

**Sustainable LA Grand Challenge
Sustainability Report Card for Los Angeles County**

Presenter:

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UCLA Sustainable LA Grand Challenge (SLA GC)

An interdisciplinary, university-wide initiative aimed at applying UCLA research, expertise and education to help transform Los Angeles into the world's most sustainable megacity by 2050.

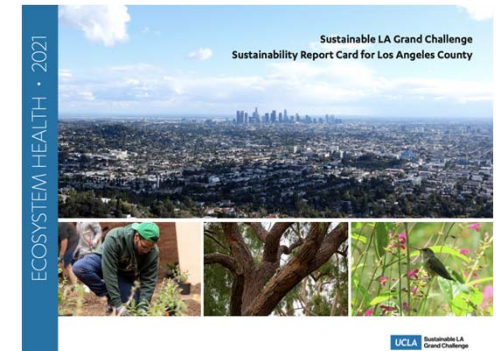
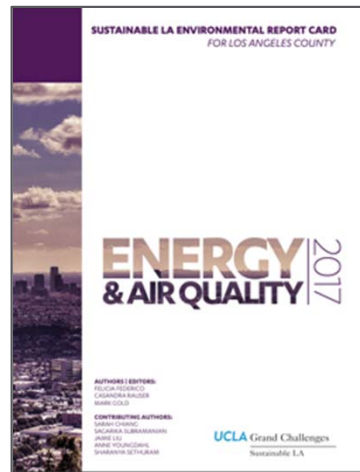
Our vision is to make Los Angeles the most livable, equitable, resilient, clean and healthy megacity, serving as an example for the world.



SLA GC Report Cards for L.A. County



Established baseline +
informed SLA GC
goals/ targets



Topic-specific comprehensive reports to track progress on goals/ targets

Ecosystem Health Report Card for L.A. County



Photos: Ashley Kruythoff, Nurit Katz, National Park Service

Our Ecosystem Health Report Card Team

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Photo: Ashley Kruythoff

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Indicators and Breakouts

LAND USE & HABITAT QUALITY Indicators

- Land Cover and Natural Area
- Protected Areas
- Habitat Connectivity and Fragmentation
- Riparian Habitat Condition
- Kelp Canopy Coverage

Breakouts

- Rare Vegetation
- Endangered Species Habitats
- Liberty Canyon Wildlife Crossing
- Rim of the Valley National Park Survey
- Ventura County Habitat Connectivity and Wildlife Corridor Ordinance
- Historical Wetland Habitat
- State of the Bay Report
- Restoration Recommendations

BIODIVERSITY Indicators

- Native Plant and Animal Diversity
- Bird Population Trends
- Rocky Intertidal Species Population Trends
- Marine Plant and Invertebrate Population Trends
- Community Science

Breakouts

- California Conservation Genomics Project
- Santa Monica Mountains Species Monitoring
- UCLA Biophilia Treehouse
- CALeDNA

THREATS TO ECOSYSTEM HEALTH

Indicators

- Wildfires
- Nighttime Light Pollution
- Impervious Surfaces
- Vegetation Greenness
- Invasive Species

Breakouts

- Ecological Recovery After Fire
- Pairing Environmental DNA with Remote Sensing to Map Biodiversity After Wildfire
- National Park Service Invasive Species Monitoring Program
- California Rodenticide Restrictions
- Los Angeles County Herbicide Restrictions

COMMUNITY HEALTH & WELLBEING Indicators

- Urban Heat Island and Heat-Related Illness
- Park and Recreation Access
- Urban Tree Canopy

Breakouts

- Urban Agriculture
- Park Quality
- Park Score
- Mountain Areas Visitation Rates
- Heal the Bay Beach and River Report Cards
- Street Tree Maintenance

Photo: Nurit Katz

Data Criteria

- Ideally the data is:
 - Collected countywide
 - Easily obtainable
 - Quantifiable
 - Published by agencies, universities, or non-profit organizations
 - Updated on at least an annual basis.
- Breakouts: data that did not meet our indicator criteria, but that we deemed important.
- Recommendations include improved data collection and monitoring

