



OCCIDENTAL COLLEGE



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Community Resilience Building Assessment

Summary of Findings

March 2025

Sponsored by the Office of the President and the Office of Sustainability

with support from Second Nature and The Nature Conservancy

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Occidental College, Los Angeles, California

Community Resilience Building

Overview

The need for academic institutions, municipalities, regional planning organizations, states, and federal agencies to increase resilience to extreme weather events and a changing climate is strikingly evident among communities across the state of California. Recent events such as wildfires, droughts, earthquakes, flooding, air quality declines, and more intense and extended heat waves have reinforced this urgency and compelled leading communities and institutions like Occidental College to proactively collaborate on planning and developing actions that mitigate risk and enhance resilience. Ultimately, this type of leadership will reduce climate vulnerability at Occidental College and reinforce the strengths of our people, infrastructure, and ecosystems. This work will also serve as a model for other communities in California and across the Nation.

Recently, Occidental College (Campus) agreed to partner with The Nature Conservancy (TNC) and Second Nature to collaboratively launch a community-based process to assess extreme weather and climate change impacts and to generate and prioritize actions to help further improve resiliency, sustainability, and equity at Occidental College. In March 2025, the Occidental College Core Team hosted a workshop as part of their Community Resilience Building process that was facilitated by TNC and Second Nature. The core directive of this effort was engagement with and between community members (i.e., students, staff, and faculty) to define strengths and vulnerabilities and develop priority resilience actions for the greater campus community at Occidental College.

Occidental College Community Resilience Building Workshop's central objectives were to:

- Define climate-related hazards of concern for campus and surrounding communities;
- Identify existing and future strengths and vulnerabilities;
- Identify and prioritize actions for the campus to improve climate resilience;
- Identify opportunities for campus to collaborate with the community, and beyond;
- Gather feedback from community representatives on resilience on campus;
- Complete initial Climate Resilience Assessment to advance Occidental College's Climate Commitment.

The Occidental College campus community benefited from a unique “anywhere at any scale”, community-driven process called Community Resilience Building (CRB) (www.CommunityResilienceBuilding.org). The CRB's tools, reports, other relevant planning

documents, and a local fact sheet were integrated into the workshop process to provide decision support around shared issues and existing priorities across the Occidental College campus. Using the CRB process, the participants produced the findings presented in this Summary of Findings. This includes an overview of the top hazards, current concerns and challenges, existing strengths, and proposed actions to improve resilience to hazards and climate change on campus, today and in the future. The focus of this CRB was on the Occidental College campus within the City of Los Angeles.

The summary of findings transcribed in this report, like any that concerns the evolving nature of risk assessment and associated action, is provided to workshop attendees and other stakeholders alike with the full knowledge that updates will be required over time. The leadership displayed by Occidental College on community resilience building will benefit from the continuous and expanding participation of all those concerned.

Summary of Findings

Top Hazards and Vulnerable Areas for the Community

Prior to the CRB Workshop, the Occidental College Core Team identified the top hazards for the campus. The hazards of greatest concern included extreme heat and extended heat waves, wildfires and associated declines in air quality, earthquakes, and flooding from intense precipitation events. Additional hazards highlighted by participants during the CRB Workshop included drought and various types of high wind events. These hazards have direct and increasing impacts on the infrastructure, community members (staff, faculty, students, and visitors) and the environment including campus, surrounding neighborhoods, open space/park areas like Fiji Hill, student housing facilities, campus facilities and operations (e.g., dining) supportive municipal facilities, social support services, and other critical infrastructure and community assets at Occidental College.

Current Concerns and Challenges Presented by Hazards

The Occidental College campus community has several concerns and faces multiple challenges related to the impacts of natural hazards and climate change. Recently, Occidental College and the greater Los Angeles area have experienced a series of highly disruptive and damaging hazard events, including high winds and wildfires (Oct. 2019), drought (Oct. 2021), Hurricane Hilary (Aug. 2023), severe winter storms (Dec. 2023 – Jan. 2024), and extensive wildfires (Jan. 2025). Specific impacts on students, faculty, and staff due to these events include: localized flooding from stormwater runoff, high-wind events cutting power to campus, and poor air quality due to

wildfires. The magnitude and intensity of these events in Los Angeles and across California have increased awareness of natural hazards and climate change, thus motivating communities, such as Occidental College, to proactively improve their resilience and sustainability.

This recent series of extreme weather events highlights that the impacts from hazards are diverse. In the city of Los Angeles and on the campus of Occidental College, this includes localized flooding around buildings and facilities as well as property damage (due to stormwater runoff from intense storms and heavy precipitation) and utility outages (lasting several days or more) from extreme winds shutting down the power grid. Longer periods of elevated heat, particularly from July to October, have raised concerns about vulnerable segments of the campus community and adjoining neighborhoods. The combination of these issues presents a challenge to preparedness and mitigation priorities and requires comprehensive, yet tailored, actions for specific locations and/or areas at Occidental College.

The CRB Workshop participants were generally in agreement that Occidental College is experiencing more intense and frequent hazards and weather events that are being amplified by ongoing climate change. Additionally, there was a general concern about the increasing challenges of preparedness for worst-case scenarios at any time of year. Particularly, concerns were raised about the late summer and fall/winter months, when more intense winds often coincide with major wildfire events. Workshop participants identified the complications resulting from simultaneous hazards as a significant concern for Occidental College going forward.

