NORTH ORANGE COUNTY COMMUNITY COLLEGE DISTRICT

DLRGROUP

North Orange County Community College District

Sustainability Action Plan

MAY 22, 2024

MESSAGE FROM LEADERSHIP

As the Chancellor of the North Orange County Community College District (NOCCCD), I am honored to introduce our Sustainability Action Plan, a comprehensive roadmap that reflects our unwavering commitment to environmental stewardship, social responsibility, and economic viability. In an era where the consequences of climate change are becoming increasingly evident, it is imperative for educational institutions like ours to lead by example and embrace sustainable practices that safeguard our planet for present and future generations. Our Sustainability Action Plan is a testament to our dedication to creating a more sustainable and resilient community, one that fosters a harmonious relationship between human activities and the natural environment.

This plan is more than just a set of guidelines; it is a living document that embodies our collective vision for a greener, more equitable, and more prosperous future. It is a blueprint for transformative action, designed to inspire and empower our students, faculty, staff, and broader community to embrace sustainability as a core value and integrate it into every aspect of our operations and curriculum. Through this plan, we aim to cultivate a culture of environmental consciousness, where sustainable practices are woven into the fabric of our daily lives. From reducing our carbon footprint and promoting energy efficiency to implementing sustainable waste management strategies and fostering biodiversity on our campuses, we are committed to taking tangible steps towards a more sustainable future. Moreover, we recognize that sustainability is not merely an environmental issue but also a social and economic imperative. Our plan addresses the multifaceted nature of sustainability, promoting initiatives that enhance social equity, foster economic resilience, and empower our diverse student body to become agents of positive change.

Ultimately, our Sustainability Action Plan is a testament to our belief that education plays a pivotal role in shaping a more sustainable world. By equipping our students with the knowledge, skills, and values necessary to address the complex challenges of our time, we are nurturing a generation of leaders who will drive positive change and create a better tomorrow. As we embark on this transformative journey, I invite all members of our community to join us in embracing sustainability as a shared responsibility and a catalyst for innovation. Together, we can build a legacy of environmental stewardship and economic prosperity, ensuring that NOCCCD remains a beacon of hope for a sustainable future.

Sincerely,

Byron D. Clift Breland, Ph.D.
Chancellor
North Orange County Community College District

CALIFORNIA COMMUNITY COLLEGES SYSTEM-WIDE LAND ACKNOWLEDGMENT STATEMENT

California Community Colleges honors and acknowledges that our 116 campuses throughout the state of California are located in the unceded territories of the 109 federally recognized tribes and the dozens of tribes throughout the state who are seeking recognition. We are committed to supporting the ongoing relationships between these tribes, their ancestral territories and the resilience, strength and sovereignty that continues to be demonstrated by California's first peoples. We affirm our intentions for ongoing relationships with American Indian Tribal Nations and communities whose ancestral lands we occupy and students we educate. A land acknowledgment is a critical step towards working with Native communities to secure meaningful partnership and inclusion in the stewardship and protection of their cultural resources and homelands. Our institutions were founded upon exclusions and erasures of Indigenous peoples. We honor and are grateful for the land we occupy and recognize the ongoing damage of settler colonialism.

We commit to pursuing continuous collaborations with the Tribal Nations of California. We strive to strengthen our awareness of historical and contemporary issues in California to reckon with our institutional legacy and its impact on the people, lands, waters of this place, which are, and always will be, inextricable.

NOCCCD LAND & LABOR ACKNOWLEDGMENT: A CALL TO ACTION

NOCCCD campus sites, and the lands of North Orange County that we serve, are located on the ancestral lands shared by the Gabrielino-Tongva Nation and the Juaneño Band of Mission Indians/Acjachemen Nation, who have been the traditional caretakers since time immemorial. Tongva and Acjachemen peoples maintain a strong presence in North Orange County and throughout Southern California, protecting their homelands, knowledge systems, and cultures for the next seven generations. We acknowledge the ingenuity, survival, resilience, and strength of their descendants and relatives––past, present, and emerging. We also acknowledge the labor of those who work on and care for these lands, both in the past and today, and all those who act in solidarity with Indigenous struggles.

This land acknowledgment was developed by the Native America Faculty and Staff Alliance and the Fullerton College Ethnic Studies Department and we honor their work on our behalf.

ACKNOWLEDGMENTS

NOCCCD EXECUTIVE TEAM

DISTRICT

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- **Richard Williams,** *District Director, Facilities Plan/Cons*
- **Maria Corazon Baldovino,** *Manager, District Facilities Plan, Maint & Co*

FULLERTON COLLEGE

- **Tyler Deacy,** *Director, Sustainability*
- **Henry Hua,** *Vice President, Administrative Services*
- **Larry Lara,** *Director of Physical Plant and Facilities*

CYPRESS COLLEGE

- **Stephen Schoonmaker,** *Interim Vice President, Administrative Services*
- **Philip Fleming,** *Director, Physical Plant and Facilities*

NOCE

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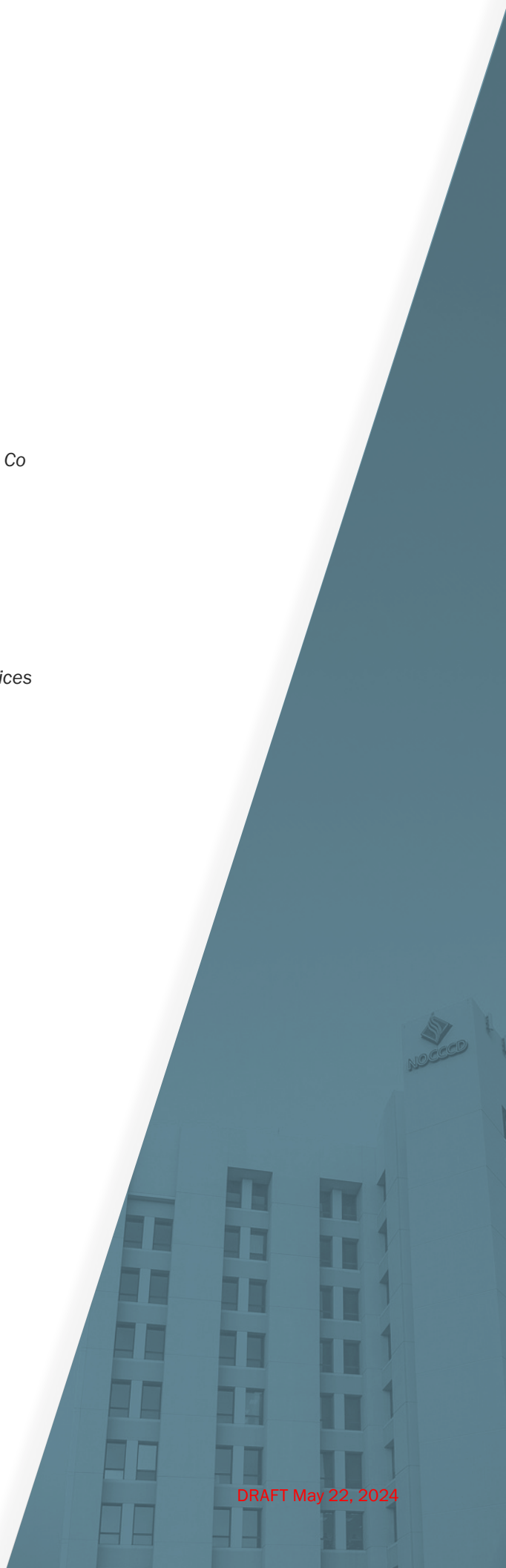

BUILDING A BETTER FUTURE TOGETHER.

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EXECUTIVE SUMMARY

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NOCCCD'S VISION

AN ACTIONABLE, CLEAR ROADMAP TOWARDS A SUSTAINABLE AND RESILIENT FUTURE FOR NOCCCD.

North Orange County Community College District (referred to as NOCCCD and/or the District throughout this plan) has never before undertaken the development of sustainability at this scale. The following Sustainability Action Plan, Integrated Energy Management Dashboard, and Total Cost of Ownership Model, informed by the campus community, will guide future campus decision-making around utilities and energy infrastructure, capital planning, and climate resilience. Flexibility within the plan is emphasized to allow for adaptability to external factors as the campus develops while maintaining integrity of the proposed vision and goals.

> *By combining a traditional sustainability plan with a data rich Integrated Energy Management Dashboard, NOCCCD can make more informed decisions. "To have this kind of data that shows us the combination of condition of facilities and energy use will enhance our abilities to make decisions."*
> *-Stephen Schoonmaker*

PURPOSE OF THIS PLAN

The Sustainability Action Plan (SAP) is a strategic planning document created for North Orange County Community College District and its three campuses –Fullerton College, Cypress College, and North Orange Continuing Education. This plan was created with a full engagement of constituents represented by students, faculty, and staff. The District hired DLR Group in May 2023 to support the development of this plan and facilitate the eight-month process with a diverse set of stakeholders.

The purpose of this Plan is to set the guiding principles for, and set a comprehensive approach to, the District's current sustainability vision to include priorities for wellness, mental health, and resilience of the campus community. This is a holistic guide for implementing sustainability on the campus. Developed in partnership with and concurrent to facilities planning efforts, the plan will support continued awareness, development, and improvement to ensure that the District's educational mission is supported by a healthy and resilient environment.

Building upon the California Community Colleges Chancellor's Office (CCCCO) Climate Action and Sustainability Framework as well as the District's Administrative Procedures and Policies, this document distills a unique set of complex sustainability topics into clear and achievable objectives, developed in direct response to engagement with the district stakeholders.

DOCUMENT ORGANIZATION

This document is organized into chapters that align with the process and scope of the plan.

CHAPTER 1

Sets the context for the North Orange Community College District and the Sustainability Action Plan (SAP).

CHAPTER 2

Reviews the engagement processes undertaken to inform the creation of the SAP. This section describes the various engagement strategies, who participated, and how the engagement is used to inform the SAP.

CHAPTER 3

Includes the Sustainability Action Plan with sub-sections addressing each impact area. Impact areas are broken down into objectives, actions, metrics and measures to guide North Orange Community College District toward their sustainability goals.

CHAPTER 4

Includes a high level overview of the Total Cost of Ownership (TCO) model. The final deliverable is an interactive Integrated Energy Management Dashboard which is provided as an exhibit in the TCO section.

CHAPTER 5

Discusses the commitment that the district has for implementing this plan.

PLANNING CONTEXT

DISTRICT OVERVIEW: NOCCCD CAMPUSES

The District is one of 73 community college districts within the California Community College system, which encompasses 116 community colleges. Two of the state's premiere colleges and one of the state's most extensive continuing education programs combine to provide the quality educational programming of NOCCCD. Nearly 57,000 students enroll annually, and the three NOCCCD campuses serve an area of over one million diverse people - each pursuing their own, unique ambitions.

Fullerton College

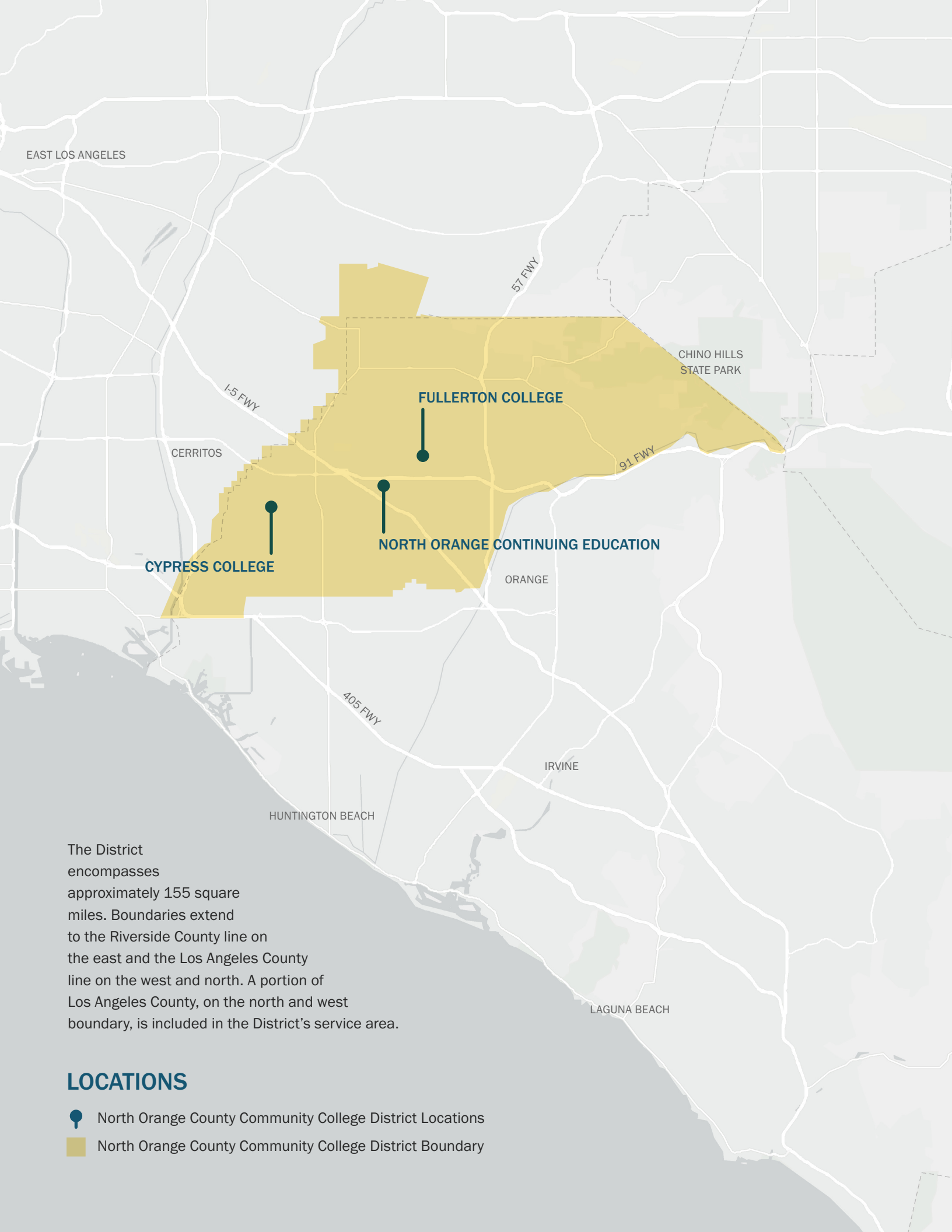
The oldest community college in continuous operation in California, Fullerton College was founded in 1913. The campus is situated on 83-acres and contains 20 academic buildings. More Fullerton College students transfer to the California State University system than from any other community college in California. A two-year campus, Fullerton College enrolls approximately 17,000 students each semester as a Hispanic-serving and Asian American/Pacific Islander-serving Institution.

