



# UCI Naturescape Vision

December 2018

# Introduction



Credit: John Conley

UCI's Naturescape Committee was convened to provide guidance on the role of campus open space resources, collectively referred to as UCI's "Naturescape", in support of Strategic Plan goals. Establishing a cohesive vision and strategy for the 500+ acres of Naturescape comes at a critical juncture as UCI moves forward with planning for significant new facilities across the campus.

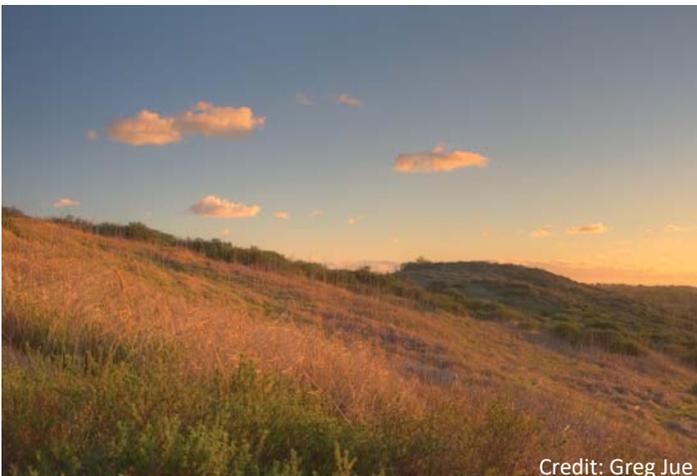
UCI has a generational opportunity to re-envision the function and management of campus-wide open space to support our mission. Providing a strong vision and sound implementation strategies, the Naturescape has the capacity to unite different core goals and functions including research, teaching, wellness, sustainability, and community engagement. Unlike many other assets, open space is irreplaceable if lost, meriting careful planning, investment, and management as the campus moves forward.

By its very nature, the Naturescape represents what is unique to our campus and community; it can be the critical tie between scholarship, teaching and the biological and human heritages of the region. While UCI currently serves an important regional role as a cultural and intellectual hub, this purpose can be greatly enhanced through an exceptional Naturescape system, further promoting UCI as a regional hub and a favorite community destination.

The following recommendations paint a broad vision for how UCI can transform its Naturescape to benefit the campus community and the region. UCI's Naturescape has the opportunity to build bridges and bring people together by serving as a connector to integrate campus neighborhoods and by engaging our regional partners. Achieving this vision will require investment in programs, physical improvements, community connections, and management, providing long term benefits in return.

# Vision Statement

UCI's "Naturescape" is the interconnected open space system on campus. This outdoor system uniquely serves key campus functions including campus life & community activities, art & culture, habitat & watershed management, recreation, wellness and especially interdisciplinary teaching and research supporting the concept of the campus as a living laboratory. The Naturescape includes several elements, including parks, greenbelts, community & botanical gardens, trail systems, field research sites, upland and wetland habitat areas, and urban outdoor spaces. Visioning the future of UCI's Naturescape is a once-in-a-generation opportunity to develop a campus asset that should be valued in the same fashion as buildings and other core facilities. The Naturescape should be actively and collaboratively planned, managed, and preserved to fully serve UCI's mission.



## Overarching Goal

**Optimize UCI's Naturescape to serve campus research, teaching, community engagement, wellness, and sustainability needs through program, physical planning, and land management improvements that reflect and capitalize on the unique human and biological heritage of our region.**

This goal will be attained through the following strategies:

# Strategy 1:

Provide locations for place-based research, teaching and community engagement to improve opportunities for interdisciplinary scholarship and active learning



## General Approach

- Identify a portfolio of sites throughout campus to include a variety of habitats, environmental conditions, patch sizes, and human use patterns ranging from interstitial spaces (e.g. planters, walkway margins, etc.) to entire ecosystems (e.g. San Joaquin Marsh, Ecological Preserve).
- Provide accessibility and interpretation to faculty, staff, students, and the public
- Include secure sites for controlled experiments and equipment
- Provide certainty through long term commitment to the dedicated uses of such sites
- Provide outdoor learning spaces to support class field visits and teaching
- Provide an interpretive trail system and a public art program linked to the UCI Institute and Museum for California Art (IMCA) to inspire learning and innovation for a healthy and vibrant campus environment
- Link elements of a botanical garden with scholarly themes important to UCI's academic programs to foster a sense of connectivity and ownership in the Naturescape
- Enhance traditional use of the park for campus and community outdoor functions and for new uses that promote a positive campus culture