Specific Categories of Concerns and Challenges

As in any community, Occidental College is not uniformly vulnerable to hazards and climate change. Certain locations, assets, and groups have been and will be affected to a greater degree than others. Workshop participants identified the following items as the community's key areas of concern and challenges across several broad categories. The list below represents feedback from individual workshop participants and has not been fact-checked by the authors of this Summary of Findings.

College Functions, Operations & Growth:

- College boundaries are very gradational with the surrounding neighborhoods (no gates around the circumference), which occasionally leads to issues; for example, during the COVID-19 pandemic, the campus was viewed and used as a park within the City despite being essentially vacated by students.
- While communications amongst students are solid and consistent, communications from faculty to students and between faculty have been challenging in the post-COVID environment on campus.
- Less than satisfactory communication from the administration to the student body regarding the extensive clean-up activities due to the recent wildfires in advance of students returning from break. The majority of students were unaware of the level of work conducted, resulting in a lack of appreciation by the student body for the administration, faculty, and staff (“missed opportunity to bridge in a moment of crisis”).
- Administration is known for making slow decisions, especially involving final decisions about allocating funds for initiatives and projects. There is uncertainty around the question of who makes the final decision on funding direction amongst the larger campus community.
- Decision-making around long-range planning processes takes a very long time.
- Ongoing concerns regarding the perennial issue of students and the College being unaligned on key issues and a lack of perceived solidarity/partnership, despite recent efforts to bridge when divides occur.
- Estimation by staff that the campus currently has half the necessary staffing levels needed to adequately maintain green spaces and landscaping (i.e., “we just have to let things grow wild”).
- Many essential staff reside well away from campus, which presents challenges in getting them there during extreme weather events.
- Lack of a regularly operating campus-wide shuttle for the campus community results in overreliance on privately owned automobiles on campus.
- Concerns regarding support of on-campus childcare for staff and faculty during emergencies.
- Occidental College relies on communication via email, but the preference of students is text and social media, resulting in missed correspondence.

Emergency Management and Preparedness:

- Growing concerns regarding the general uncertainty about the extreme nature of hazards and how they will change over time as the environment shifts to higher extreme and average temperatures in California. This uncertainty presents a challenge for emergency management professionals.
- Current staffing levels result in a more reactive approach (versus proactive) to preparing for and ultimately reducing the impacts currently presented by immediate (i.e., wildfires) hazards and their impacts (i.e., extreme heat coupled with low air quality). Current staffing levels leave the campus underprepared and vulnerable.
- Limited number of staff results in teams becoming overextended during emergency responses, particularly when staff who live farther from campus are unable to get to campus (“small team is a strength and challenge”).
- Small number of staff results in institutional knowledge resting amongst very few on Campus.
- Communications channels on campus are not clear, with many unused and non-integrated list servers that have loose and changing standard operating procedures. This can lead to confusion and messages not reaching the intended audiences during major events, which should not be the case for a small campus like Occidental College.
- Concerns were raised that external news and event updates don’t effectively reach the on-campus community via existing on-campus emergency communication system.
- Growing concerns that campus is susceptible to wildfire outbreaks from careless community members as well from unhoused individuals that have in the past set up camps with cooking fires in secluded areas either on or adjoining campus (i.e., Fiji Hill).
- Concerns about evacuating campus were raised due to the perceived density of the surrounding neighborhoods and potential for the freeways to be quickly congested. Ongoing concerns with the potential for major disruption and damage from earthquakes.
- In the event of large-scale emergencies, first responders with the City (LAFD, LAPD) may not be able to respond to needs on campus, which would require Occidental College to “fill the gaps”.
- Campus is situated on a hill, which presents accessibility challenges for students, particularly during periods of flooding from stormwater runoff and extreme heat.
- Johnson Student Center is the only place available to host students and provide dining during major events.
- Concerns were raised about lack of student engagement as well as limited familiarity with emergency procedures and support.

Campus Buildings & Facilities:

- Beautiful historic buildings on campus require relatively more routine maintenance and often have restrictions placed on what is allowable when renovating.
- Lack of window tinting (UV reflection) and/or awnings on many south-facing windows in off-campus housing results in higher indoor temperatures for students.
- Older residence halls (Chilcott, Erdman) are vulnerable to earthquakes and in need of renovation to make earthquake resistant.
- Emmons Wellness Center is too small to accommodate full campus needs in the event of a major disease breakout. Facility does not have a backup power generator.
- Uncertainty that identified common gathering spots during major events have emergency power, including Evans Hall and Emmons Wellness Center, which require power to maintain medicines and vaccines.
- Concerns about the potential impacts to special collections in the campus library and elsewhere from smoke, flooding, and lack of temperature control in the event of a power outage that shuts down air conditioning.

Stormwater & Power Systems:

- Increases in the need to manage stormwater without adequate availability of green stormwater infrastructure (i.e., bioswales, rain gardens, etc.) on campus.
- Stormwater runoff during intense precipitation events results in pathways that become inaccessible due to flooding, particularly around the Arthur G. Coons Administrative Center.
- Limited number of locations to capture, store, and distribute water to satisfy the needs of campus regularly and during heat waves when water availability from Los Angeles may be reduced. Uncertainty about the existing water capture system under Sterns Hall.
- Limited number of solar panels and arrays on campus.
- Power loss on campus during blackouts or brownouts across Los Angeles is a very real and ongoing concern.
- Extreme wind events often result in power being shut off by the city of Los Angeles to avoid the potential for sparking wildfires when live power lines are knocked down.
- Off-campus student housing (owned by Occidental College) has lost power during heatwaves, which re-emphasizes the over-dependence on the power grid, coupled with the impacts on indoor heat levels for students.