Cypress College

Established in 1966, Cypress College is a public campus with 17 major buildings on 110 acres. As a two-year campus, the College enrolls approximately 16,000 students each semester and is also designated as a Hispanic-serving and Asian American/Pacific Islander-serving institution, serving the communities of Anaheim, Buena Park, Cypress, Garden Grove, La Palma, Los Alamitos, Seal Beach, and Stanton. A Cypress College education costs state residents $46 per unit, California's lowest tuition.

North Orange Continuing Education

Since 1973, North Orange Continuing Education (NOCE) provides free, non-credit continuing adult education and community service classes at all three of its campus locations, as well as numerous off-campus locations. Locations include the Anaheim Campus – the main operational hub, and Cypress and Wilshire Centers, in addition to over 100+ community-based locations. The Anaheim tower serves both academic and administrative functions.



The District encompasses approximately 155 square miles. Boundaries extend to the Riverside County line on the east and the Los Angeles County line on the west and north. A portion of Los Angeles County, on the north and west boundary, is included in the District's service area.

LOCATIONS

- North Orange County Community College District Locations
- North Orange County Community College District Boundary

NOCCCD 2023 EDUCATIONAL & FACILITIES MASTER PLAN REFRESH

Concurrent to the Sustainability Action Plan, NOCCCD conducted a district-wide 2023 Educational & Facilities Master Plan Refresh (EFMP) with the help of Brailsford & Dunlavey with MRY. This effort focused on updating prior 2020 strategies driven by post-COVID learn/work needs on campus and identified opportunities to improve remote learning and working methods to support the mission. Sustainability goals and actions underpin decisions made about these important investments in the campuses and will help create a thriving future campus environment. The EFMP carries forward a goal for Sustainability, in alignment with this plan. The following table lists the major projects identified in the 2020 EFMP at each respective college. As each project is implemented, design opportunities to advance sustainability goals should be incorporated wherever possible.

Each college develops and tracks campus development strategies independently.

NOCCCD PROJECTS

CAMPUS	RECENTLY COMPLETED	UNDERWAY	CURRENT PLANNED	FUTURE PLANNED*
Fullerton	• New instructional building • Central plant expansion • Network refresh • Infrastructure improvements • Sherbeck Field Enhancements • North Library Historic Courtyard Renovations • Quad Seating and Shading	• Renovation of 300 building • New Maintenance & Operations (M&O) Building, Central Plant Expansion, and Thermal Energy Storage (TES) • New Performing Arts Complex • Accessibility Enhancements • Mass Communications and Security Systems Upgrades • Veterans Resource Center/ Instructional / Student Resources	• New Welcome Center • Demolition of Buildings 1100, 1300, and eventually 2000 • Expanded Parking • New Lockers & Showers & Parking Improvements • Surface Parking Expansion • Integrated Parking	• New STEM Vocational Center • New CDES Lab School building • Pilot projects for campus-wide enhancements • Strength lab renovation • Faculty lounge and health center renovation • Math 600 building renovation • North campus spine • New mobility hubs • Wilshire theater 2100 renovation • Demo & new gym 1200 building
Cypress	• New Science Engineering Math (SEM) Building • New Veterans Resource Center and Student Activities Center Expansion • Pond Refurbishment • Piazza Repairs • Baseball Clubhouse & Field Fencing Replacement	• Network Refresh • Renovation of Fine Arts Building • Mechanical Infrastructure Improvements • Mass Communications & Security Systems Upgrades	• Pool Renovation and Repairs* • Tech Ed III Health Sciences Renovation • Fine Arts Renovation • Softball Field Renovation • Health and Wellness Center Renovation • Central plant upgrades • Humanities Affinity spaces • SEM building 3 demolition	• LLRC exterior garden • Gym II Renovation • Aquatics Center • CTE Programs Facilities • Additional Health Science Facilities • Affordable Student Housing • Hospitality, Restaurant, and Culinary Building • Tech Ed II Renovation • Athletic Field and Track Enhancement • Campus Safety and Emergency Ops Center
NOCE/ District	• Network Refresh • Outdoor Education Garden Enhancements (Wilshire Continuing Education Center Located at Fullerton College)	• Upper Deck Parking Repairs • Signage Enhancements	• Landscape Enhancements • Accessible Entrance Path Enhancements • Boardroom Renovation • Affinity Group Spaces • Outdoor Patio Cover	• New Mixed-Use Building • Utilize Prior Culinary Space • Campus Connection from West Lot • Dining services • Tech Ed II Renovation (Cypress)

**Future Planned Projects created by Brailsford & Dunlavey with MRY*

NATIONAL BENCHMARKS

The state of California is at the forefront of sustainability policy and regulations, with many of its college and university campuses ranked among the most sustainable in the nation. The best practices found at these institutions are showcased on a yearly basis through the national conference of the Association for the Advancement of Sustainability in Higher Education (AASHE) and the California Higher Education Sustainability Conference (CHESC).

These important congregations illustrate the broader nationwide and statewide context and the active role of higher education in sustainability. Within this context, NOCCCD is uniquely positioned to continue leading sustainability best-practices nationally for higher education institutions.

CHANCELLOR'S OFFICE CLIMATE ACTION AND SUSTAINABILITY GOALS

The governor-appointed Board of Governors of the California Community Colleges sets policy and provides guidance on a wide range of state priorities, including how to comply with the state's environmental statutes, such as Executive Order B-18-12 which outlines California's climate policy leadership.

Since 2013, the Board of Governors has issued policy directives to guide energy conservation, climate action and sustainability measures. In 2019, they concluded that climate change is one of the most pressing and critical issues of our time and adopted the Climate Change and Sustainability Policy. More recently, the Board of Governors issued the Climate Action and Sustainability Framework, which provides revised goals and recommendations for community college districts across the state. This comprehensive set of targets, tools, and goals serves as a guiding resource for NOCCCD. It outlines considerations for advancements in campus sustainability efforts by focus area, including Greenhouse Gas (GHG) Emissions Reduction, Green Buildings, Energy, Water, Waste, Purchasing and Procurement, Transportation, and Food Systems.

In the past, enforcement was mostly voluntary but stricter oversight by the Chancellor's Office and possible penalties for blatant noncompliance are projected to be established. Currently, the state has not yet defined the monetary penalty cost for noncompliance, but it is in consideration in fiscal year 2025. Fortunately, NOCCCD is taking the most critical first step and will satisfy all the Chancellor's 2025 objectives by having completed this district-wide planning effort.

TRIPLE BOTTOM LINE SUSTAINABILITY

As the impacts of climate change become more widespread and severe, NOCCCD will adopt decision-making tools (guidelines that help the District make strategic and informed decisions) that can balance environmental sustainability with fiscal and operational feasibility. The principle of triple bottom line sustainability states that people, planet, and profit must be equally considered by an organization and that no significant investment decision can be made without careful consideration of its impacts on each of these essential systems.

1 **PEOPLE/SOCIAL**
Social sustainability means respecting and sustaining cultures, social systems, and human well-being worldwide. Community resilience is built through strong connections, shared values, and the protection of human health and well-being for all—decisions made at NOCCCD impact the local community and neighboring communities. NOCCCD policies, practices, and initiatives play a role in creating a more socially vibrant and just world.

2 **PLANET/ENVIRONMENTAL**
Environmental sustainability encompasses ecological systems and the natural resources required to sustain them. NOCCCD has committed to reducing resource use and encouraging environmental stewardship through its commitment to eliminate greenhouse gas (GHG) emissions by 2035.

3 **PROFIT/ECONOMIC**
Economic sustainability requires decision-making principles that lead us to sustain our financial resources without negatively impacting environmental or social systems. Community colleges, including NOCCCD, play a vital role in supporting economic systems that produce goods and services essential to sustainable development.

EMBEDDING RESILIENCE

The environmental impacts of climate change are already disrupting the lives of NOCCCD students, faculty, and staff. Climate data suggests that Orange County and its surrounding communities are most vulnerable to climate-related hazards including excessive heat waves, increased drought, wildfire, and associated risks like air quality and drinking water contamination. These conditions can pose an even greater threat to the County's populations experiencing unemployment, poverty, housing burden, education attainment, and limited access to healthcare resources, many of whom the District serves (US Climate Vulnerability Index). Embedding resilience requires district decision makers to understand how quickly NOCCCD can return to normal after both climate-related events and sustained climate risks impacting their campus communities. Planning for these risks and understanding how to continue the mission of the District and continuity of operations will allow NOCCCD to adapt and thrive, even under challenging conditions, and support its most vulnerable.

SUSTAINABILITY AT NOCCCD

NOCCCD continues its commitment to building a district that recognizes the environmental, economic, and social benefits of a sustainable future. At the start of this planning effort, NOCCCD had already built a strong foundation of sustainability policies and practices across its campuses.

The NOCCCD Board of Trustees adopted **Board Policy 3580 Sustainability Plan** in May 2021. In addition to recognizing environmental sustainability to be a foundational mission for NOCCCD, the Policy directed the Chancellor, or designee, to take two key actions:

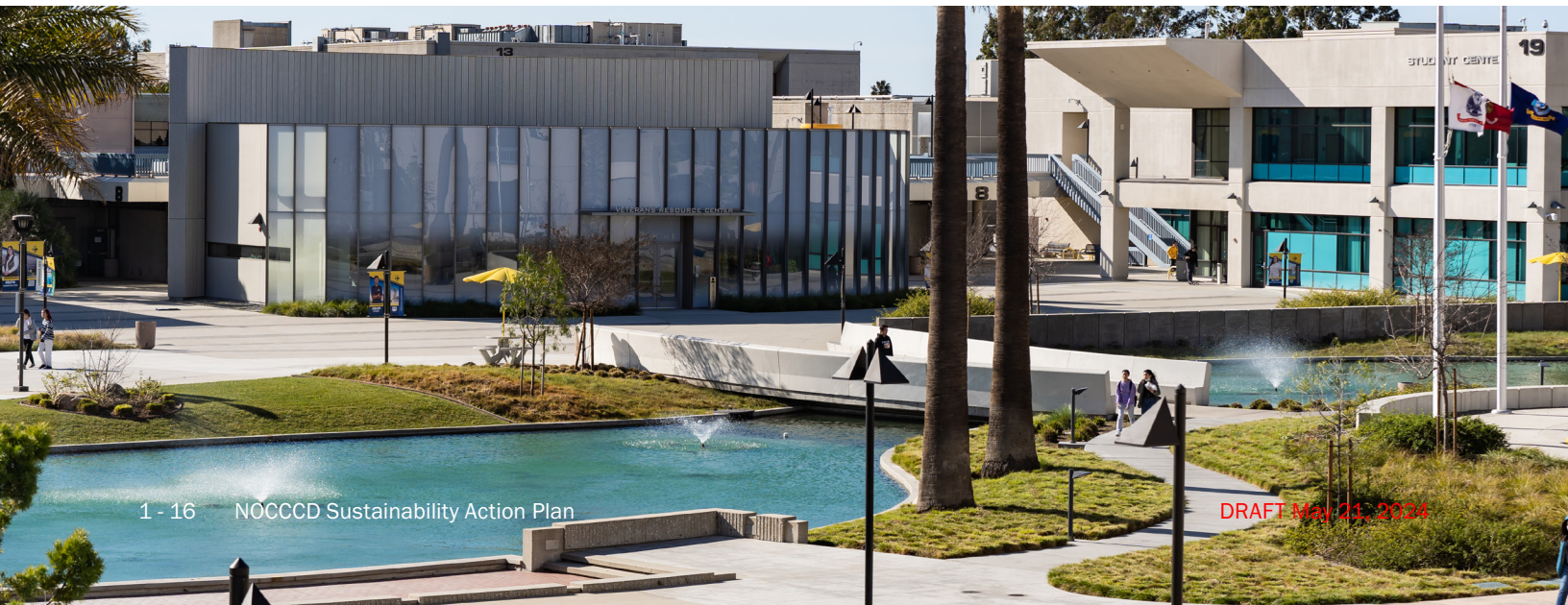
- Establish administrative procedures for sustainable practices of NOCCCD campuses in the areas of academics, student engagement, planning and administration, and operations.
- Continue to evaluate a Sustainability Plan that aims to monitor and achieve ongoing sustainability goals.

The **Administrative Procedure (AP) 3580 Environmental Sustainability** adopted in February 2022 provides district-wide guidelines for implementing environmental sustainability. The AP references the 2019 California Community Colleges Board of Governors Sustainability Policy, the Association for the Advancement of Sustainability in Higher Education Sustainability Tracking, Assessment, and Rating System (STARS), and the United Nations Sustainable Development Goals (UNSDGs). The following NOCCCD Sustainability Action Plan aligns with these well-established frameworks and the goals and objectives they provide. Additional impact areas were also developed specifically for NOCCCD based on input from stakeholder engagement.

One challenge of existing NOCCCD sustainability policies is a clause in the **Statement of Purpose section 1.3** that states: “sustainability priorities are only required when fiscally and operationally feasible.” Without a clear definition of fiscal and operational feasibility, sustainability efforts can be overlooked in favor of fiscal and operational decision-making criteria. This plan presents an opportunity to more clearly define practices and processes for balancing fiscal, operational, and sustainable decision-making.