Summary of Grades



Ecosystem Health Report Card for Los Angeles County

Overall Grade:
C+

Subject Area	Grade
Land Use and Habitat Quality	C/Incomplete
Biodiversity	B
Threats to Ecosystem Health	C
Community Health and Well-being	C

UCLA Sustainable LA Grand Challenge



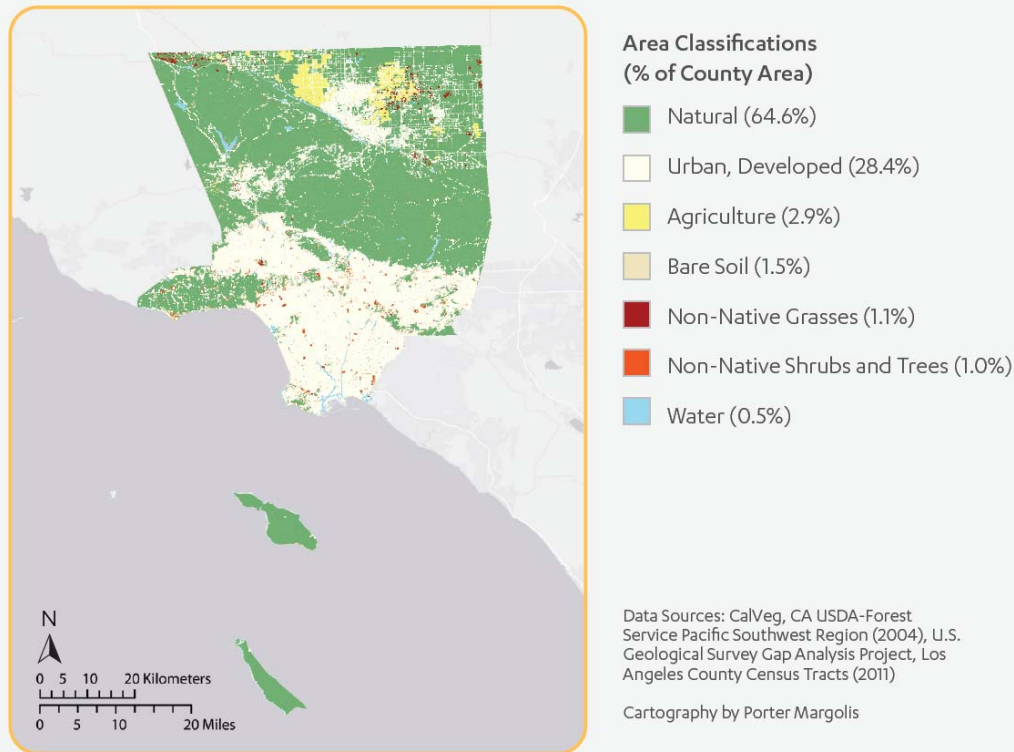
Grading Rubric

Category	Sub-Category	A+ (100%)	F (50%)
Data Availability	<i>Temporal</i>	Collected and reported on re-occurring basis	Available, but 15 or more years out of date
	<i>Spatial</i>	Collected and reported countywide	Collected and reported for select cities within the county
	<i>Financial</i>	Free and accessible to the public	Costs money to gain access
Data Alignment	NA	Directly aligns with indicator; high interpretive power	Does not align well with indicator; very low interpretive power
Policy Targets (near-term)	NA	Meets or exceeds <i>near-term</i> target; target has already been met	Meets 50% or less of target
Change over time	<i>Ecological</i>	Meets or exceeds historical levels	No longitudinal data - anecdotal negative trend
	<i>Positive Accumulation</i>	Increased ($\geq 100\%$)	Decreased ($\geq 100\%$)
	<i>Negative Accumulation</i>	Decreased ($\geq 100\%$)	Increased ($\geq 100\%$)