Open Space, Trees & Natural Resources:

- Fiji Hill has a high concentration of invasive plant species and, therefore, was perceived as presenting a higher wildfire risk to the entire campus.
- Concerns about the need to increase the tree canopy on campus to better protect the community during heatwaves (“need for a cooler campus via more trees”).



Credit: Occidental College

Current Strengths and Assets

Just as certain locations, facilities, and groups at Occidental College stand out as particularly vulnerable to the effects of hazards and climate change, other features are notable assets for resilience building. Workshop participants identified the following items as their community's key strengths and expressed interest in centering them as the core of future resilience-building actions.

The small community feel of campus emerged as a strength, and Occidental College's commitment to care was felt by many participants. Participants celebrated the administration's ability to act quickly during major events, the campus's vibrant green spaces, as well as efforts of the Emergency Response Team, among others.

Similar to the above discussion, the list below represents the opinions of the workshop participants, and these statements were not verified by the workshop facilitators. The list below does not reflect the frequency of comments or commonalities in point of view between participants.

College Functions, Operations & Growth:

- Occidental College has a tight-knit community where members check in on each other routinely and especially during major events through informal support networks as well as formal institutional support from faculty, staff, and the Emergency Response Team, among others (“makes one feel wanted”). For example, students have set up a mutual aid fund to help other students directly impacted by the recent wildfire.
- A participant was pleased by campus clean-up efforts after the recent wildfires, before students returned from break. Clean up involved hiring a hazard response company to come on campus to conduct a “deep clean,” including testing soil, water, and air, and remediate any concerns caused by ash from the wildfires. Clean-up also included changing all the air filters in dorms and other buildings.
- The small size of campus and experience of the administration allows for a quick response to emergencies without getting overly encumbered by the process.
- Re-use program that takes in materials as students move out (i.e., small furniture, dorm supplies, etc.) and sells them at low cost to incoming students.
- Administrative staff value input from community members on different communication strategies, with inclusivity being the primary focus. However, this can sometimes slow down the decision-making process.

- Passionate and involved student body fully committed to the student government, which has an elected Senate along with three other branches, including the Diversity and Equity Board and the Honor Board. Student government positions are paid, and compensation is provided up to five hours a week.
- Students voted to establish a fee (SUSFUND) that can only be spent on sustainability projects on campus and is managed by a fourth branch of the student government, focused on climate issues. This demonstrates the student body's commitment to advancing sustainability actions in a place they call home.
- Universal willingness on campus to be more effective at sustainability initiatives and projects, especially when actions can also increase the health, safety, and well-being of students, faculty, and staff.
- Campus is situated in a predominantly residential neighborhood of a large urban landscape, but not located in downtown Los Angeles, which can add external pressures on academic spaces ("tucked in away from the heart of the City"). This location also increases access to resources and expertise without being downtown.
- Academic curriculum and programs, such as those in the Department of Biology and the Urban and Environmental Policy Institute, have a community-based focus and provide immediate and ongoing opportunities for student involvement and academic growth.
- Student body is passionate about issues related to sustainability, health and well-being, and safety.
- Most students reside on campus and seek to become engaged because campus is viewed by students as their home while at Occidental College.

Emergency Management and Preparedness:

- Strong and supportive relationships between County, City, and campus emergency management professionals in terms of planning, resource and recovery, communications, and resource sharing.
- Emergency Response Team has completed an overhaul during the last three years, which has allowed for a more robust and comprehensive approach to addressing community safety on campus from hazards. Team now works in a multi-disciplinary and collaborative way to ensure campus continues to operate during crises and that communications occur in a timely and informative manner for students, staff, and faculty, both on and off campus.
- Clear benefits to have an experienced Emergency Response Team that is very responsive and nimble when engaging with managing the emergency needs of the campus before, during, and after routine and major events.
- Emergency Response Team has extensive experience responding to a variety of crisis events as well as training on foreseeable situations that have not occurred. Team recognizes

that there is always more work to do, but are relatively better prepared than other academic institutions of similar size.

- Oxy Alert is an effective means of communicating with students about major events because it relies on methods other than email, which is not a preferred communication method amongst the student body.
- Freeway system around Occidental College effectively serves as a large fire break for wildfires that originate and spread from the more mountainous natural areas surrounding greater Los Angeles (“campus is surrounded by many freeways”).
- High level of awareness regarding the impacts of climate change given the campus’s location within Los Angeles and the state of California, which are routinely dealing with hazards such as wildfire, heat, and flooding.
- Campus Safety Advisory Committee provides a forum through which students, faculty, and staff engage in campus safety topics and issues.
- Campus has an Extreme Heat Implementation Plan in the Emergency Management Plan.

Campus Buildings & Facilities:

- Proactive Facilities Department that places a great deal of attention on planning for future and unforeseen events (i.e., “If something were to happen events.”).
- Ongoing efforts by the Facilities Department to install air conditioning in student housing and dorms have helped to reduce the stress levels across the student body and improve their overall living experience while on campus.
- Window tinting for UV reflection and awnings on south-facing windows in off-campus student housing is built into upcoming remodeling plans.
- Berkus Hall and various facilities buildings have been designed and built to be resistant to earthquake impacts. Additional buildings on campus are in the process of being considered for seismic retrofits.
- Most buildings have diesel-powered generators, and few buildings have inverters.