In some cases, new State of California laws are already impacting the facilities team procurement practices. As less efficient equipment, parts, and materials are phased out and, in some cases, not available for sale in the state, routine maintenance budgets may need to be increased to procure higher-efficiency and sustainable equipment.

In addition to state-wide and district-wide policies, each campus has unique policies, governing structures, and initiatives that support sustainability.



FULLERTON COLLEGE

Of the three campuses, Fullerton College is furthest in the development of sustainability initiatives. It is the only campus to have dedicated on-site staff supporting sustainability culture and aligned campus initiatives, in partnership with the Sustainability Committee and the Associated Student Committee on Environmental Sustainability.

The 2023-2026 Fullerton Campus Sustainability Plan was created by the Director of Sustainability with support from workgroups focused on Operations, Education and Training, Campus and Community Engagement, and Planning and Administration. The Fullerton Plan helped inform the approach on how a district-wide plan could align, guide, and support college specific sustainability action that may go beyond the NOCCCD requirements.

Culturally, promotion of student equity and wellbeing is an important driver for the College, per the 2022 Anti-Racism Research Project, in alignment with the NOCCCD Sustainability Policy & Administrative Procedure 3580. This follows state recommendations to expand the definition of basic needs in higher education, per the 2020 California Homeless Youth Project.

CYPRESS COLLEGE

Recent advocacy for sustainability at Cypress College is led by the Cypress College Wellness Collaborative and Sustainability Committee, hosting events and activities that bring social justice to the forefront of considerations for the climate movement.

Cypress College was honored with a 2019 Excellence in Energy and Sustainability award in January 2019 at the California Community Colleges Board of Governors meeting in Sacramento. The college and the North Orange County Community College District were recognized for Cypress College's chilled water thermal energy storage tank, which reduces cost and increases energy efficiency.

Additional efforts have included a recently launched mobile app, developed by Cypress College students, that focuses on providing the campus community with sustainable and resilient resources to support basic needs.

NOCE (ANAHEIM) / DISTRICT

Advocacy for sustainability at NOCE is led by the Anaheim Campus Sustainability Committee with representation from both NOCE and District staff. Since NOCE and NOCCCD share the Anaheim Campus, collaboration between stakeholders from both entities is crucial for effectively promoting sustainability practices and driving meaningful change throughout the campus. The committee's responsibility includes planning, implementing, coordinating, and monitoring sustainability initiatives and promoting a more environmentally conscious campus environment.

PLANNING PROCESS

This integrated, year-long planning process included leadership advisement, stakeholder engagement, data analysis, and research to develop a set of recommendations guiding future sustainability efforts across the District's three campuses for the next ten years. The plan is an adaptable framework to be tracked and measured over time; it should be periodically revisited to consider shifts in technology, legislation, and CCCCO commitments.

The NOCCCD Executive Committee guided the development, review, and recommendations of this plan. This committee consisted of administrative leadership representatives from the three campuses and the District.

This Sustainability Action Plan (SAP) incorporated three key components:

1. **PLAN RECOMMENDATIONS:** Development of plan impact areas, objectives, goals, and actions through analysis, policy review, and engagement.

2. **INTEGRATED ENERGY MANAGEMENT DASHBOARD:** Creation of an Integrated Energy Management Dashboard (IEMD) to support decarbonization of district facilities. The dashboard outlines targeted energy reduction strategies for NOCCCD's portfolio of buildings based on available utility data.

3. **TOTAL COST OF OWNERSHIP MODEL:** Development of a Total Cost of Ownership (TCO) model to support implementation of facilities-related objectives and actions. Shared via an interactive dashboard, the model considers both capital and operational costs (including human resources), renewal costs, replacement costs and end of useful life costs, allowing the district to plan and budget for future resources and expenditures.

PROJECT INITIATION involved goal setting, policy analysis and review, and coordinating the engagement of many voices across the District to inform the S-CAP development and implementation.

DATA COLLECTION, ANALYSIS, AND RESEARCH included analysis of existing policies, practices, operations, and facilities data to understand current conditions related to sustainability. A wide range of sustainability-related data was shared and analyzed, including:

- Institutional characteristics
- Energy
- Facilities
- Emissions
- Procurement
- Transportation
- Waste Management
- Engagement
- Planning and Administration
- Policy, Academics, and Curriculum

The data collection, analysis and research phase helped identify NOCCCD's strengths and opportunities related to holistic sustainability and the Chancellor's goals.

Integrated Energy Management Dashboard: specific to Integrated Energy Management Dashboard, analysis included quantifying current conditions by conducting site walk-throughs at each campus, conducting facility manager interviews, and assessing building systems to determine baseline operational performance related to energy.

Total Cost of Ownership: included analysis of similarities and differences between each college's approach, focus, and application of total cost of ownership.

VALUES AND VISION involved significant engagement with both District and College stakeholders, including faculty, staff, and students.

Integrated Energy Management Dashboard: engagement included interviews to understand current conditions and regular work sessions to develop the approach, focus, application, and dashboard user stories.

Total Cost of Ownership: engagement included interviews to understand current conditions and regular work sessions to develop the approach, focus, application, and dashboard user stories of Integrated

PRIORITIZATION AND GOALS focused on establishing goals and measurable objectives for each impact area. The District Sustainability Executive Committee reviewed and discussed each of the goals and objectives throughout the phase.

Integrated Energy Management Dashboard: The goals and objectives informed the development of the Integrated Energy Management Dashboard.

Total Cost of Ownership: The goals and objectives informed the development of the TCO model.

ACTION PLAN AND IMPLEMENTATION began to set actions that would address each objective. These actions are primarily district-wide, but baselines are aligned with each College's unique sustainability journey. During this phase, a progress report of the SAP draft was provided to both the College's shared governance committees and the District's board committees.

Integrated Energy Management Dashboard: based on a decision tree that incorporated energy consumption data and facility condition information from the walkthrough, the buildings across the district were bucketed into six different energy improvement categories.

Total Cost of Ownership: a holistic TCO approach was developed using a framework from APPA-Leadership in Education Facilities.

FINAL PLAN consisted of the documentation and approval of the SAP and delivery of the Integrated Energy Management Dashboard and Total Cost of Ownership dashboards.

VERIFICATION AND MONITORING will occur on an annual basis after adopting the SAP and its deliverables by the board, to measure the District's progress in achieving the goals and actions set forth in this plan.

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2

ENGAGEMENT

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ENGAGEMENT: COLLABORATIVE DECISION-MAKING PROCESS

Engagement of campus community members is the foundation for this plan's recommendations; NOCCCD believes that decisions impacting campus community members should be shaped by the priorities, experiences, and values of those engaging with the campuses each day. As part of this planning effort, DLR Group conducted a series of virtual and in-person engagement to ensure that plan recommendations were built on feedback from students, staff, and faculty at the campus and district-wide levels. This approach aligns with NOCCCD's commitment to collaborative decision-making, and the Board of Trustees' emphasis on in-person engagement opportunities during this process.

Progress and updates were shared periodically with the Board of Trustees.

1. A plan update was shared at the Board of Trustees meeting in October 2023. Trustees provided feedback on the overall approach to engagement and encouraged the team to supplement the proposed virtual engagement strategy with opportunities to provide in person feedback, specifically at Fullerton and Cypress.
2. The final draft of the SAP was shared with the Board of Trustees in May 2024. This provided opportunity for trustees to weigh in prior to approval.

Engagement across the District included the following steps:

1. **VALUES Workshop** to define the impact areas addressed through this SAP.
2. **Listening Sessions** with subject matter experts to understand what is working, not working, and visions for the future related to each impact area.
3. **Campus Engagement** to gather more in-depth feedback and experiences from students, staff, and faculty related to each impact area.
4. **Integrated Energy Management Dashboard Weekly Working Sessions** to review campus qualitative and quantitative data and develop an energy management dashboard with facilities representatives from the District. This process and results are discussed in Section 03 of the SAP.

Beyond the engagement conducted throughout this process, strategies for future engagement, communication, and shared decision-making related to sustainability are included in this plan's recommendations (see the Shared Ownership impact area in Section 03 of the SAP).

VALUES

Purpose: Define the impact areas, or key topics, that will be addressed in the sustainability plan.

WHAT IS THE VALUES WORKSHOP?

The VALUES workshop is a collaborative visioning session to establish sustainability goals. VALUES stands for Viewing Architecture Through the Lens of User Experience and Sustainability; it considers how sustainability decisions relate to the way people experience their environment. **The VALUES framework moves beyond rating systems to consider the ecological, social justice, and economic aspects of sustainability and arrive at shared priorities that truly reflect what's important to NOCCCD campus community members.** By engaging with a variety of topics, participants can arrive at a holistic set of shared priorities.

WHO PARTICIPATED?

Staff and faculty from diverse roles and departments across each campus, as well as district staff members, attended the workshop. To build connections and consensus across campuses, each small group within the workshop included both a diversity of roles and representation from each campus and the District. The following table lists the roles invited from each campus and the district.

CAMPUS	PARTICIPANT
District	• District Director, Facilities Planning & Construction • Facilities Manager • IT Technician II • Purchasing: Buyer II • Vice Chancellor, Finance & Facilities
Cypress College	• Interim Vice President, Administrative Services • Capital Projects, Assistant Project Manager • Capital Projects Manager • Counselor CTE • Director, Physical Plant & Facilities • Executive Director, Foundation • Instructional Aid in Resource Center • President • Professor of Linguistics & ESL • Vice President, Instruction • Vice President, Student Services
Fullerton College	• Earth Sciences Instructor • History Instructor • Humanities Instructor • Vice President, Administrative Services • Sustainability Director
NOCE (Anaheim)	• Administrative Assistant II • Associate Dean I, ESL Program • CTE Instructor • Director, Campus Communications • Director, Administrative Services • DSS Program Coordinator • President • Vice President, Student Services

WHAT ACTIVITIES WERE INCLUDED?

Over the course of a two-hour hybrid workshop, attendees participated in the following activities:

01 **Educational topics:** Participants were introduced to the workshop and listened to a series of educational topics related to holistic sustainability as it relates to resource conservation, human health, ecology, community health, and behavior awareness.

02 **Introductions:** In small groups, participants introduced themselves and shared one key challenge or need they hoped to address through the prioritization exercise.

03 **Prioritize VALUES themes and topics:** Facilitated by DLR Group team members, each small group sorted through the VALUES card deck to reach consensus on the top six topics that should be addressed through this SAP. Participants engaged in two-person to three-person discussions within their small group to identify topics that resonated with them, then shared out to others in their small group to reach consensus on their top six topics. Topics could be identified by choosing a single card or a combination of cards that represented a single idea to the group.

04 **Observe, report, measure:** For one topic prioritized by each small group, the group identified what would be observed, reported, and measured by campus community members to determine if that topic is successfully achieved. The outcomes from this activity informed the metrics and measures included in the recommendations section of this plan.

05 **Share out and reflections:** Each small group shared with other participants their prioritized topics and reflections on the activity.

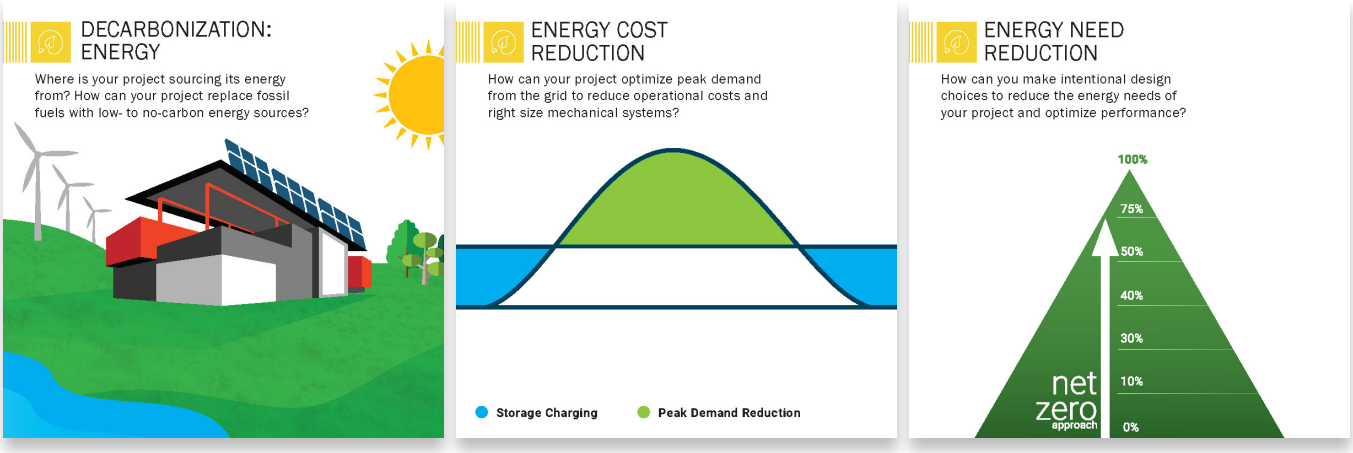
VALUES worksheet from VALUES workshop.

WHAT WERE THE OUTCOMES?

Following the VALUES workshop, DLR Group synthesized top priorities across all four small groups into a shared set of eight impact areas that this plan will address.

IMPACT AREA 1: DECARBONIZATION

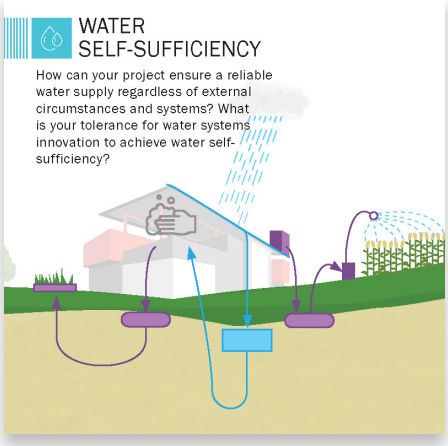
Participants shared that while NOCCCD has already begun progress towards meeting the California Community Colleges Chancellor's Office Goals related to energy and decarbonization, additional strategies are needed. This includes efforts to reduce energy needs, generate renewable energy, and prioritize long-term decision-making.