## Specific Approaches for Core Sites

- Transform Aldrich Park to function as a campus botanical garden serving research, teaching, community engagement, and wellness
  1. Establish a variety of themed, interpretive plant collections that reflect our regions' unique biological (historic regional plant communities), and human heritage (native peoples, settlement history) in a manner that showcases and maximizes sustainability and wellness
- Integrate UCI-owned protected habitats into the built campus to encourage research, teaching and community engagement without jeopardizing the ecological integrity of these sites
  1. Ecological Preserve
  2. San Joaquin Marsh Reserve
  3. Other campus lands enrolled in the regional conservation plan
- Create a field research site with the physical infrastructure for simulating and studying the consequences of global change, including warming, drought and sea level rise within terrestrial and aquatic habitats

# Strategy 2:

Establish access points, activity nodes, and linkages to facilitate entry, community engagement, and long-term functioning of Naturescape activities

- Support UCI Strategic Plan Goal 3.4 to make UCI a favorite destination for the Orange County community through joint public/campus events, engaging public spaces and arts initiatives
- Provide public access points for pedestrians, bikes, and vehicles
- Provide support and staging areas for engagement and academic programs
- Improve trail systems to link programs and activities including enhanced connections with community partners such as University Town Center, the Irvine Ranch Water District (IRWD) San Joaquin Marsh and Wildlife Sanctuary trail system, and City and County regional trails.
- Promote interactions from disparate programs on campus by encouraging connectivity along trail system and pedestrian pathways



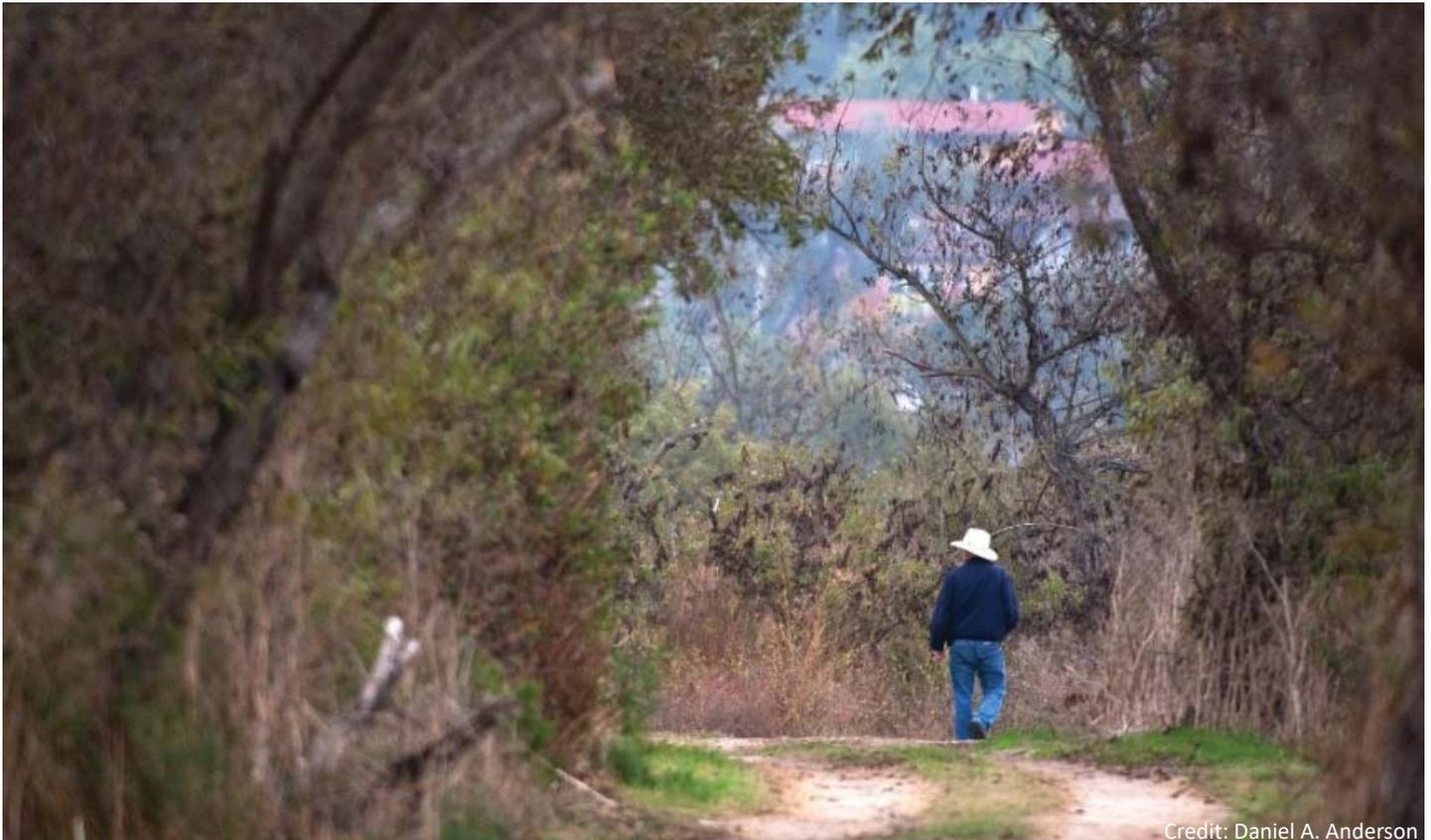
# Strategy 3:

Leverage and engage with UCI's community partnerships and neighbors to facilitate connectivity between UCI's Naturescape and the surrounding human and natural landscapes

- Support UCI Strategic Plan Goal 3.4 to partner with Orange County to develop a water conservation model that provides a paradigm for 21st century water management
- Improve campus pedestrian and bike trail systems to improve wayfinding, support community engagement, and provide greater visibility and recognition to UCI's open space resources
- Build on existing relationships with community partners including University Hills, University Town Center (Irvine Company), Natural Communities Coalition (NCC), the IRWD, and Shadetree Partnership
- Cultivate new relationships with other public and private partners engaged in environmental, art & cultural interests
- Engage alumni and external community to support fundraising related to Naturescape elements



Credit: Greg Jue



Credit: Daniel A. Anderson

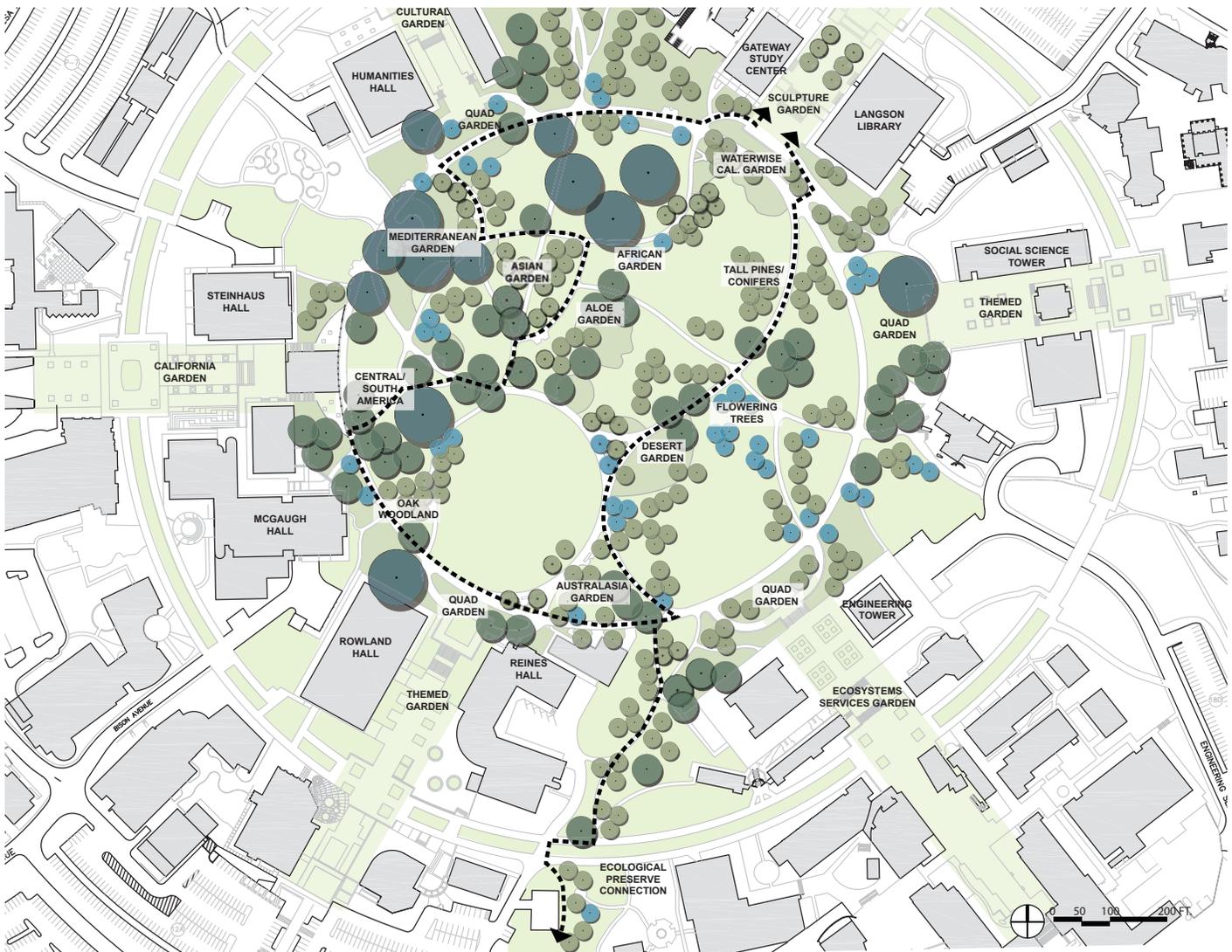
# Strategy 4:

Integrate the management of UCI's Naturescape into other dimensions of campus management, including programming, implementation, and stewardship in a way that considers academic needs, sustainability, wellness, and conservation

- UCI's Naturescape should be viewed and managed as an integrated whole
- Establish a structure for campuswide coordination and stewardship of UCI's Naturescape
- Develop administrative structures and campus culture for effective horizontal and vertical communication across campus units over the visioning and management of the Naturescape, including merging the relevant components of facilities management and academic programming
- Promote interdisciplinary academic programs engaging UCI's Naturescape including student internship programs
- Pursue fundraising to provide management endowment



# Big Idea: Main Campus Botanical Garden



Establishing a main campus botanical garden, centered in Aldrich Park, can serve as the focus of UCI's Naturescape. The garden would enhance existing landscape areas to support academic and cultural uses, wellness and recreation, and community engagement. The botanical collections would include adjoining areas of the campus including ring mall, academic malls and plazas, adjoining trails, and greenbelts. Academic quads could host academic-themed gardens related to each school.

Themed plantings would support interdisciplinary teaching, research, and community enrichment such as geographically-based, ecosystem-based, and culturally-based collections. Outdoor public spaces would host

groups, classes, and community events. An integral public art program would be curated through the UCI Institute and Museum for California Art. Learning, wellness, and interpretive programs would use the trail system, botanical collections, and public art displays supported by interactive communications such as specialized mobile apps engaging people with the environment.

A botanical garden that includes support facilities such as maintenance, greenhouse and storage, could replace many of the functions of the North Campus Arboretum, with the exception of secure experimental research plots, which would be provided in other areas of the campus.

# Big Idea: Field Research & Teaching Sites

UCI's Naturescape should accommodate field research sites with a variety of physical characteristics to host interdisciplinary research projects. There is adequate land area within currently designated UCI open space areas to accommodate current project demand, but a process for assigning, monitoring, and protecting research plots for short, medium and long duration projects is needed. Sites should include the infrastructure for simulating and studying the consequences of global change, including warming, drought and sea level rise within terrestrial and aquatic habitats.

Experiments may vary from less intrusive studies of intact natural areas to highly-manipulated research plots. Certain research plots may require security fencing or other protection of research work and equipment, while others may accommodate public access or serve an interpretive function.

Outdoor learning spaces should be established near frequently visited field research sites (e.g. botanical garden, San Diego Creek/San Joaquin, Ecological Preserve) and other open space areas. These spaces can consist of simple improvements for outdoor seating and shade to host class discussions and staging for field visits and research. Outdoor learning spaces would be heavily used by faculty from across the campus if established and publicized.



# Big Idea: Watershed Resources



UCI can leverage its physical location adjoining San Diego Creek, San Joaquin Marsh, and Upper Newport Bay, and its academic strengths in water resources, habitats, and oceans, to establish a living laboratory for achieving stormwater neutrality, watershed research, education, and demonstration. Currently designated campus open space areas include a range of wetland and riparian resources which can be restored or improved to more fully serve and demonstrate water quality, stormwater capture and reuse, drought resilience, and recreation.