Stormwater & Power Systems:

- Collins House Admissions Building has a non-traditional above-ground bioswale (concrete planters with absorbent material) associated with the adjoining parking lot.
- Large solar array on campus coupled with a commitment to securing a diversity of energy sources (i.e., gas, electricity, solar) is helping ensure continuity of power in the event of power losses from the surrounding grid in Los Angeles (i.e., “campus energy self-sufficiency”). On-campus solar array is currently providing 12% of the campus’s electricity needs.

- Solar panels have been incorporated into construction plans for new off-campus student housing in the future to help create additional energy resiliency.

Open Space, Trees, & Natural Resources:

- Urban and Environmental Policy program offers applied research focused on urban environmental issues via knowledgeable faculty that has helped to build passion amongst the student population for sustainability, resilience, and equity on campus (ex. FEAST Garden).
- Campus has mature olive tree groves, a beautiful quad with older trees, and multiple pollinator gardens
- Occidental College is well known for its beautiful campus, due in large part to the well-maintained and abundant green spaces, landscaping, and trails (i.e., trail up Fiji Hill) that provide opportunities to reduce stress, improve air quality, reduce localized flooding, and help cool ambient air temperatures on campus. These benefits, provided by green spaces on campus, help to improve mental health and lived experience for students, faculty, and staff, as well as families of students and other visitors.
- Faculty are very involved as sustainability team partners alongside students working on projects such as developing micro-forests, landscaping plans, and improving biodiversity.



Credit: Occidental College

Recommendations to Improve Resilience

A common theme among workshop participants was the need to continue community-based planning efforts focused on developing adaptive measures to reduce Occidental College's vulnerability to extreme weather, climate change, and other common concerns raised. The need to plan and collaborate with internal and external partners emerged as a theme. Some participants also reflected a desire to care for the community beyond campus in light of climate challenges.

In direct response, the CRB Workshop participants developed the following actions and identified them as either priority or as additional actions. Actions identified during the workshop have been organized below into several themes (i.e., Communications and Planning, External Collaborations, Infrastructure and Campus Improvements) with priority actions followed by additional actions.

Recommendations stem from live brainstorming and discussion throughout the workshop and reflect the knowledge of participants about existing campus conditions and initiatives. This list did not assess the feasibility of potential recommendations. A factsheet about Occidental College that was provided in advance of the workshop is provided in Appendix A for informational purposes.

The table below was generated during the workshop and shows the prioritization of potential actions by participants. Following the workshop, facilitators organized the recommendations by category and priority level. The text below captures participant suggestions for recommendations.

	Top Priority A	Top Priority B	Top Priority C	Top Priority D
Group 1	Expansion and maximizing MOUs with academic insitutions/organizations/departments (city/state/county) across the larger LA area. Hand in hand with Student Empowerment - self-reliance/preparedness	Electrical Indepence: Advance discussions for back-up battery on and across campus	Explore how to provide continuity of gas supply to maintain food for entire campus for extended periods.	Exploration of the potential of establishing a inter-campus shuttle system to increase accessibility and respoand to needs of campus during events
Group 2	Clarify process and communications around short and long term emergency procedures	Aligning campus sustainability plan with campus strategic plan	Updating buildings and grounds to current standards, best practices and requirements for earthquake tolerance, fire resistance, water and energy use	Continuing to find common ground with students and faculty and administration on campus
Group 3	Develop a decision making rubric for prioritizing climate activities - what resources can we assign? how do we create/expand capacity?	Develop a strategy to engage the campus on identifying networks to support Oxy in a major climate event that can be included in existing surveys (budgeting process for example)	Exploring post climate event communications/education plan. Develop an ERT dashboard	Partnering with local alumni to support students during emergencies

Three areas of action were identified based on participant responses, of which a summary of suggestions is provided:

Summary: Communications and Planning

- Create an ERT Dashboard
- Align Strategic Plan with Resilience and Sustainability Goals
- Ensure adequate staffing to execute long-term plans as well as emergency plans
- Clarify emergency communications procedures
- Bring student leaders into the discussion
- Foster a culture of trust between students and leadership
- Address trauma, anxiety, and mental well-being

Summary: Infrastructure and Campus Improvements

- Enhance electrical independence with back-up batteries
- Landscape with native plants that are drought-tolerant and fire-resistant; control invasive species
- Reduce deferred maintenance on campus facilities
- Assess and prepare for a lack of potable water on campus
- Assess opportunities for stormwater management and water catchment

Summary: External Collaboration

- Build MOUs with external organizations

- Create a list of Occidental Alumni in the area who are available to support the community during a crisis
- Collaborate with others in building plans and strengthening relationships

Communications and Planning: Priority Actions

- Work to further clarify Occidental College’s processes for communications, including clarity on what should be communicated, and which audiences need to be reached and when (parents, alumni, on-campus community, adjoining neighborhoods, etc.). Ensure communication processes consider both immediate and longer-term emergency procedures and information needs.
- Continue to work towards finding common ground between students, faculty, and the administration on key issues such as sustainability and resilience.
- Continue to explore communication and educational effectiveness during debrief led by the Emergency Response Team and use information to inform a dashboard that is easily accessible by the entire campus community.
- Develop a decision-making rubric that can help prioritize capacity, resources, and funding allocations more effectively and efficiently both pre- and post-crises. This process will also help to clarify capacity shortfalls and needs for long range strategic plans that prioritize actions over time (i.e., “climate action plan(s)”).
- Look to bring student government leaders into discussions about disaster response with the Emergency Response Team. Areas of strength could include student leaders being instrumental in keeping track of and reuniting students displaced by disasters.

