

Native Landscaping Final Report



Spring Quarter 2018

Team Leaders | Chloe Ney & Hogan Fenster

Team Members | Lea Le Rouzo, Peter Lee, Audrey Salinger,
Mike Peters, Kyle Crowley

Stakeholder | Bonny Bentzin



RESEARCH QUESTION

**How do we incorporate more native
landscaping into current campus
landscaping practices?**



Goals

Short term goals

- Provide the opportunity for interdisciplinary education on outdoor spaces at UCLA
- Improve underutilized spaces on campus with functional landscaping

Long term goals

- Improve campus *ecology and biodiversity*
- Reach UCLA's *Carbon Neutral Initiative Goal By 2025*
- UCLA as a model for *ecologically sound urban landscaping*



Three Pronged Approach



Outreach

Survey

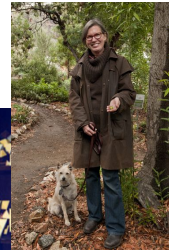
**Map &
Palette**



Outreach — Methodology

Key informant interviews

- Cully Nordby, Tom Gillespie, Nurit Katz, Alison Lipman, Stephanie Landregan, Lisa Novick, Wayne Dollase
 - Create a more thriving, biodiverse ecosystems by incorporating natives
 - Ensure UCLA will intend to plant non-invasive plants as lawn areas are transformed
 - Promote education through purposeful landscaping





Outreach — Methodology

Outreach Interviews

- Chico State, Stanford University, Santa Monica College, UC Santa Barbara
 - UCLA can benefit from space-based planting and using green spaces for education
 - Natives must be incorporated gradually and based on location, rigid guidelines are constricting

Stakeholder, Capital Programs, Facilities Meetings

- UCLA is already moving towards integrating natives and drought-tolerant landscaping
 - UCLA stakeholders should review pallets and guidelines as underutilized spaces are transformed
 - Minimize pesticide use, mowing, watering, maintaining, polluting (exhaust)

Survey — Methodology

- Survey based on key informant interviews and from UC Stormwater Initiative Survey
- Filled out by a variety of **81** community members, spanning **33** majors/departments
- Gauged knowledge of native plants
- Determined preferences/priorities for landscaping

MAJOR/DEPARTMENT	COUNT
Anthropology	1
Asian Languages and Linguistics	1
Biochemistry	3
Biology	5
Chemical Engineering	2
Chemistry/Materials Science	1
Chicano Studies	1
Chinese Language and Culture	1
Civil Engineering	2
Communication	1
Communication Studies	2
Computer Science	6
Ecology and Evolutionary Biology	5
Economics	3
Electrical and Computer Engineering	1
English	4
Environmental Science	16
Financial Actuarial Math	1
Geography	7
Geology	1
History	1
International Development Studies	1
Materials Engineering	2
MCDB	1
Mechanical Engineering	1
Neuroscience	1
Political Science	1
Psychobiology	3
Psychology	1
School of Dentistry	1
Sociology	1
World Arts and Cultures/Dance	1
N/A	2
Total	81

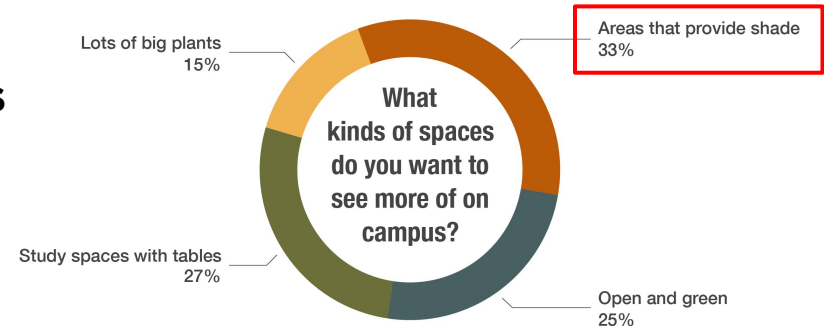
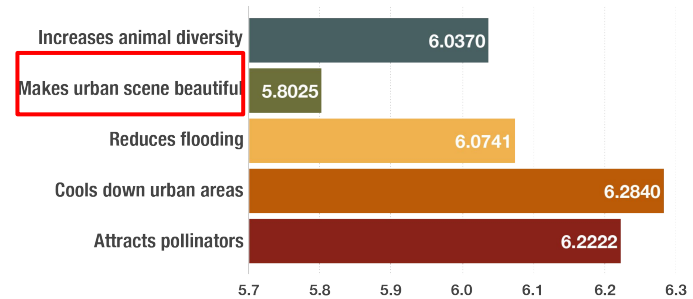
List of majors surveyed