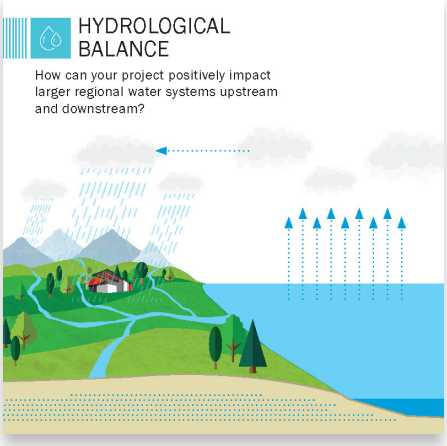


Three working groups at the VALUES Workshop.

IMPACT AREA 2: ECOLOGICAL BALANCE

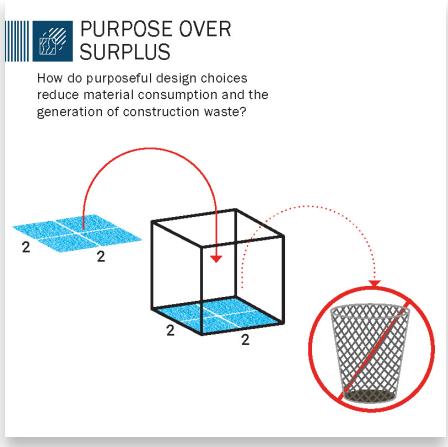
Groups prioritized reducing the district's ecological footprint, including water consumption and impacts on surrounding ecology. They shared that there are already strong efforts to support ecology on some NOCCCD campuses, and education is needed to inform campus community members about these efforts. Hydrological Balance was selected to indicate that the District should consume water in a conscious way that sustains campus users and ecologies while reducing impacts on surrounding watersheds and ecosystems.





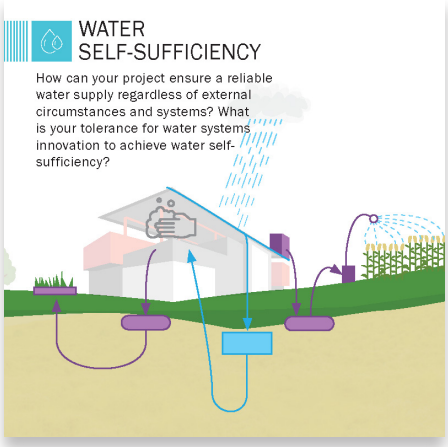
IMPACT AREA 3: DISRUPTING THE CULTURE OF CONSUMPTION

Across groups, participants identified existing obstacles to sustainable waste practices. They mentioned the lack of recycling bins and the limitations on donating or disposing of unneeded items. They also mentioned existing practices, like the Cypress flea market, that encourage more sustainable patterns. Participants want to see the district move towards a culture that promotes conscious consumption of resources, gifting, and sustainable waste practices.



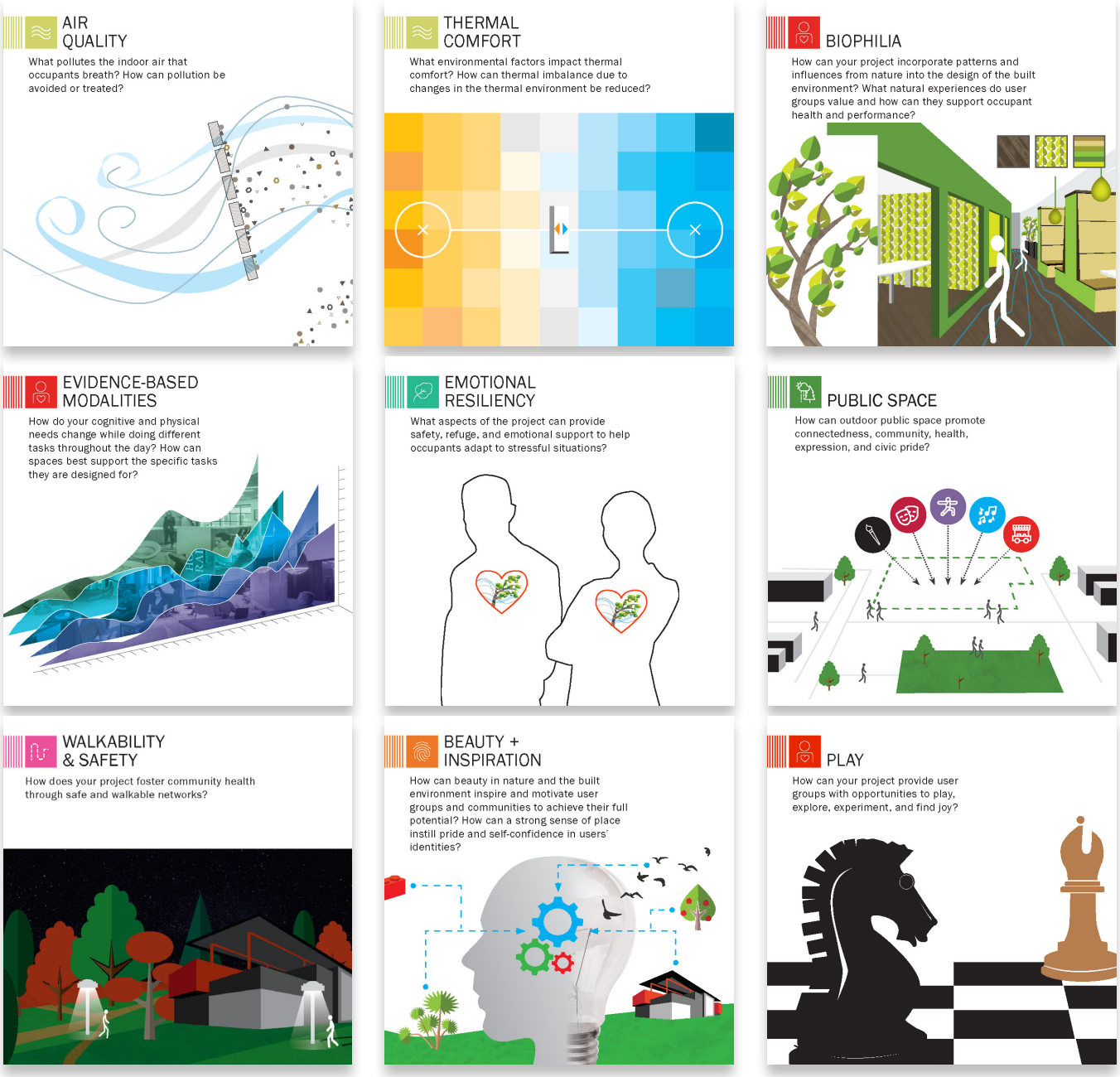
IMPACT AREA 4: CLIMATE AND COMMUNITY RESILIENCE

Groups recognized that NOCCCD should proactively prepare for climate-related hazards, like droughts, and anticipate future needs to ensure the resilience of campuses and operations. It should be second nature to respond to climate-related hazards and risks.



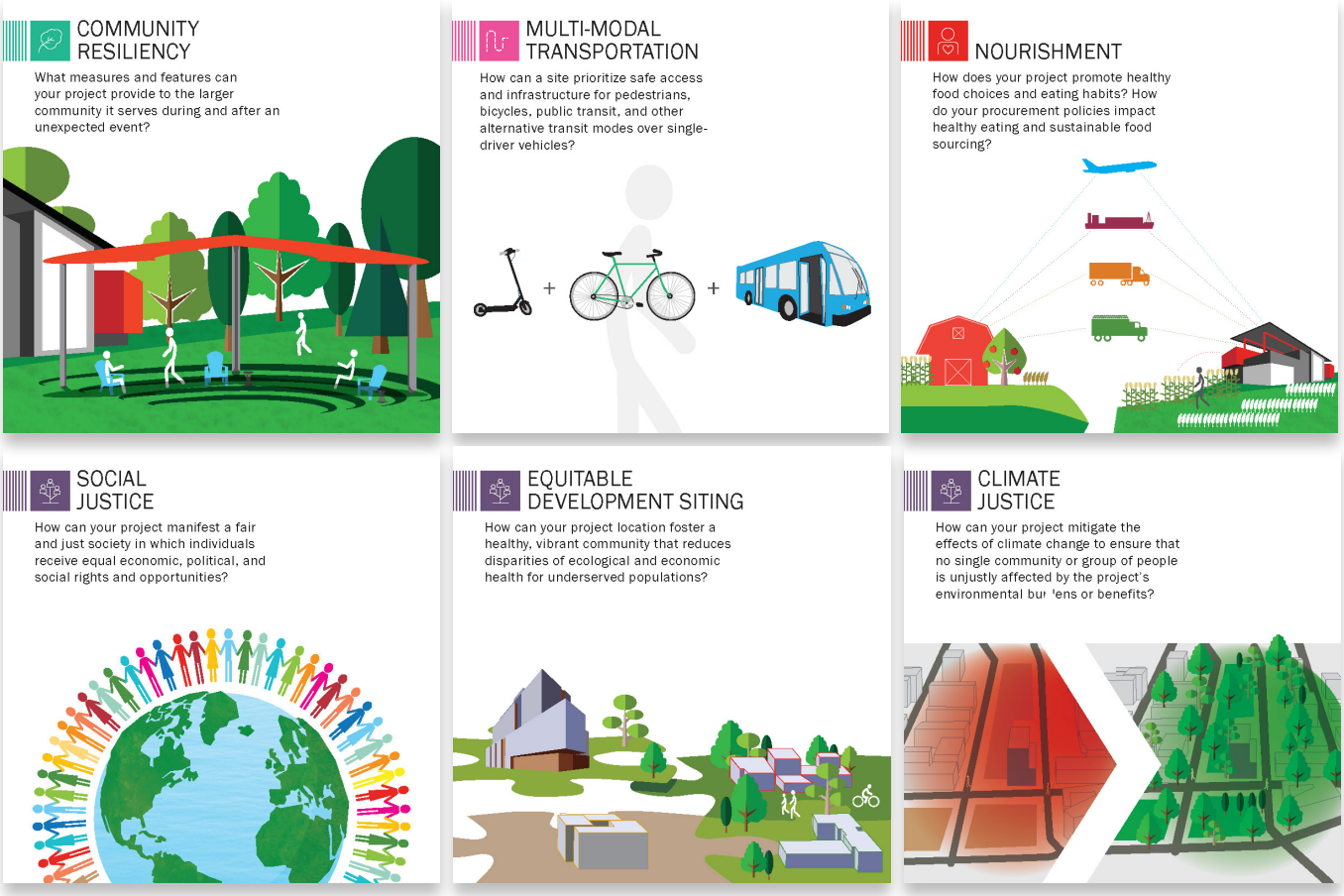
IMPACT AREA 5: SPACES FOR WELLNESS

Participants across groups shared that while there are many programs and groups supporting wellness across campuses, spaces do not always support a sense of wellness and belonging or enable existing programs. Participants shared the need for spaces that support safety, wellness, and emotional resilience, including outdoor gathering spaces, comfortable indoor environments, places to decompress, and opportunities for physical activity on campus. They recognized the disparities in access to quality outdoor spaces across campuses. Many participants also connected community resilience and public space, envisioning more walkable and inviting outdoor environments that welcome community members into NOCCCD campuses.



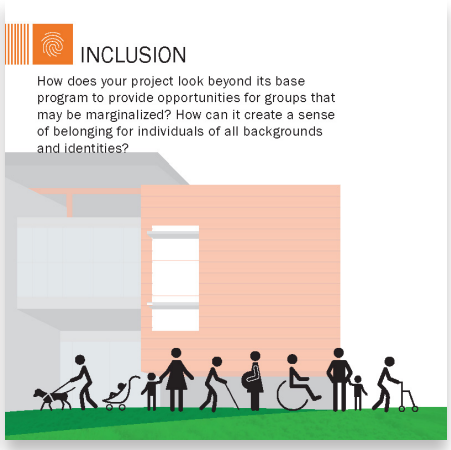
IMPACT AREA 6: BASIC NEEDS

Participants agreed upon the importance of reducing barriers to access within/to NOCCCD by providing equitable access to resources that meet students' basic needs in and beyond the classroom. They identified nourishment – including access to healthy food – as a key resource needed by students. Groups included the *Climate Justice* card as part of this topic, identifying access to basic resources including healthy food as a climate justice issue. Participants recognized that students need access to basic needs resources not just on campus but in the communities where they live.



IMPACT AREA 7: INCLUSION AND MULTI-CULTURAL RELEVANCE

Participants across groups identified the need for environments that reflect the diverse student population already being served. Small groups mentioned the importance of cultural and gender identity representation, including inclusion in public art and course materials. They asked for accessible campus wayfinding that welcomes visitors, including those speaking languages other than English, to ease their on-campus experience. Some groups emphasized accessible information in many languages and increased community outreach, including to non-traditional student populations and adult learners. Finally, some groups called for facilities that better support diverse populations through design elements like gender-neutral bathrooms and prayer rooms.



OVERARCHING LENS: ORGANIZATIONAL TRANSFORMATION

A cultural and decision-making shift is needed across the district to support conscientious resource and asset management across all other impact areas. Participants want to see this shift embedded across the organization to prioritize not just the lowest cost options right now, but the options that support long-term environmental, social, and economic sustainability. Doing so will ensure that things like long-term energy needs reduction and conscious sourcing of goods and supplies are enacted in every-day decisions.

HOW WERE OUTCOMES TRANSLATED INTO THE PLAN?

All impact areas identified through the VALUES workshop are carried forward as impact areas in this plan's recommendations; each impact area includes a set of objectives with clearly defined actions to achieve those objectives. The feedback shared in the VALUES workshop directly informed the goal for each impact area. One additional impact area – Shared Ownership and Accountability (especially related to education and training) - was added by district leadership following the VALUES workshop to align with existing district goals.

One working group at the VALUES workshop.