- Identify ways to help enhance students' ability to be better prepared (i.e., "self-sufficient") for events, along with greater awareness via consistent communications via existing materials (i.e., newsletters, flipbooks, etc.) and approaches (i.e., Emergency Response Team attending campus events, Donuts for Downloads, Oxy Alerts, etc.).
- Review existing campus strategic plan and align with existing and new strategic goals, including those that will enable greater sustainability and resilience on campus.
- Assess the ongoing shortfalls due to current staffing level and work to address issues to ensure the strategic plan for Occidental College can be realized.

Communications and Planning: Additional Actions

- Update Emergency Operations Plan to better clarify locations where the campus community should go in the case of emergencies. Ensure those locations are well-equipped to serve people's needs and can maintain power despite outages in the larger power grid.
- Learn from recent communication missteps from administration to students regarding extensive clean-up conducted on campus due to the recent wildfires. Work to increase awareness amongst student body of what is needed for pre- and post-event response to further help foster a culture of trust between administration, faculty, staff, and students.
- Continue to utilize the campus siren and loudspeaker system to help enhance awareness of issues on campus that require immediate and full attention.
- Maintain and enhance Oxy Alert due to the system's effectiveness at reaching a wide range of community members across a variety of communication platforms, from email to text and social media.
- Assess and provide support for students' needs associated with concerns and anxiety related to their campus experience, given the recent wildfires and potential impacts of earthquakes and heat waves. Ensure that leadership acknowledges these concerns amongst the student body and their respective families who have placed their young adults in the care of Occidental College during the academic year.
- Explore the potential for a volunteer emergency response squad to help support the Campus Safety and the Emergency Response Team. "Squad" could provide opportunities for students to have a more direct role in supporting response activities once properly trained.

External Collaboration: Priority Actions

- Look to create and maintain a vetted list of Occidental College Alumni that live near campus and are willing to house and support students if circumstances require the evacuation of students (in particular, international students).
- Build, leverage, and strengthen connections and relationships with municipal, regional, and national institutions, organizations, coalitions, and networks that can help support Occidental College when responding and recovering from disasters.
- Continue to collaborate with local police, fire, and Red Cross personnel with the goal of developing plans and commitment of resources in advance of emergencies.
- Look to expand and maximize the existing and future memorandums of understanding with other academic institutions, organizations, and departments or agencies (city, regional, county, state) across the greater Los Angeles area. Focus on building from the suite of complementary and supportive partnerships already in place.

External Collaboration: Additional Actions

- Celebrate the Occidental College community projects that increase sustainability from green stormwater infrastructure retrofits to renovations of buildings to installation of renewable energy interventions.
- Work with Second Nature to open a dialogue around emergency response approaches and needs with other academic institutions in the greater Los Angeles area.
- Look to strengthen relationships with local and city transportation organizations and authorities in hopes of securing help in the event of evacuations from campus.
- Review and update the campus evacuation plan to include new understanding and opportunities to improve the health and safety of students, faculty, and staff. This could include establishing mutual aid agreements with other small academic institutions to receive and house displaced students for longer periods (ex. Tulane University students after Hurricane Katrina).

Infrastructure and Campus Improvements: Priority Actions

- Develop cost estimates and installation plans on how to maintain continuity of gas supply to ensure the campus can cook and provide food for the entire community for extended periods in the event of a major disaster.
- Enhance electrical independence by securing backup batteries on campus to ensure availability of locally controlled electricity during emergencies. Battery purchases and installation have upfront costs but will provide significant returns on investment over time.

- Explore the potential for establishing an intra-campus shuttle system to increase accessibility and respond to campus needs during emergencies.
- Control invasive plant species and restore natural areas such as Fiji Hill with native plant species that are drought-tolerant and fire-resistant. Refer to the U.S. Green Building Council’s landscaping design guidance materials to help inform restoration efforts.
- Adopt a LEED standard for all new buildings and renovation projects on campus.
- Look to increase the self-sustainability of campus by improving the water catchment system, elevating the number and distribution of battery storage, and installing a greater number of solar panels.

Infrastructure and Campus Improvement: Additional Actions

- Increase awareness of the benefits of Emmons Wellness Center and work towards making the necessary renovations to ensure this facility can provide critical services consistently during major events (i.e., facility not ADA compliant).
- Continue to support the Facilities team’s focus on reducing the amount of deferred maintenance and much-needed retrofits and renovations on campus (i.e., air conditioning in dorms).
- Launch stormwater runoff assessment and management study to identify areas impacted by routine to extreme precipitation events on campus to determine which areas to prioritize with various control measures, including installation of green stormwater infrastructures such as bioswales and raingardens.
- Conduct an analysis to see if the existing solar array on Campus can be connected to backup batteries for storage and use during emergencies.
- Conduct an assessment of potable water quantity and distribution across campus in anticipation of various hazard scenarios that would require water use (“Is what we have already enough?”).
- Ensure that the Emergency Response Team and any associated emergency and strategic plans for the campus fully embrace the fire risk presented by Fiji Hill area, including monitoring for potential fires, limiting fuel loads, replacing invasive plant species with fire-resistant native plant species, and disallowing planting near buildings in proximity to Fiji Hill.

Conclusions and Next Steps

The information captured by The Nature Conservancy and Second Nature facilitation team within this Community Resilience Building Summary of Findings and Resilience Assessment reflects some of the concerns and perceptions surrounding climate risk held by the campus community, as well as strengths that participants believe are already serving to improve climate resilience at Occidental College. Vulnerabilities and or potential areas of improvement that the campus could focus on, as well as ideas and some priority actions, were also recorded.