Survey — Results

Functionality

- The survey helped demonstrate the clear demand for **functional** landscaping over **aesthetics**
- Respondents wanted to see more **trees** and areas that provide **shade** to facilitate working outside on laptops

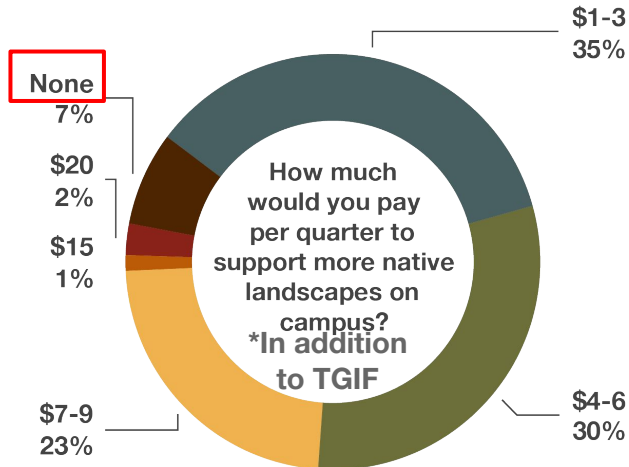
Please rate each of these values. 1=Does not matter at all
7=Matters a lot



Survey — Results

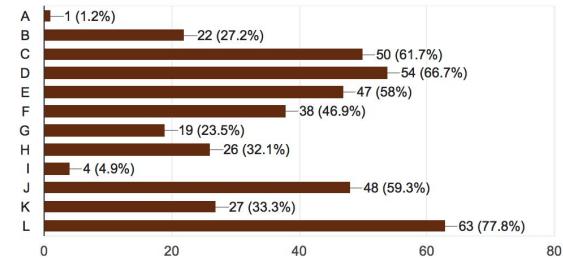
Funding

- People are **willing to pay** to make sure this happens!



























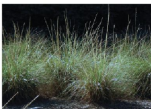

Native Landscape Perception

- People could identify native plants with a **52.4%** accuracy



Native Plant Preferences

1 - Do not want to see at all 7 - Definitely want to see				
Yarrow	<i>Achillea millefolium</i>	6.148148148		
Tree anemone	<i>Carpenteria californica</i>	6.12345679		
Channel Islands tree poppy	<i>Dendromecon harfordii</i>	6.012345679		
California tree poppy	<i>Romneya coulteri</i>	5.987654321		
California brittlebush	<i>Encelia californica</i>	5.962962963		
California buckeye	<i>Aesculus californica</i>	5.950617284		
California bay	<i>Umbellularia californica</i>	5.666666667		

1 - Do not want to see at all 7 - Definitely want to see				
Toyon	<i>Heteromeles arbutifolia</i>	5.49382716		
Pacific madrone	<i>Arbutus menziesii</i>	5.456790123		
Bearberry	<i>Arctostaphylos uva-ursi</i>	5.12345679		
Coyote brush	<i>Baccharis pilularis</i>	4.851851852		
Dune sedge	<i>Carex pansa</i>	4.62962963		
Deergrass	<i>Muhlenbergia rigens</i>	4.62962963		



Palette — Methodology

- **Local** California Native Plants
- Focus on UCLA microclimates
- Looked at Santa Monica Community College, Theodore Payne Foundation, and Sustainable Landscape Case Study



Palette — Results

- 100+ choices for shrubs, grasses, and trees in the 90095 zip code alone
- 50% biomass of native plants