UCI can build on its existing relationships with watershed-focused public resource agencies, the Irvine Ranch Water District, and the OC Public Works Watershed Program to pursue large scale grant-funding opportunities to demonstrate further leadership in these important environmental areas. UCI can also build on current partnerships such as the UCI-hosted OC/Disney Children’s Water Festival and county-wide Water UCI community college outreach programs to further build community outreach on water issues.

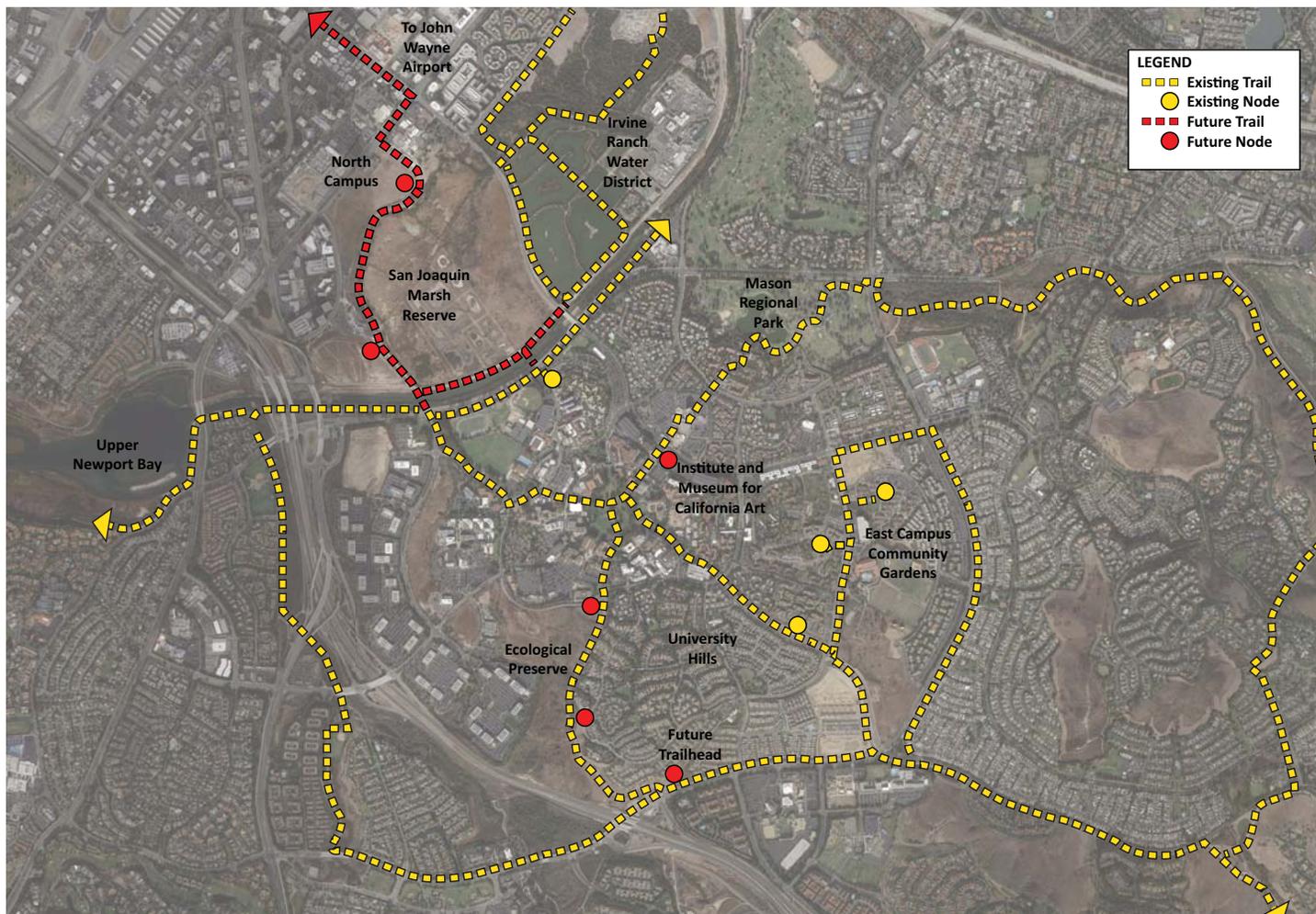
# Big Idea: Build Activity Centers & Connectors



This exhibit identifies physical planning opportunities to support UCI’s Naturescape Vision, Strategies, and Big Ideas. Concept-level opportunities are identified for field research sites, outdoor learning spaces, trail systems, activity centers, and botanical and community gardens. These concepts build from the established Long Range Development Plan (LRDP) open space

framework, improving already-dedicated open space areas. The value added to the campus environment through such improvements would make a significant difference in the quality and productivity of these areas to serve UCI’s mission and improve the experience of the campus community and visitors.