The recommendations collected within this Summary of Findings and Resilience Assessment may be considered within the Climate Action and Sustainability plan currently under development. Depending on the recommendation, additional analysis may be done to evaluate feasibility, and additional feedback may be collected to advise on prioritization and possible implementation of identified items.

One positive finding of this assessment is that several of the items discussed could be addressed through streamlined procedures or improved communications. For instance, greater transparency and all campus updates appear to be desired. Further, the Emergency Response Team is already working on several of the goals brought up by participants. Other action items, like a proper alignment of staffing and resources, as well as investments in infrastructure may take more time and resources to address. Initial feasibility studies are recommended to determine resource needs and availability so the campus can invest wisely on long term resilience.



Credit: Occidental College



Credit: Occidental College



Credit: Occidental College

CRB Workshop Participants: Department/Organization

Occidental College – Office of President
 Occidental College – Executive Assistant to the VP and COO & the General Counsel
 Occidental College – Campus Safety
 Occidental College – Facilities Management Department
 Occidental College – Hospitality & Auxiliary Services
 Occidental College – Office of Sustainability
 Occidental College – Office of Communications
 Occidental College – Information Technology Services Department
 Occidental College – Emmons Wellness Center
 Occidental College – Department of Residential Education and Housing Services
 Occidental College – Physics Department
 Occidental College – Economics Department
 Occidental College – Associated Students of Occidental College (Student)
 Occidental College – Disabled Student Union (Student)
 Occidental College – FEAST Garden Member (Student)

Occidental College CRB Core Team

Alison Linder – Office of Sustainability
 Isa Merel – Office of Sustainability
 David Caldwell – Facilities Management Department
 Erik Russell – Hospitality and Auxiliary Services
 Dan Snowden-Ift – Physics Department
 Rachael Warecki – Office of Communications
 Devon Sakamoto – Emmons Wellness Center
 Isaiah Thomas – Residential Education, Housing Services, and Student Conduct
 Aiden Thatcher – Associated Students of Occidental College

Occidental College CRB Workshop Facilitation Team

The Nature Conservancy - Adam Whelchel, Ph.D. (Lead Facilitator/CRB Program Manager)

Second Nature – Steve Muzzy (Small Group Facilitator)
Second Nature – Cami Sockow (Small Group Facilitator)
The Nature Conservancy – Arcadia Davies (Scribe)
Second Nature – David Vasquez (Scribe)
The Nature Conservancy – Anjali Khanna (Scribe)
The Nature Conservancy – Ratan Koneru

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Appendix A

Occidental College Campus Fact Sheet*

*Fact Sheet was compiled by the Office of Sustainability at Occidental College and provided to Community Resilience Building Workshop participants in advance of the Workshop.

Resources:

- Landscape Master Plan (adopted 2016)
- Emergency Operations Plan
- PDF Map of Campus
- LA County Climate Vulnerability ArcGIS Map - toggle on/off different vulnerabilities • LA Campus Resilience Challenge

CAMPUS and BUILDINGS

Age: 111 years old - opened in Eagle Rock in 1914

Total Size: 120 acres

Total acreage undeveloped: 40 (Fiji Hill)

Total Building Square Footage: 1,490,202 square feet

Number of Buildings: 64

Age of Oldest Building: 111 years (1914 construction date) - Fowler Hall, Johnson Hall, & Swan Hall

Median Age of Building: 80 years (1945 construction date)

Largest Buildings:¹

Building Name	Construction Date (Renovated)	Square Feet
Mary Norton Clapp Library	1924 (1970)	104,177
Berkus Hall (dorms + offices)	2008	100,662
Johnson Student Center (JSC)	1928 (1998)	71,589

Residential Spaces

Oxy has an on-campus living requirement of three years, with the option to live on campus all four years. Berkus Residence Hall is the largest residence hall on campus, at about 100,000 sq ft. It was retrofitted in 2008 and includes

¹ Building list in Appendix 1

classroom spaces, administrative offices, a fitness center, and an underground parking garage that is 94,000 sq ft. The remaining 14 residence halls range in square footage from 40,000 sq ft to 5,000 sq ft, with an average of about 24,000 sq ft. Eight of these buildings have central air conditioning. A majority of these halls were built in the 1950s and 1960s, with renovations made in the late 1990s and early 2000s.

Off-Campus Rental Spaces

Occidental provides rent-stabilized housing for faculty and staff members, aiming to support recruitment and retention, and to assist with the high living cost in Los Angeles. Homes are available with a maximum lease term of six years, with priority given to new hires. Occidental has a total of 53 rental properties totaling to a sum of 50,433 sq ft.

Student Affairs Spaces

The Johnson Student Center (JSC) is one of the most widely utilized buildings on campus. This 71,000 sq ft space contains one of two campus dining halls, the student-run coffee shop, the student government space, the campus bookstore, and the post office. The downstairs interior of the building was renovated in 2013 to adjust to more energy-efficient utilities such as LED lighting. Across the academic quad from the JSC is the 104,000 sq ft Mary Norton Clapp Library and Academic Commons, built in 1924 and renovated in 1970. This building houses a handful of study rooms and classroom spaces, the Critical Making Studio, the Writing Center, the Mac Lab, and the Disability Services offices.