California Bush Sunflower



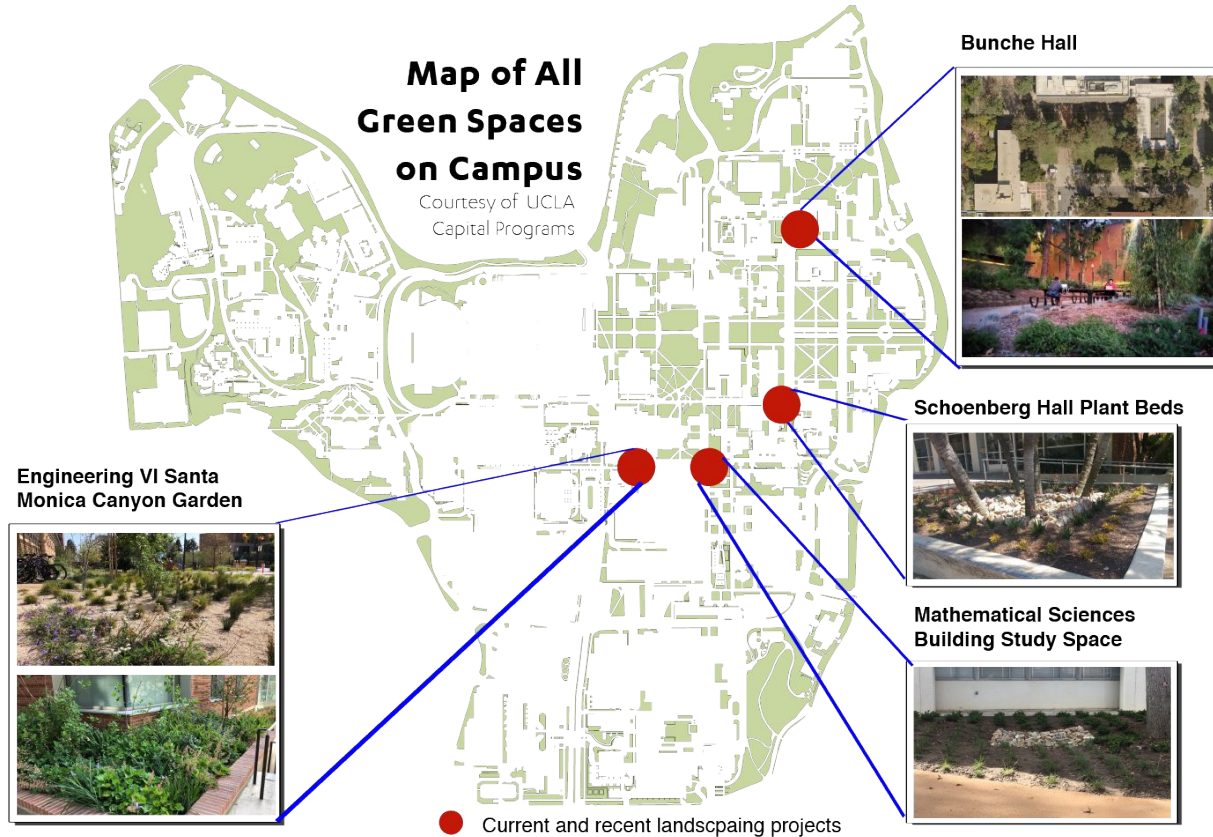
Deer Grass



Box Elder



Map — Results





Conclusion

Recommendations

- Enforce **50% native/50% non-native** biomass rule on future projects
- Proceed with consistent **landscape architect/landscaping task-force** committee meetings and review
- Future SAR projects: conduct **cost-benefit analysis** on water usage and maintenance



We would like to thank...



Bonny Bentzin & Nurit Katz

Our stakeholders who provided us guidance and valuable contacts.



Chris Gallego & Raul

At Facilities Management who offered us on-site information.



Gregory Pierce & Kelsey Jessup

At the Luskin Center who guided us through the survey process.



The Green Initiative Fund

For providing us funds for Earth Day and Survey Efforts.



Capital Programs

For providing us with maps and GIS data.



Lisa Novick

For providing us with invaluable information on native plants.





Thanks!

Any comments, questions, or concerns?