LISTENING SESSIONS WITH SUBJECT MATTER EXPERTS

Purpose: understand the current conditions related to each sustainability impact area.

WHAT ARE LISTENING SESSIONS?

Listening sessions are in-depth conversations with key stakeholders to understand their experiences and insights about each impact area. For sustainability topics related to the impact areas defined through the VALUES exercise, conversations for each campus focused on understanding current conditions. By understanding what is working today, what is not working, and opportunities for improvement, plan recommendations can be tailored to the unique needs of each campus.

The listening sessions covered the following topics:

TOPIC	RELATED IMPACT AREAS DEFINED THROUGH VALUES
Academics	Shared Ownership and Accountability
Energy	Decarbonization
Water and Waste	Ecological Balance, Disrupting the Culture of Consumption
Wellness	Basic Needs, Inclusion and Multi-Cultural Relevance, Design for Wellness
Resilience	Climate and Community Resilience

WHO PARTICIPATED?

Staff, faculty, and students with experience and/or expertise related to a given topic were invited to discussions for that topic. For each topic, separate discussions were held for Cypress College, Fullerton College, and NOCE/District stakeholders. The following perspectives were present at each Listening Session:

CAMPUS	CYPRESS COLLEGE	FULLERTON COLLEGE	NOCE / DISTRICT
Academics	• Counselor and Faculty Member, Professional Development • Counselor and Learning Disability Specialist • Interim Vice President, Administrative Services • President	• Co-Chair of Sustainability Committee and Faculty • English Professor • Sustainability Director • Technology	• Director, Administrative Services • Facilities Custodian
Energy	• Campus Electrician • Director, Maintenance • Interim Vice President, Administrative Services • Oversight of Capital Projects • System Project Manager, Capital Projects	• Director, Facilities • History Faculty • Researcher	• Accounts • Accounting Department Staff • Accounting Specialist • Buyer II in Purchasing Department • Director, Administrative Services • District Director, Planning and Construction • Facilities Custodian • Manager, District Facilities Planning, Maintenance, and Construction
Water and Waste	• Assistant Project Manager, Capital Projects • Director, Facilities and Sustainability Committee • Oversight of Capital Projects • President • Sustainability Committee Member	• Earth Sciences Faculty Member, Sustainability Committee Co-Chair • Director, Facilities • Student of Environmental Science/Political Science • Director, sustainability	• Accounting Specialist • District Director, Planning and Construction • Director, Administrative Services • Facilities Custodian • Manager, District Facilities Planning, Maintenance, and Construction
Wellness	• Counselor • Counselor, Professional Development Coordinator, Sustainability Committee Member • ESL Faculty and LGBT Liaison • Health Educator at Health Center, Co-Advisor of Active Minds • Interim Vice President, Administrative Services • Mental Health Counselor	• Anthropology Professor • Re-entry Student • Director, Sustainability	• Assistant Director, Facilities • Facilities Custodian • Manager, District Facilities Planning, Maintenance, and Construction
Resilience	• Assistant Manager, Capital Projects • ESL Faculty and LGBT Liaison • Faculty member • Interim Vice President, Administrative Services • Project Manager, Capital Projects	• Earth Sciences Faculty Member, Sustainability Committee Co-Chair • Director, Sustainability	• District Director, Planning and Construction • Facilities Custodian • Manager, District Facilities Planning, Maintenance, and Construction

WHAT ACTIVITIES WERE INCLUDED?

For each topic listed above, a one-hour virtual meeting covered a common set of questions:

- What is already working or in progress now?
- What is not working?
- Where do you see opportunities for improvement?

Workshop participants shared knowledge and experiences related to the topic, with additional follow-up questions posed by DLR Group facilitators. To ensure depth of conversation, facilitators prepared topic-specific questions based on conversations in VALUES, existing sustainability efforts at NOCCCD, and knowledge of the industry.

Evaluating Resilience: Resilience listening session participants were asked to complete the Second Nature's Campus Evaluation of Resilience Dimensions before the session. This evaluation is an interactive worksheet where participants rated their respective NOCCCD campus through the lens of five resilience dimensions: infrastructure, economics, ecosystem services, social equity & governance, and health & wellness. The purpose of this evaluation is to create a baseline measurement of campus resilience and develop initial indicators of resilience within their institution.

CLICK HERE to see Second Nature's Campus Evaluation of Resilience Dimensions Worksheet

The results of the evaluation were used to inform the goals of this plan and aid in the creation of the unique goals and actions. As NOCCCD continues to progress with their sustainability efforts, participants can retake the Campus Evaluation of Resilience Dimensions and compare scores to the original baseline to track improvements.

WHAT WERE THE OUTCOMES?

Following the listening sessions, DLR Group reviewed and synthesized feedback to align with the impact areas identified in VALUES. The findings within each impact area are organized into the following categories:

- **Assets** – existing efforts, programs, resources, and/or actions that already support the impact area. Assets can be celebrated and expanded through plan recommendations.
- **Challenges** - conditions that may be obstacles to achieving the impact area today. The plan's recommended actions should address these barriers to implementation to ensure success.

DECARBONIZATION

ASSETS: What's working today?

- Solar panel project planned at Fullerton.
- Energy reduction measures across campuses.
- Metering and tracking steps at Cypress and Fullerton.
- Transportation decarbonization: electric vehicle charging at all campuses, incentives for carpooling.

CHALLENGES: What is not working?

Energy Reduction

- Existing behaviors surrounding energy use do not always align with energy savings and reduction.
- Many existing buildings are outdated and inefficient.
- Challenges monitoring, metering, and tracking existing energy use.
- Effective and energy-efficient equipment is more costly.
- Currently, grounds maintenance practices and equipment are carbon-intensive.

Energy Generation

- Challenges funding and approving energy generation projects.
- Physical and financial constraints to feasibility of solar projects.

Transportation Decarbonization

- Electric vehicle fleet is not financially viable.
- Unable to track the cost of EV charging.
- Commuter campuses – many people commute from far away.
- Lack of student awareness of transit options and supports.
- Transit passes do not apply to all regional transit providers.
- Campus context and entrances pose safety risks for bikes and pedestrians.

ECOLOGICAL BALANCE

ASSETS: What's working today?

- Indoor water conservation efforts.
- Drought-tolerant landscaping and reduced irrigation use (Fullerton, District/NOCE).
- Stormwater management infrastructure reduces flooding.
- Line-by-line water metering at Fullerton.

CHALLENGES: What is not working?

- Large campuses require lots of water to operate.
- Lack of non-potable water supply leads to reliance on potable water for all uses.
- Water infrastructure is outdated and inefficient.
- Water conservation measures can have unintended consequences for other sustainability goals.

DISRUPTING THE CULTURE OF CONSUMPTION

ASSETS: What's working today?

- Practices that extend useful life of equipment.
- Effective waste management at Cypress.
- Online course materials reduce paper waste.
- Segregation of paper and cardboard at Fullerton.

CHALLENGES: What is not working?

- Ineffective waste management at Fullerton.
- Purchasing and procurement decisions do not always align with waste reduction goals.
- Lack of baseline waste data makes it hard to set improvement goals; haulers do not provide waste data.
- Limited infrastructure to support re-usable items (especially related to food serving and preparation).
- Lack of haulers for recyclables/challenges with recycling market.
- Food waste is not being diverted from landfills.
- Waste diversion efforts require additional staff, training, and costs.
- No existing policies/practices for re-use of goods and supplies.

CLIMATE AND COMMUNITY RESILIENCE

ASSETS: What's working today?

- Emergency resources are available.
- Some training and awareness of how to respond to unexpected events.
- Strong system to handle power outages: communication and restoring operations.
- Some infrastructure improvements to support resilience: seismic upgrades.
- Community events: swap meet.

CHALLENGES: What is not working?

- Some infrastructure is vulnerable to future risks and unexpected events.
- Reliance on outside energy sources.
- Heat islands on some campuses.
- Limited communication and coordination surrounding unexpected events.
- Challenges balancing security concerns with desire for community access.

SPACES FOR WELLNESS

ASSETS: What's working today?

- Some existing spaces and design elements that support wellness.
- Holistic definition of wellness that includes mental, physical, and emotional wellness.
- Existing programs that support mental and physical wellness.

CHALLENGES: What is not working?

- Indoor environmental conditions do not currently support wellness.
- Limited spaces that support social gathering, connection, and restoration.
- Limited access to outdoor spaces that support wellness, physical activity, and rejuvenation.
- Limited awareness of existing wellness events, programs, and resources.
- Increased pressures on students and staff deepen the need for spaces that promote wellness and reduce stress.

BASIC NEEDS

ASSETS: What's working today?

- Food services, including food pantries and meal vouchers.
- Mental health services and supports.
- Online learning provides access to students who cannot come to campus.
- Housing and financial supports.
- Transportation resources including bus passes for Fullerton and Cypress students.

CHALLENGES: What is not working?

- Unreliable funding sources for basic needs, leading to some existing services being discontinued.
- Challenges with existing food resources, including limited offerings, space constraints, and limited staff.
- Mental health challenges, increased stressors, limited mental health staff and training, lack of dedicated space for mental health services and programs, and staff overwhelm and burnout.
- Housing insecurity issues, including long commutes and unaffordable housing.
- Challenges with affordability of tuition and supplies, especially for non-traditional students.
- Lack of awareness of existing basic needs resources.

INCLUSION AND MULTI-CULTURAL RELEVANCE

ASSETS: What's working today?

- Some existing affinity groups and plans for spaces to support them.
- ADA accessibility improvements across campuses.
- More on-campus social interaction and engagement from students.

CHALLENGES: What is not working?

- Limited awareness, education, and participation in training around diversity and inclusion.
- Political climate of Orange County can create obstacles to inclusion.
- Not enough physical spaces for affinity groups, inclusion, and shared identity.

SHARED OWNERSHIP FOR SUSTAINABILITY

ASSETS: What's working today?

- Cypress has a graduation requirement: Social Justice, Equity, and Sustainability.
- Some colleges have academic partnerships with innovators who can help solve the climate crisis.
- Across campuses, faculty champions are passionate about sustainability and working to integrate it into their courses.
- Collaborative, strategic visioning at Cypress.

CHALLENGES: What is not working?

- Curriculum is piecemeal with no sustainability requirements across courses.
- No existing academic course options focused solely on sustainability.
- Outside influences, like funding mechanisms and state requirements, limit the district's ability to offer dedicated sustainability courses.
- Challenges balancing district policy vs. campus autonomy.
- Limited employee awareness, training, and capacity to support sustainability goals in coursework.

HOW WERE OUTCOMES TRANSLATED INTO THE PLAN?

Detailed information from the listening sessions directly informed the actions included in this plan. The actions considered how assets can be built upon and expanded, how barriers and challenges can be addressed, and how visions for the future can be realized.

CAMPUS ENGAGEMENT

Purpose: gather feedback from broader campus communities about assets, challenges, and opportunities related to this plan's impact areas.

WHAT IS CAMPUS ENGAGEMENT?

At the encouragement of the Board of Trustees, engagement were conducted with the broader community of students, faculty, and staff at each campus to ensure their experiences and priorities were reflected in this plan. The campus engagement asked similar questions to the listening sessions: *What is working? What is not working? What would you like to see in the future?* However, they consisted of shorter conversations with a wider range of campus community members instead of small-group, extended discussions.

WHO PARTICIPATED?

Campus engagement reached 167 campus community members, including students, staff, and faculty. Cypress and Fullerton, most participants were students, while at NOCE most participants were faculty and staff. The engagement reached 39 people at Cypress, 65 people at Fullerton, and 63 people at NOCE.

WHAT ACTIVITIES WERE INCLUDED?

At Cypress and Fullerton, campus engagement sessions were conducted through in-person tabling sessions. During two four-hour tabling sessions per campus, DLR Group team members set up booths in highly trafficked areas of campus to seek out feedback from any campus community members willing to engage. Tabling days and times were selected based on student schedules to ensure maximum reach.

At each tabling session, campus community members who agreed to provide feedback were given an overview of the planning process and impact areas. Then, they were invited to either write down their feedback on sticky notes or have a conversation with a DLR Group team member who then recorded their feedback. Feedback for each impact area focused on things working well, challenges, and opportunities for the future.

At NOCE, campus engagement was conducted through an online survey. A survey was sent out via email to all NOCE students, staff, and faculty to allow participation from students with a variety of schedules. To match the in-person engagement conducted at Cypress and Fullerton, NOCE participants were asked to select the impact areas they would like to provide feedback on. Then, within each impact area they were asked to share things working well, challenges, and opportunities for the future.

WHAT WERE THE OUTCOMES?

Feedback from all three campuses was synthesized to identify themes within each impact area. Some themes were specific to a given campus, and some themes came up across more than one campus. Many of the ideas shared align with the outcomes from the listening sessions. Some impact areas, such as Basic Needs, Inclusion and Multi-cultural Relevance, and Spaces for Wellness received more feedback because they relate more to the day-to-day experiences of students, staff, and faculty.

DECARBONIZATION

ASSETS: What's working today?

- Electric vehicle charging stations.

CHALLENGES: What is not working?

- No visible solar panels on campus.

VISIONS: What opportunities do you envision for the future?

- Expansion of solar technology.
- Committed shift towards renewable energy, including collaboration with college departments and students to make it happen.

ECOLOGICAL BALANCE

ASSETS: What's working today?

- Water refill stations.

CHALLENGES: What is not working?

- Lack of native plants (Cypress).

VISIONS: What opportunities do you envision for the future?

- Student/Community gardens that could grow fresh produce.
- More native, drought-tolerant plants across district.

DISRUPTING THE CULTURE OF CONSUMPTION

ASSETS: What's working today?

- Re-use of office supply materials at NOCE.
- Increased digitization of course and meeting materials reduces paper waste.

CHALLENGES: What is not working?

"Starbucks is not good for the environment or our wallets." – Fullerton Student

- Lack of recycling and waste options.
- Lots of single-use plastics and items offered across all three campuses.

VISIONS: What opportunities do you envision for the future?