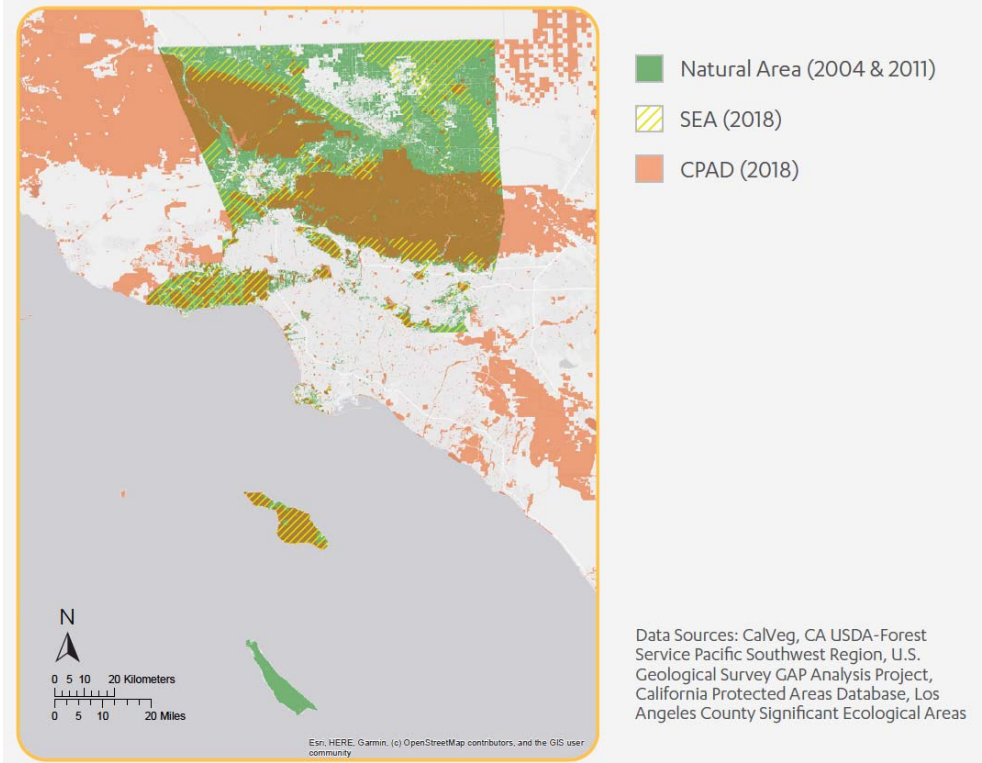
Missing Indicators: More than two missing indicators and the Chapter is *Incomplete*

Ex. Indicator: Land Cover and Natural Area

Land Cover in Los Angeles County (using data from 2004 & 2011)



Protected Natural Area in Los Angeles County (2018)



Ex. Indicator: Land Cover and Natural Area

RESULTS

- 64.6% of land cover in L.A. County is natural area (2004 & 2011)
- 50.62% of natural area is protected (2018)
- Only 33% of the county population lives within close proximity to natural area

RECOMMENDATIONS

- Setup a habitat quality monitoring program; invest in restoration of critical habitat
- Protect all remaining natural habitat



Ex. Indicator: Land Cover and Natural Area

GRADING

Category	Sub-Category	USGS Gap Analysis	CalVeg
Data Availability	<i>Temporal</i>	70% (2011)	50% (2004)
	<i>Spatial</i>	100% (countywide)	60%
	<i>Financial</i>	100% (free)	100% (free)
Data Alignment	NA	75%	100%
Policy Targets (near-term)	NA	50.62% protected in 2018 / 55% = 92.04% of 2025 goal	
Change over time	<i>Ecological</i>	64.6 % natural area land cover in 2018 / 100% historically = 64.6%	
Indicator Grade	NA	76%	
Weighting	NA	50%	



Key Takeaways

- L.A. County has extensive natural resources including many unique habitats and rich biodiversity.
- However, these natural resources are severely degraded due to urban sprawl, pollution and climate change.
- The region faces many ongoing threats including wildfire and invasive species that impact human health as well as our natural resources that we all need to survive.
- Access to these natural resources and the ecosystem services they provide is not equitably distributed.



Photo: Nurit Katz

Thank you

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Download and Read the Full Ecosystem Health Report Card here:
<https://escholarship.org/uc/item/117326k1>