# Big Idea: Regional Linkages & Partnerships



UCI's Naturescape provides significant opportunity for campuswide and regional linkages, supporting the goal of Strategic Plan Pillar 3 to build regional connections. This will include completing "missing links" in existing campus trail systems and working with community partners to build new connections to regional trail systems. Linkages will also include opportunities to connect the main campus to San Diego Creek, San Joaquin Marsh, North Campus, and Newport Bay and to build connections to regional resources including public walk/bike/hike trail systems, natural areas, and wildlife corridors.

Existing relationships with regional partners such as the Natural Communities Coalition, the IRWD, Cities of Irvine and Newport Beach, OC Parks, and State Parks can be strengthened and new relationships established to support collaborative funding opportunities.

# Big Idea: Integrated Management Model

A management model that integrates planning, research and teaching, public engagement, and facility maintenance will enhance the ability of UCI's Naturescape in supporting Strategic Plan goals. The Naturescape should be actively planned, managed, and preserved to fully serve UCI's mission, and done so in a collaborative manner that reflects the interests of the entire campus community and off-campus stakeholders.

Other universities, including UC Davis, have adopted models where staff, faculty, and students engage in facilities management, horticulture and botany, environmental science, art curation, and sustainability. Integrated management fosters a common vision and strategy for the stewardship of campus open space resources.

UCI currently manages over 500 acres of Naturescape through a mosaic of UCI-affiliated entities. A cohesive model focused on common management goals and approaches could add significant value to these land areas. An example of integrated management is the campuswide response to the Shothole Borer attack on UCI's urban forest. Expanding this type of collaborative management to all of UCI's Naturescape would have campuswide and regional benefits.



## Example: UC Davis Arboretum & Public Garden Management Model

All campus open space is managed as part of a public garden

*What makes us different...*

- **We highlight** the academic richness of UC Davis through our landscapes.
- **We collaborate** with environmental agencies, faculty and scientists locally and internationally on research and teaching.
- **We demonstrate** and share best practices in sustainable horticulture with the public.
- **We engage** our community to co-create in the design, creation and care of our gardens.
- **We provide** students and community members with the resources and experience necessary to tackle environmental leadership issues of worldwide significance.
- **We plan** for the future and advise local and campus leaders on best practices to address climate change.

# Conclusion

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- In addressing the need to replace North Campus facilities, UCI has a once-in-a-generation opportunity to transform the use and stewardship of over 500 acres of irreplaceable land resources to support important research, teaching, and community engagement elements, along with a shared management approach that integrates academics and operations.
- Achieving this vision will require strategies to establish an interrelated system of place-based research & teaching sites, connected recreation & interpretive trail systems, and community partnership opportunities.
- Implementing the Naturescape strategy and program elements would occur by enhancing existing open space assets to serve campus needs and strategic planning goals. This represents an opportunity to connect programs on campus, leverage our landscape for activities that serve our core functions of teaching, research, and engagement, and provide opportunities for alumni interactions and various forms of fundraising.
- Full realization of this vision will truly open the campus as a regional open space destination, consistent with the original 1963 vision for an interconnected campus and community to support our goal of helping Orange County (and California) live responsibly and well in the 21st century.

## Recommended Next Steps

The next steps in validating these concepts and developing implementation strategies should involve more detailed consideration of academic, physical planning, program, and budget needs:

1. Empower Academic Planning, Division of Finance & Administration, and the Academic Senate to put in place an operation and funding plan supporting the management of the Naturescape elements supporting collaborative research, teaching, stewardship, and outdoor learning.
2. Develop an implementation plan to move the UCI Arboretum to a program distributed across main campus. This includes a conceptual program, capital and operating budget, and illustrations for all main campus botanical garden elements to support the fundraising campaign in collaboration with the Arts & Culture District planning and the Schools. This should include the decommissioning and short-term re-visioning the current UCI Arboretum program.
3. Invest in the program management and grant-writing necessary to design and fund a large scale watershed initiative, collaboratively with IRWD, County of Orange, and City of Irvine.
4. Communicate and engage leadership across campus in the developing vision and begin the collaborative process to bring the diverse values and views on open space to the planning process.