- Increased recycling and re-use of materials, including inviting some students to support in the recycling process.
- Reduce consumption of single-use items across campuses through strategies like reusable cafeteria dishes, ban of plastic bottles sold on campus, and refillable water stations.
- Create a material/goods sharing system.

CLIMATE AND COMMUNITY RESILIENCE

ASSETS: What's working today?

- Air conditioning and heating.
- Emergency preparedness measures, including drills, communications, and assigned roles on Emergency Response Teams.

CHALLENGES: What is not working?

"[Emergency response] is very last minute, and when districts in the area are closing, we are late in making those decisions." - Staff

- Last-minute decision-making during unexpected events.

VISIONS: What opportunities do you envision for the future?

- Shade to address extreme heat.

SPACES FOR WELLNESS

ASSETS: What's working today?

"I feel very happy and joyful when studying here. They know me here - the students and teachers." – Cypress Student

- Wellness focused events at Fullerton.
- Opportunities for social connection and support across all three campuses, and the spaces that enable these opportunities.
- Connection to nature on the Cypress campus.
- Places to decompress.

CHALLENGES: What is not working?

"There needs to be more tables with shade outside and more tables in the cafeteria for accessible seating!" – Cypress Student

- Lack of placemaking at Cypress.
- Lack of dedicated staff break and wellness spaces at NOCE.
- Lack of thermal comfort in indoor and outdoor environments.
- Limited dedicated students spaces at NOCE, like student centers, that enable socializing, gathering, and connection.
- Outdoor spaces are not fully meeting needs: at Cypress and Fullerton, existing outdoor spaces have insufficient shade, seating, and maintenance. At NOCE, there is little to no outdoor space.

VISIONS: What opportunities do you envision for the future?

"Look at the space available and how it can be re-imagined to be more inclusive and allow for students to connect and build community." - Staff

- More opportunities to connect and gather, including programs, activities, and spaces like break rooms, quads, and seating.
- High-quality outdoor spaces with eating options and shade.
- Better maintenance and repair of existing amenity spaces.
- Dedicated mental health and wellness spaces.
- Improved indoor environmental quality, including thermal comfort.
- Resources to reduce academic stress.
- Staff training to support students with mental health challenges.

BASIC NEEDS

ASSETS: What's working today?

"The $12 food vouchers help SO much! Helps my stress and finances." –Fullerton Student

Students feel grateful for and supported by a variety of resources offered across all three campuses, including:

- Food pantries (identified by Cypress and NOCE students and employees).
- The $12 per day meal voucher program at Cypress and Fullerton is a vital student support.
- The transportation resources offered, including free bus passes at Cypress and Fullerton and the special transportation options for qualifying students.
- Access to technology, including the laptop loaner program at NOCE.
- Helpful tutoring resources (identified by students at Cypress and NOCE).
- Financial support for critical supplies like books and hygiene products.
- Partnerships including Pathways of Hope that support students' basic needs.
- Housing resources emailed to students at Cypress.
- Mental health services available to students at Cypress.

CHALLENGES: What is not working?

"[NOCE] Students are expected to come on campus to be provided with these resources. Many students are virtual or off-site and many of these resources are much harder for them to access."
- Faculty

- Some basic needs resources/programs rely on insufficient or expiring funding sources.
- Limited resources to help students find on and off-campus employment opportunities.
- Inequitable access to resources for NOCE students and online students, including health, food, and transportation, due to most resources being offered on-site at Cypress and Fullerton.
- On-campus food options are not always healthy, fresh, or available during the times when students need to access them.
- Transportation challenges, including high gas prices and transportation passes that do not include regional transit agencies beyond OCTA.
- Lack of awareness/communication about existing basic needs resources.
- Insufficient financial support for basic supplies like books, clothing, and household items

VISIONS: What opportunities do you envision for the future?

"Knowing that basic needs funding will be on-going will help us to plan for longer term strategies." - Staff

- Increased access to student mental health supports.
- Equitable access to basic needs resources for NOCE students, including heath clinics, food, and transit passes.
- Student housing offered on or near campus.
- Wider variety of healthy food options in Cypress and Fullerton cafeterias.
- Stable funding strategy to support basic needs across all campuses.
- Holistic mental health supports.
- A centralized place to access basic needs and wellness resources, such as a dedicated basic needs center.
- More opportunities for student financial aid.

INCLUSION AND MULTI-CULTURAL RELEVANCE

ASSETS: What's working today?

"I am very happy that [Asian Pacific Islander Desi American] students are represented, and that an APIDA center is coming." – Fullerton Student

- Some existing affinity groups and plans for spaces to support them.
- ADA accessibility improvements across campuses.
- More on-campus social interaction and engagement from students.

CHALLENGES: What is not working?

"I believe physical safety should be taken into consideration, and training to work with students with mental health issues. We aren't all trained in these areas." - Staff

- Limited resources and materials for some languages spoken by students.
- Insufficient cultural events and programming for some identity groups, including BIPOC students.
- Lack of land acknowledgments.
- Hostile environment for BIPOC faculty, including "bullying, misogyny, racial microaggressions, racially insensitive and racist comments," with a lack of accountability amongst leadership for addressing these issues.
- Limited training for staff and faculty to support students through mental health and identity issues.
- Perceptions by some of affinity groups, inclusion, and equity as a threat to personal freedoms.

VISIONS: What opportunities do you envision for the future?

> *"I would like to see a club of Chicano students or just want other than [Cinco] De Mayo and Dia De Los Muertos, but more importantly something that everyone can be united and get to know each other's backgrounds." – Fullerton Student*

- More opportunities for affinity groups, allyship, and connection based on varying identities.
- Physical spaces, such as student centers, that can support connection and programming.
- Expanded language supports.
- More equitable representation of religions beyond Christianity in holidays, coursework, etc.
- More student engagement around inclusion and identity safety.
- More culturally responsive food options.
- Universal design.

SHARED OWNERSHIP FOR SUSTAINABILITY

ASSETS: What's working today?

- Staff learning, training, and professional development opportunities.
- Collaborative goal-setting for departments.
- Communication around sustainability initiatives.
- Continuing education program supports social sustainability by providing students with new pathways to success.

CHALLENGES: What is not working?

- Awareness of equity, culture, and teacher quality issues without action or accountability for addressing them.
- Some leadership/management can be a roadblock to change.
- Siloing of campuses and courses.
- Limited communication about sustainability initiatives.

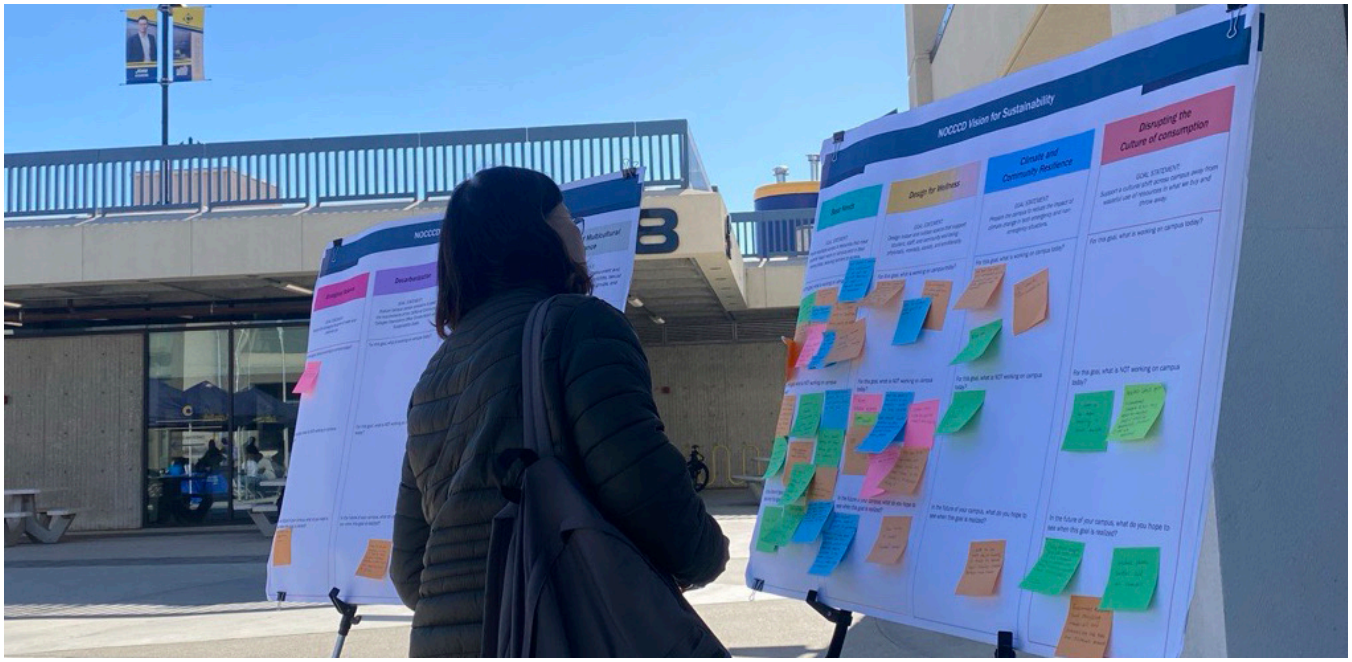
VISIONS: What opportunities do you envision for the future?

- Integration across the district's campuses.
- Increased communication and outreach around sustainability.
- Encourage environmentally conscious career paths.
- Expand courses, academic offerings, and tuition support.

HOW WERE OUTCOMES TRANSLATED INTO THE PLAN?

Similar to listening session outcomes, detailed information from the campus engagement directly informed the actions included in this plan. The actions considered how assets can be built upon and expanded, how barriers and challenges can be addressed, and how visions for the future can be realized.

Campus Engagement at Fullerton College.



Campus Engagement at Cypress College.

3

SUSTAINABILITY ACTION PLAN

RETURN TO TOC

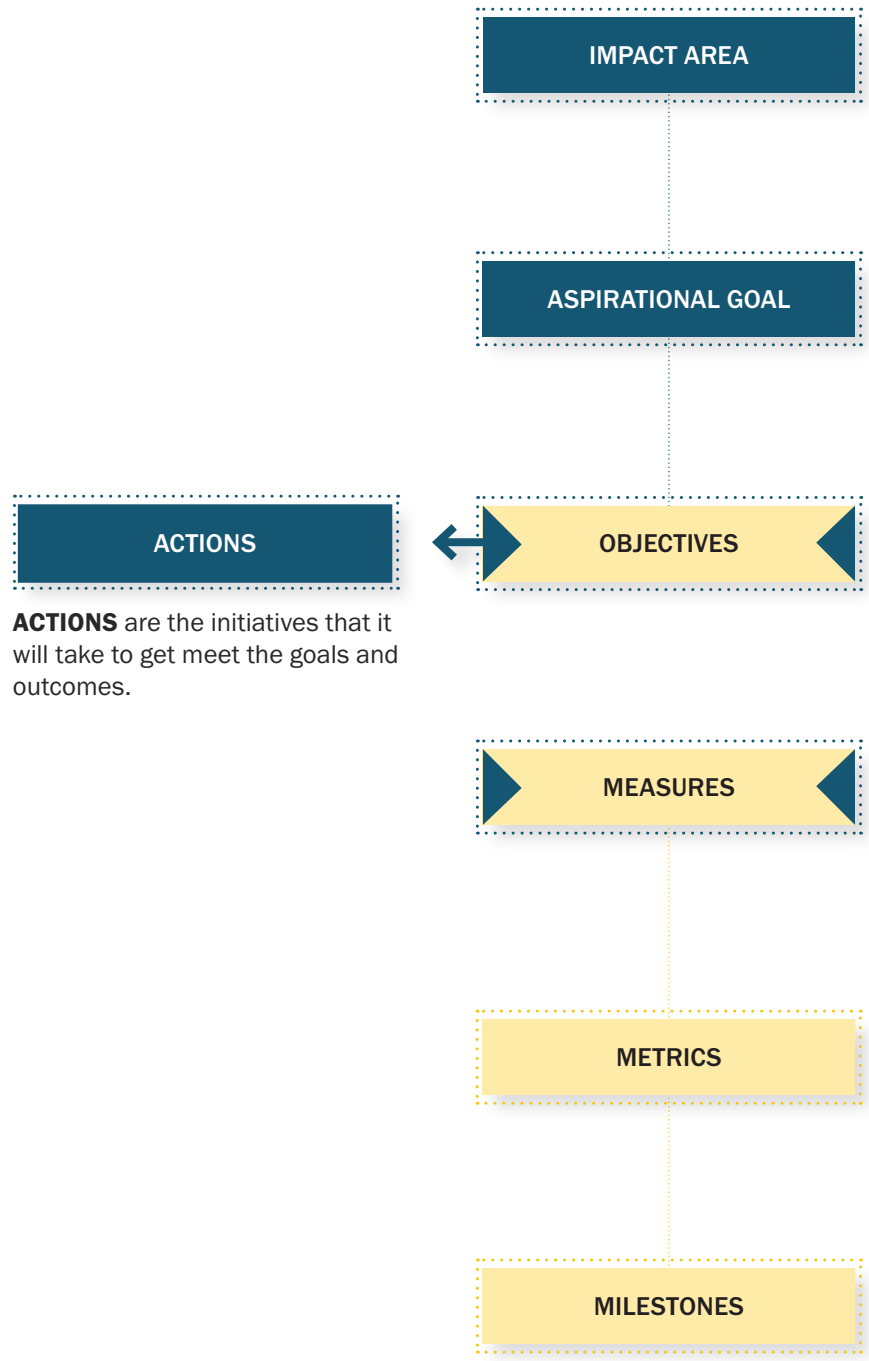
ESTABLISHING A UNIQUE PLAN

Aligning this Sustainability Action Plan With State Policies

Recommendations in this SAP were closely aligned with two existing sustainability frameworks that already guide NOCCCD's sustainability efforts: the California Community Colleges Chancellor's Office (CCCCO) Climate Action and Sustainability Goals and Advancement of Sustainability in Higher Education (AASHE) Stars Reporting Tool. These were cross-referenced with the goals, objectives, and actions of this SAP to ensure support of existing commitments. The goals, objectives, and actions outlined in the following pages identify opportunities to position NOCCCD as a leader in sustainability for these peer-supported frameworks while honoring each campus community's unique priorities.