Academic Spaces

Mirrors of each other overlooking the academic quad are two of the largest academic buildings on campus: Johnson Hall and Fowler Hall. The 40,000 sq ft space of Johnson was renovated in 2014 to update classroom spaces as well as construct the Choi Auditorium and McKinnon Center for Global Affairs. Fowler Hall contains the primary offices and classrooms for the Economics major and a handful of lecture spaces for various other majors. These two buildings were the inaugural buildings of the campus, constructed in 1914. Also originally built with the original campus in 1914, Swan Hall, another academic space with classrooms and offices, was renovated in 2012, becoming Occidental College's first LEED-certified building.

LOCATION / ENVIRONMENT

Geography: Occidental College is located in the City of Los Angeles, CA, in a neighborhood called Eagle Rock. It is situated between Glendale and Pasadena. It is close to the 210 and 134 freeways and bordered by the Highland Park neighborhood.

Climate: Mediterranean; “characterized by hot, dry summers and cold, rainy winters. Rainfall is not abundant. A distinctive feature of this climate are the extremely dry summers, during which there is practically no rainfall.”²

- Temperature averages:
 - January average low: 48 degrees
 - August average high: 77 degrees

10-year temperature averages for Los Angeles, 2010 to 2019³

High °F	Low °F	
70	49	January
69	50	February
70	54	March
74	56	April
74	58	May
78	62	June
83	65	July
84	66	August

² <https://humanidades.com/en/mediterranean-climate/>

³ <https://www.currentresults.com/Weather/California/Places/los-angeles-temperatures-by-month-average.php>

84	65	September
81	61	October
74	54	November
68	49	December
76	57	Year

Days per month in Los Angeles of at least 70, 80 or 90 °F⁴

	70 °F	80 °F	90 °F
January	13	3	0
February	11	3	0
March	16	4	1
April	19	6	1
May	25	6	1
June	29	10	1
July	31	22	3
August	31	26	6
September	30	21	6

⁴ <https://www.currentresults.com/Weather/California/Places/los-angeles-temperatures-by-month-average.php>

October	28	13	4
November	20	6	1
December	11	2	0
Year	264	123	26

- Rainfall:
 - Majority of precipitation falling between December and March
 - ○ Avg summer precipitation 0mm
 - ○ February typically wettest month at around 67-95mm

Total Seasonal Rainfall (Precipitation) vs. Historical Seasonal Average in Burbank, CA⁵

Season (July 1-June 30)	Total Inches of Rainfall	Inches Above/Below (+/-) Overall Season Average*
2022-2023	26.99	+11.92
2021-2022	9.96	-5.11
2020-2021	4.85	-10.22
2019-2020	14.51	-0.56

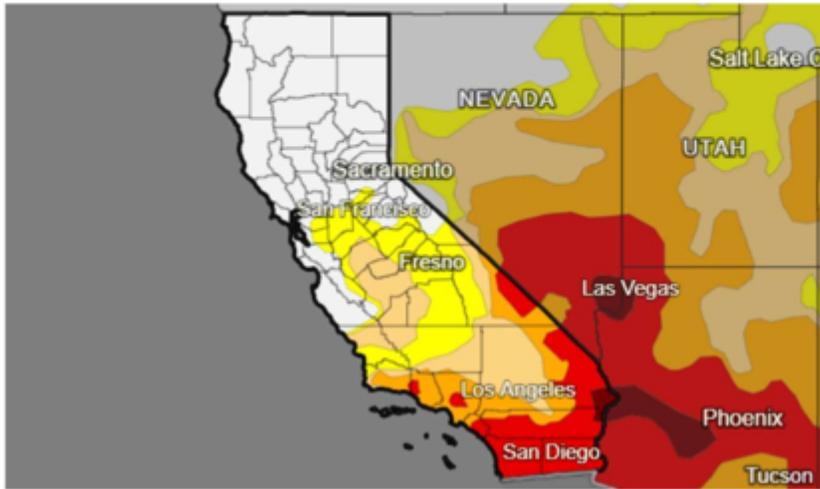
⁵ <https://www.laalmanac.com/weather/we11a.php>

2018-2019	18.92	+3.85
2017-2018	6.39	-8.68
2016-2017	13.83	-1.24
2015-2016	9.00	-6.07
2014-2015	7.65	-7.42

Drought Conditions:

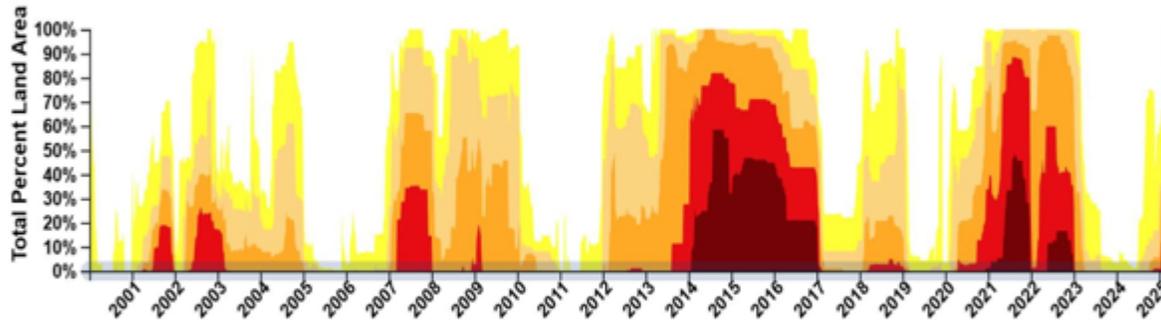
U.S. Drought Monitor

March 04, 2025



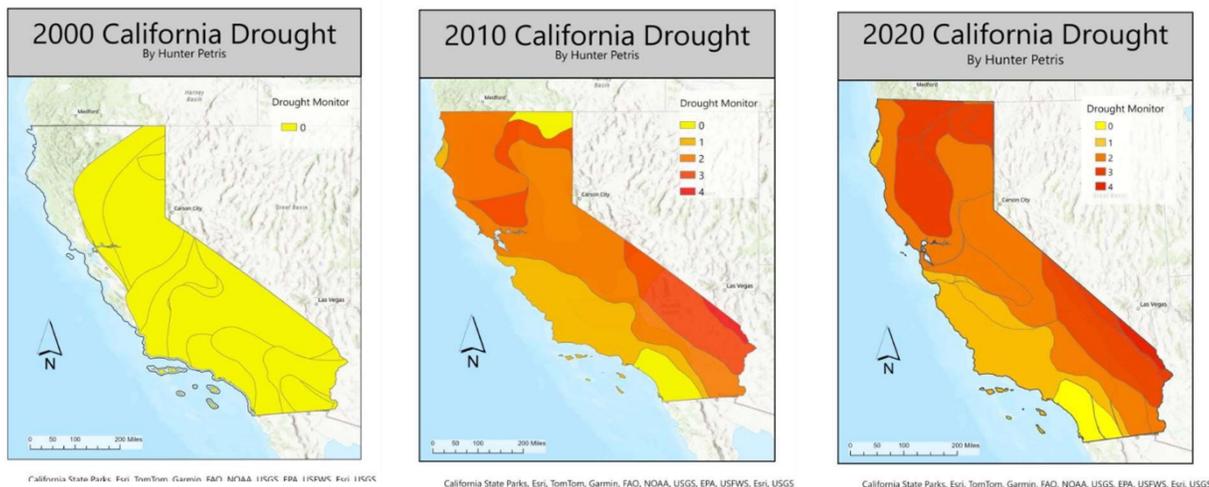
USDM values for California

D0	Abnormally Dry	16.6%
D1	Moderate Drought	16.8%
D2	Severe Drought	10.1%
D3	Extreme Drought	14.0%
D4	Exceptional Drought	0.73%
Total Area in Drought		41.63%



Drought.gov

[Analysis of California Droughts Over the Past 20 Years](#)



Additional Resource: [California Water Watch](#) (shows to-date precipitation % of average, reservoir levels, etc)

LA County Excessive Heat Warnings or Heat Advisories 2024:

- [June 21, 2024](#)
- [September 3, 2024](#)

Oxy Weather Station “Heat Illness Prevention Program” Alerts 2024: 36

Wildfires:

- In 2024, three of 20 California wildfires over 10,000 acres were in LA County.⁶
 - 0 Bridge Fire (56,000 acres), San Clemente Island Fire (13,000 acres), and Post Fire (15,500 acres).
- In 2024, the Bridge Fire in Angeles National Forest was the third-largest wildfire in California.
- In the wildfires of January 2025, including the Palisades and Eaton Fires, Occidental College raised funds through the Employee Emergency Relief Fund. Thirty-five (35) employees were assisted by the ERF, and HR recorded that at least 127 employees were at least temporarily evacuated, either by warning or order.

⁶ https://en.wikipedia.org/wiki/2024_California_wildfires

Water Runoff Map from Landscape Master Plan:



Figure 3.1 –Campus Watersheds (VAI)



Figure 3.2 – Total amount of runoff available for capture, storage, treatment and infiltration, campus wide (2015, VAI)

POPULATIONS (24-25 academic year snapshot)

Number of Full-Time Students: 1,991

Women: 1,181 (59.3)

Men: 810 (40.7%)

International Students: 4.9% (98)

First Generation Students: 15% (299)

Receiving Financial Aid: 80% (1,593)

Pell Grant Recipients: 19.7% (392)

Students Living On Campus: 78% (1,552)

Students Living Off Campus: (presumably) 22% (438)

Number of Non-Instructional Staff: ~503

Number of Temporary or Casual Staff: ~506

Number of Faculty: 203

Faculty/Staff Living in Campus Rental Properties: ~40

Emergency Response Team (ERT)

The Emergency Response Team (ERT) is responsible for planning and directing disaster response and crisis management activities, such as:

- Providing disaster preparedness training
- Preparing emergency plans and procedures for natural disasters and other crises
- Responding to emergencies, with a focus on community safety and continuity of College operations, Team members represent a number of College offices and departments, including the Dean of Students/Student Affairs, Facilities Management, Campus Safety, Business Affairs, and the Office of Marketing and Communications. The ERT also works with the Campus Safety Advisory Committee (CSAC) to maintain a safe environment for every member of the campus community.

Members:

Isaiah Thomas - Student Conduct

Vivian Garay-Santiago - VP of Student Affairs

David Caldwell - Director of Facilities

James Andersen - Risk Manager

James Uhrich - VP of ITS

Rachael Warecki - Assistant VP of Marketing and Communications

Rick Tanskley - Director of Campus Safety

Joshua Fischler - Environmental Health and Safety Manager

Devon Sakamoto - Assistant Dean of Students for Emmons Wellness Center

References:

<https://www.oxy.edu/about-oxy/college-leadership/presidents-office/occidental-college-fact-sheet>



www.CommunityResilienceBuilding.org

www.oxy.edu/sustainability