IMPACT AREA FRAMEWORK

This document is structured by eight impact areas and organized into a hierarchical series of goals, objectives, and actions as outlined below.



IMPACT AREAS are the top priorities addressed through this framework, created collectively by the District.

GOALS establish aspirational thinking that the District will work toward. These were established by cross-referencing the CCCCO goals and AASHE Stars framework with Impact Areas.

OBJECTIVES outline measurable actions were established by from District and Campus engagement, CCCCO Goals, and Higher Education best practices.

ACTIONS are the initiatives that it will take to get meet the goals and outcomes.

MEASURES align with to define what success will look like. They suggest ways objectives can be tracked using quantitative and qualitative data to monitor progress throughout the implementation process.

METRICS outline how the objective will be measured based on the data available or data required.

MILESTONES represent the timeline associated with each objective. These outline short-, mid-, and long-term actions.

SUSTAINABILITY ACTION PLAN IMPACT AREAS

	IMPACT AREA	GOAL STATEMENT
	DECARBONIZATION	Reduce campus carbon emissions to meet the requirements of the California Community Colleges Chancellors Office Climate Action and Sustainability Goals.
	ECOLOGICAL BALANCE	Reduce NOCCCD's impact on local ecosystems and water systems, both on and beyond campus.
	DISRUPTING THE CULTURE OF CONSUMPTION	Support a cultural shift across campuses away from wasteful use of resources toward conscious procurement, consumption, and disposal.
	CLIMATE AND COMMUNITY RESILIENCE	Prepare the campuses to reduce the impact of climate change in both emergency and non-emergency situations.
	SPACES FOR WELLNESS	Design indoor and outdoor spaces that support students, staff, faculty, and community well-being - physically, mentally, socially, and emotionally.
	BASIC NEEDS	Provide equitable access to resources that meet students' basic needs on campus and in their communities and reducing barriers to access.
	INCLUSION AND MULTI-CULTURAL RELEVANCE	Reinforce an inclusive campus environment and culture for students of all races/ethnicities, sexual orientations, gender identities, age groups, and academic needs.
	SHARED OWNERSHIP FOR SUSTAINABILITY	Increase shared accountability for, involvement in, and action around sustainability across campus communities.

AASHE STARS ALIGNMENT

The Sustainability Tracking, Assessment & Rating System (STARS) is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance. The Association for the Advancement of Sustainability in Higher Education (AASHE) created and maintains the STARS Framework. There is no cost to use the online Reporting Tool.

STARS is a critical component of the California Community Colleges Board of Governors Climate Action and Sustainability Framework that guides NOCCCD. The framework refers to STARS in two places: 1) in the **RESOURCES AND TOOLS FOR CAMPUS SUSTAINABILITY** section as a tool for measuring campus sustainability progress and 2) in the **LOOKING TO THE FUTURE** section, which encourages Districts and colleges to "complete peer or independent STARS Reporting Assurance." A full access subscription is required to earn a STARS Bronze, Silver, Gold, or Platinum rating.

While NOCCCD has begun to adopt STARS reporting tools, there is opportunity for expansion to continue tracking progress as actions in this SAP are implemented. Fullerton College used the free reporting tool as part of its 2021 Sustainability Plan, but other campuses have yet to adopt STARS reporting.

The STARS Framework is not set up to accommodate district-wide scoring. Therefore, each college will manage its own STARS assessment. Leadership will then decide if they wish to submit their campus-specific data and earn an official STARS rating.

CCCCO AREA AND AASHE STARS ALIGNMENT

	IMPACT AREA	CCCCO AREA	AASHE STARS SUBCATEGORY
	DECARBONIZATION	Greenhouse Gas Emissions Reduction, Transportation, Energy, and Purchasing and Procurement	Air and Climate, Building, Transportation, Energy, and Purchasing
	ECOLOGICAL BALANCE	Water	Water and Grounds
	DISRUPTING THE CULTURE OF CONSUMPTION	Purchasing/Procurement and Waste	Waste, Purchasing, and Campus Engagement
	CLIMATE AND COMMUNITY RESILIENCE	Planning and Administration: Coordination and Planning	Innovation and Leadership
	SPACES FOR WELLNESS	Green Buildings	Wellbeing and Work
	BASIC NEEDS	Food Systems	Diversity and Affordability, Food and Dining, and Wellbeing and Work
	INCLUSION AND MULTI-CULTURAL RELEVANCE	Environmental Justice: Aligning to Diversity, Equity, and Inclusion Strategy	Diversity and Affordability
	SHARED OWNERSHIP FOR SUSTAINABILITY	Advancing Climate Action Education and Engagement, and Building Alignment to Campus Operations, Teaching, and Learning	Curriculum, Campus Engagement, and Coordination and Planning

THE NOCCCD SUSTAINABILITY ACTION PLAN

NAVIGATION TIP: CLICK IMPACT AREA TITLE TO JUMP TO TOPIC.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1. Decarbonization

GOAL | REDUCE CAMPUS CARBON EMISSIONS TO MEET THE REQUIREMENTS OF THE CALIFORNIA COMMUNITY COLLEGES CHANCELLORS OFFICE CLIMATE ACTION AND SUSTAINABILITY GOALS.

RETURN TO SAP TOC

WHAT IS THE *DECARBONIZATION* IMPACT AREA?

Decarbonization means reducing and/or eliminating carbon emissions from the use of fossil fuels like oil, gas, and coal. This consists of using renewable energy sources, designing more efficient and sustainable buildings, transitioning to electric fleets, and decreasing the use of single occupancy vehicles, among other strategies.

WHAT DOES THIS IMPACT AREA INCLUDE?

- Measure and annually report greenhouse gas (GHG) emissions
- Reduce Scope 1 GHG emissions
- District Fleet Decarbonization
- Renewables
- Reduce Energy Use
- Scope 3 GHG emissions

DEFINING EMISSIONS Carbon emissions are the release of carbon into the atmosphere, one of the main contributors to climate change. 40 percent of carbon emissions are caused by burning fossil fuels to heat and cool spaces and water for buildings. Therefore, NOCCCD seeks to decarbonize the campus fuel supply by first using less energy and then obtaining a larger portion of its energy from renewable sources, such as solar PV.

Carbon emissions are typically identified based on their source:

Scope 1: These emissions are direct GHG emissions occurring from sources that are owned or controlled by the institution. Scope 1 emission sources include: Combustion of fuels to produce electricity, steam, heat, or power using equipment in a fixed location such as boilers, burners, heaters, furnaces, incinerators; and combustion fuels by institution-owned cars, tractors, buses, and other transportation devices.

Scope 2: These emissions are indirect GHG emissions that are a consequence of activities that take place within the organizational boundaries of the institution, but that occur at sources owned or controlled by another entity. Scope 2 emission sources include purchased electricity, purchased heating, purchased cooling, and purchased steam.

Scope 3: These emissions are indirect emissions resulting from NOCCCD activities that occur from sources owned or controlled by another entity, such as students and employees commuting to and from work, employee business travel, and transportation of products, materials, and waste.

Other carbon emission sources not included in this plan are contract manufacturing and franchises: emissions from waste generated by NOCCCD when the point of GHG emissions occurs at sources or sites that are owned or controlled by another company, e.g. methane emissions from landfilled waste.

DECARBONIZATION AND ENVIRONMENTAL JUSTICE

Decarbonization helps improve air quality by reducing the amount of carbon emissions in the atmosphere. It is now widely known that the most vulnerable populations are disproportionately affected by the burning of fossil fuels because low-income neighborhoods are often located on the urban-industrial divide. NOCCCD's three campuses are negatively affected by carbon emissions based on the US Climate Vulnerability Index.

California laws acknowledge these environmental injustices and seek to protect the most vulnerable communities. The District must therefore show progress towards decarbonizing its owned assets.

RESPONSIBLE DEPARTMENTS

District: Facilities
Cypress: Maintenance & Operations
Fullerton: VP of Administrative Services, Maintenance and Operations
NOCE: Facilities

CHANCELLOR'S OFFICE GOALS ALIGNMENT

Greenhouse Gas Emissions Reduction:
Reduce campus/district GHG emissions by at least 75% (compared to 2019 baseline) by 2030 and 100% by 2035 to align with the state's goals.

1.1 OBJECTIVE | MONITORING AND REPORTING

ESTABLISH SYSTEMS OF ACCOUNTABILITY TO MEASURE AND TRACK CARBON EMISSIONS ACROSS SCOPE 1, SCOPE 2, AND SCOPE 3.

DRIVERS

- There are challenges with monitoring, metering, and tracking existing building-level energy consumption; stakeholders lack building and campus level consumption data.
- It's hard to identify which projects and behavior change programs are most effective without data to track their impacts.

ACTIONS

Short-term (0-2 years):

- BASELINE AND BENCHMARKING: Report GHG emissions to the Chancellor's Office to enable future participation in national benchmarking programs with peer institutions.
- Inventory Scope 3 GHG emissions from one or more of the following sources:
  - Business travel (the transportation of employees and students for institution-related activities in vehicles owned or operated by third parties).
  - Commuting (regular commuting to and from the institution by students and employees).
  - Purchased goods and services (e.g., food and paper).
  - Capital goods (e.g., equipment, machinery, buildings, facilities, and vehicles).
  - Fuel- and energy-related activities not included in Scope 1 or 2.
  - Other sources not included in Scope 1 or 2 (e.g., student travel to/from home).
- Identify campus stakeholders responsible for utilizing and maintaining Energy Management Dashboard.
- Complete campus owned vehicle inventory at Cypress and NOCE to more accurately benchmark Scope 1 emissions.

Mid-term (3-5 years):

- ENERGY MANAGER(S): Acquire dedicated resources to manage and implement the integrated energy plan and dashboard across all three campuses. Consider hiring a dedicated District Energy Manager and/or incorporating the duties of such a position into existing district-wide and campus-specific roles. (Per Chancellor's Office Goal)

Long-term (6-10 years):

- Deploy districtwide cloud-based analytics platform to integrate real time building energy management and operations data across entire portfolio.

MEASURE OF SUCCESS

- Percentage reduction in total carbon emissions, carbon emissions per person and carbon emissions per SF compared to 2019 baseline.

METRICS | MILESTONES

- Percentage reduction in total carbon emissions (per person and per square foot) compared to 2019 baseline:
  - 30% reduction by 2025.
  - 75% reduction by 2030. (Per Chancellor's Office Goal)
  - 100% reduction by 2035. (Per Chancellor's Office Goal)
- Data-informed facilities, operations, and maintenance decision-making that incorporates access to utility usage data:
  - Quarterly meetings occur at each campus to review dashboard and assess and strategize around decarbonization.
  - Planning & Budget Committee and Sustainability Committee have reviewed and discussed dashboard at least 4x per year.
  - District Monitoring: Track sustainability progress and performance in each impact area annually.

1.2 OBJECTIVE | REDUCING BUILDING RELIANCE ON FOSSIL FUELS (SCOPE 1)

REDUCE CARBON EMISSIONS CAUSED BY ON-SITE FUEL COMBUSTION FOR BUILDING OPERATIONS.

DRIVERS

- Challenges funding and approving energy generation projects, including less funding and lengthy approval process (NOCE).
- Physical and financial constraints to feasibility of transitioning existing buildings to all electric.
- Buildings connected to Central Plant infrastructure.
- Central Plant upgrades included in Facilities Masterplan.

ACTIONS

Short-term (0-2 years):

- GAS APPLIANCE INVENTORY: Conduct a natural gas appliance inventory and identify a timeline for end of life. (Per Chancellor's Office Goal)
- Explore the opportunities of high efficiency central plant alternatives that include heat recovery and heat pump technology that reduces reliance on fossil fuel.

Mid-term (3-5 years):

- Implement energy conservation measures to reduce heating energy need of buildings connected to a central plant.
- Evaluate the feasibility of new buildings to be all electric.

Long-term (6-10 years):

- Replace all natural gas appliances at the end of life with equipment that utilizes alternative fuel sources. (Per Chancellor's Office Goal)

MEASURE OF SUCCESS

- Percentage reduction in total carbon emissions, carbon emissions per person and carbon emissions per SF compared to 2019 baseline.

METRICS | MILESTONES

- Carbon emission reduction by:
  - 30% reduction by 2025.
  - 75% reduction by 2030. (Per Chancellor's Office Goal)
  - 100% reduction by 2035. (Per Chancellor's Office Goal)

SUSTAINABILITY IN ACTION

- Fullerton College recently expanded and upgraded their Central Plant, and is currently constructing a new Maintenance & Operations (M&O) Building, Central Plant Expansion, and Thermal Energy Storage (TES).
- Cypress recently invested in a thermal energy system through Prop 39.

1.3 OBJECTIVE | ENERGY NEED REDUCTION

REDUCE CAMPUS OPERATIONAL ENERGY USE INTENSITY (EUI).

DRIVERS

- Renewables alone will not generate enough energy to meet CCCCO goals, so campuses must focus on energy efficiency in tandem with renewables.
- Energy conservation measures help reduce utility costs.
- Behaviors in buildings do not always align with energy reduction goals; opportunity to educate campus community members.
- Many existing buildings are outdated and inefficient, leaving opportunity for upgrades to reduce energy use intensity; some NOCE equipment is nearing end of useful life.
- The 2023 Educational & Facilities Master Plan Refresh (EFMP) recommends multiple new buildings and building renovations across campuses. All future capital projects should incorporate energy needs reduction strategies to meet District commitments.
- Based on CA State Law, all fluorescent light bulbs must be phased out starting in 2024.

ACTIONS

Actions under this objective are not assigned to a timeline because they should be implemented whenever a major capital project such as a new build or major renovation occurs. *Project Managers at each campus should require design teams to utilize energy modeling and Life Cycle Cost Assessment data to validate the impact of proposed strategies. This data will help NOCCCD apply for funding, such as the Inflation Reduction Act, to help offset added costs associated with deep energy retrofits and specifying higher efficiency HVAC equipment, windows, and lighting.*

Always investigate the following strategies:

District-wide Commitments for Capital Projects:

All Buildings:

- Budget for building level sub-metering for electricity, gas, and water to measure each energy end use that consumes more than 20% of the total separately.
- As meters are installed, update EnergyStar Portfolio Manager to include building-level data.
- Assess building level sub-metering for building level central plant take-offs (for all buildings connected to a central plant).

New Builds AND Renovations:

- Analyze the energy and cost savings potential of each new and remodeled building during early stages of design.
- Develop Zero Net energy (ZNE) and campus electrification strategy for all planned projects (Per Chancellor's Office Goal). For renovations, reference the Integrated Energy Management Dashboard to identify opportunities for energy need reduction. See table below for specific recommended strategies at each campus.
- All new buildings and major renovations designed as ZNE ready. (Per Chancellor's Office Goal).

Retrocommissioning and Scheduled Maintenance

- Leverage the Integrated Energy Management Dashboard to identify the project scope and level of investment needed at each building to accomplish the greatest energy savings. See "Proposed Energy Conservation Measures" section for more detail.
- Explore utility rebate programs, energy performance contracts, and other "paid from savings" financing tools to fund energy saving projects with less than 5-year payback period.

All Future Planned Projects

- Seek near-term board approval to require that all new projects be Net Zero Energy.

OBJECTIVE 1.3 CONTINUED

MEASURE OF SUCCESS

- Percentage reduction of energy usage per conditioned area (SF) compared to 2019 baseline

METRICS | MILESTONES

- Reduction from current kBtu/GSF (2019 baseline of 39,729 kBtu/GSF at NOCE; 60,129 kBtu/GSF at Cypress; and 85,986 kBtu/GSF at Fullerton) by:
  - 25% reduction by 2030 (Per Chancellor's Office Goal)
  - 40% reduction by 2035 (Per Chancellor's Office Goal)

SUSTAINABILITY IN ACTION

- Cypress and Fullerton have converted most lighting to LEDs, which use less energy.
- At Fullerton, newer buildings have automatic lighting controls.
- CA energy policy is removing options to purchase certain types of equipment.

OBJECTIVE 1.3 CONTINUED

CAMPUS-SPECIFIC IMPLEMENTATION: CONSIDERATIONS FOR UPCOMING PROJECTS

Every renovation project is an opportunity for energy needs reduction and projects already planned in the 2024 Educational and Facilities Master Plan present real opportunities to demonstrate how NOCCCD is utilizing its SAP to align with the CCCCO goals.

Renovations: Specific design interventions can support energy needs reduction depending on each building's existing conditions and design. The following specific improvements are recommended for each planned renovation

UPGRADE TYPE	CAMPUS SPECIFIC ALIGNED STRATEGIES TO IMPLEMENT ENERGY NEEDS REDUCTION OBJECTIVE	FULLERTON	CYPRESS	NOCE/ DISTRICT
Lighting Control	Implement lighting control with automatic time control switch, daylighting controls, dimmers, occupancy sensor controls etc. as applicable to make the system comply with the current Title24 requirements.	✓	✓	✓
Roof	Replace the old, aged roof membrane (brown/dark colored asphalt membrane) with high thermal emittance, and high solar reflectance index (SRI) membrane to reduce the heat transfer into the building.	✓	✓	✓
Wall, Roof	Provide additional wall and roof insulation in buildings A & B that comply with Title24 requirements.			✓
Boiler Replacement	Eliminate **gas fired central steam boiler system** with an all-electric boiler system. Consider using heat-pump boilers for new and renovated projects.	✓		
Boiler Replacement	Eliminate **existing gas fired boilers** with an all-electric heating boiler system. Consider using heat-pump boilers for new and renovated projects.		✓	✓
Glazing	Replace single-pane glass windows with double-pane (low-E) glass windows.	✓	✓	✓
HVAC	Replace constant volume air handling units with variable volume air handling units.	✓	✓	
HVAC	Repair or replace the not functional economizer at Air handling units with new ones.	✓	✓	
HVAC	Replace the existing DX split systems serving buildings A and B with high-efficiency systems that include either tying into the existing chilled water system or installing a VRF system.			✓
HVAC	Add Variable Frequency Drive (VFD) to remaining exhaust fans that have yet to receive VFDs.	✓	✓	✓
Other	Install automatic pool cover.		✓	

OBJECTIVE 1.3 CONTINUED

The 2024 EFMP identifies the following planned **renovations**, for which the above solutions should be implemented:

CAMPUS	CURRENT PLANNED	FUTURE PLANNED
Fullerton	• New Lockers & Showers	• Strength lab renovation • Faculty lounge and health center renovation • Math 600 building renovation • Wilshire theater 2100 renovation
Cypress	• Pool Renovation and Repairs • Tech Ed III Health Sciences Renovation • Fine Arts Renovation • Health and Wellness Center Renovation • Central plant upgrades	• Gym II Renovation • Tech Ed II Renovation
NOCE/District	• Boardroom Renovation • Affinity Group Spaces	• Tech Ed II Renovation (Cypress)

All **new projects** should aim to implement net zero energy strategies. The following new projects are planned based on the EFMP:

CAMPUS	CURRENT PLANNED	FUTURE PLANNED
Fullerton	• New Welcome Center	• New STEM Vocational Center • New CDES Lab School building • Demo & new gym 1200 building • New Fine Arts south of Chapman
Cypress		• Aquatics Center • CTE Programs Facilities • Additional Health Science Facilities • Affordable Student Housing • Hospitality, Restaurant, and Culinary Building • Campus Safety and Emergency Ops Center
NOCE/District		• New Mixed-Use Building • Utilize Prior Culinary Space • Dining services

OBJECTIVE 1.3 CONTINUED

INTEGRATED ENERGY MANAGEMENT

Energy need reduction means reducing the amount of energy campus buildings and infrastructure require to operate. Reducing energy needs and optimizing building performance can support more comfortable indoor environments for users, reduce energy consumption and associated energy costs, and lower greenhouse gas emissions associated with global warming.

An Integrated Energy Management Dashboard (IEMD) will allow for a large portfolio of buildings to reduce energy use through targeted improvements based on available utility data. By making qualitative and quantitative data readily available, this IEMD can support NOCCCD building operators and facilities engineers in incorporating energy efficiency and decarbonization goals into renovation projects of all scales. Understanding the level of improvements needed at each building can determine the level of intervention needed and inform a more efficient, impactful capital investment strategy.

This interactive format allows stakeholders to understand the opportunities for greenhouse gas reductions on the building energy demand side.

HOW WAS THE INTEGRATED ENERGY MANAGEMENT DASHBOARD DEVELOPED?

The dashboard and Integrated Energy Management approach were developed through the following process:

01 **DISCOVERY: gather data about building energy use and reporting.**

Process: To start, the team gathered available data – including utilities from ENERGY STAR® Portfolio Manager and FUSION – and conducted a site visit at each campus to meet with facilities staff and assess the overall condition of building envelopes and HVAC systems as well as identify opportunities for energy reduction (ECMs). The site visits included conversations with facilities teams to review building walkthrough observations and discuss how data is currently being used for decision-making and project prioritization.

Results: The Discovery phase revealed that once per year, NOCCCD uses ENERGY STAR® Portfolio Manager, a cloud-based platform that enables reporting, to report its district-wide energy data to CCCCO. However, building-level data is not widely available, more frequent data updates are needed, and reporting is inconsistent across campuses.

ENERGY STAR® PORTFOLIO MANAGER
ENERGY STAR® Portfolio Manager is a free cloud-based platform developed by the US Environmental Protection Agency. For buildings connected to SoCal Gas and Southern Edison, ENERGY STAR® Portfolio Manager can be configured to automatically ingest and display monthly utility data. Currently, only Fullerton utilizes this feature.

OBJECTIVE 1.3 CONTINUED

02 ANALYSIS: analyze data to determine a district-wide baseline for building energy use.

Process: Due to limited availability of building-level energy data, the team used campus total energy consumption and FUSION data for building square footage to calculate a simple energy use intensity (EUI) for each building in the district's portfolio. This analysis helped establish an overall baseline for improvement. The information gathered about the building Envelope and HVAC system help determine the condition of the Envelope and HVAC at the buildings to be either Good, Fair or Poor.

Results: During the Energy Dashboard meetings, campus and district stakeholders considered different ways of incorporating energy analysis into decisions about routine maintenance and future planned projects to support the Chancellor's Office goals. The team also analyzed the District's Facilities Master Plan and aligned the energy needs reduction actions based on upcoming and planned projects.

03 RECOMMENDATIONS: recommend energy conservation measures for each building.

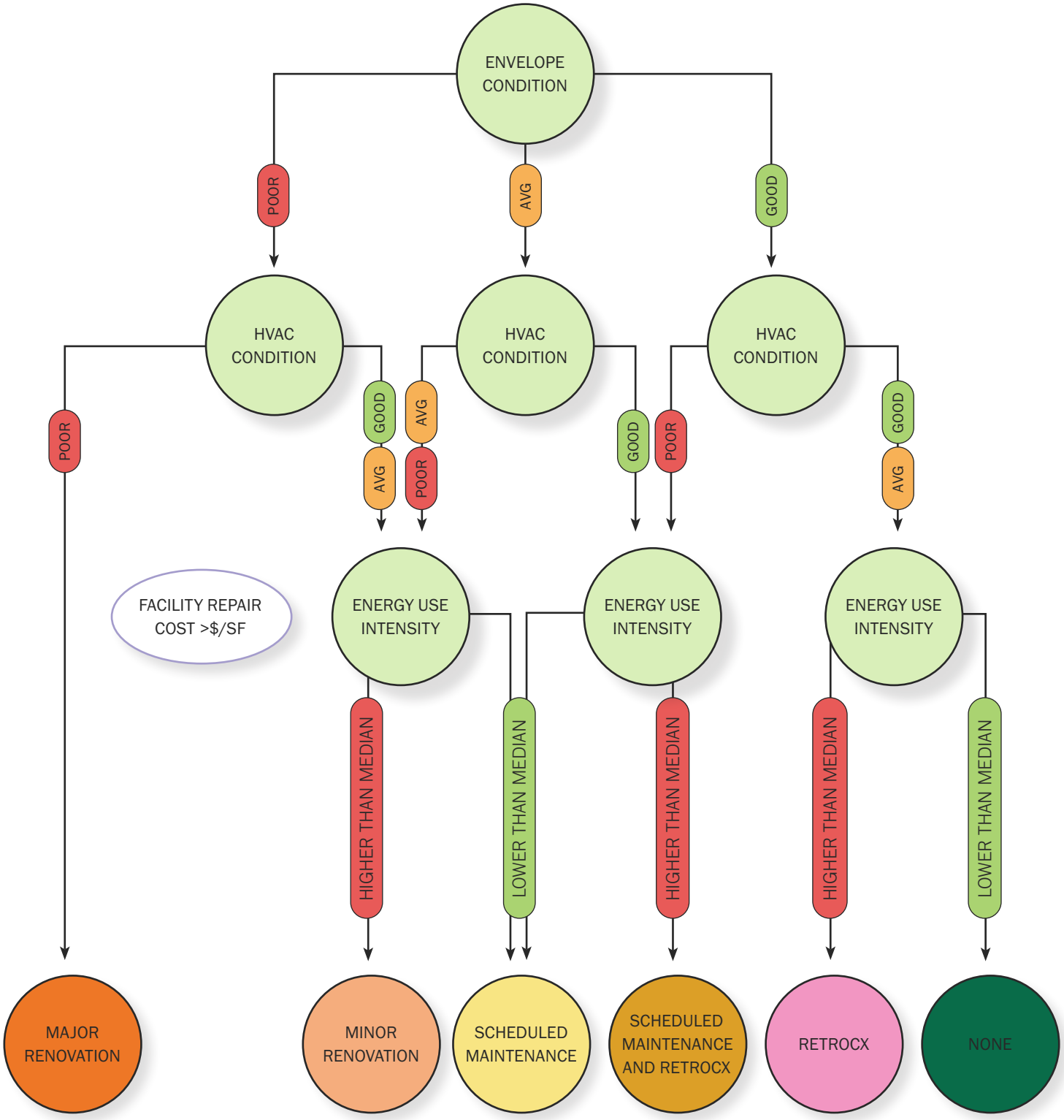
Process: Based on building conditions including envelope condition, HVAC condition, and energy use intensity, the buildings were categorized into six different project scope options to support energy need reduction using a decision tree as shown in Diagram below:

- **Major Renovation**: This includes a comprehensive retrofit that impacts all systems in the building - programming, envelope, lighting and HVAC. These projects represent opportunities for the deepest energy savings. The best candidates for these projects include ones with significant deferred maintenance.
- **Minor Renovation**: This includes projects that have some impact on a major building systems such as HVAC. These projects present opportunities to improve indoor environmental quality and reduce peak cooling/ heating demand.
- **Scheduled Maintenance**: These are projects that address individual equipment needs especially those that are at their end of life.
- **Retrocommissioning**: These projects address building perhaps recently modernized but are not performing optimally. Addressing small component failures such as valves, damper actuators or sensors could improve operational energy performance for these buildings.

Outcomes: The result is a list of categorized building improvements and energy conservation measures for each district building, organized into the Integrated Energy Management Dashboard. This dashboard further aligns with the district's existing process of grouping projects and contains a decision tree aimed at helping drive projects towards the 75% energy reduction target.

OBJECTIVE 1.3 CONTINUED

CAPITAL PROJECT DECISION-MAKING TREE



OBJECTIVE 1.3 CONTINUED

PROPOSED ENERGY CONSERVATION MEASURES

Energy Conservation Measures are design strategies that can be used to reduce building energy use.

Energy Conservation Measures (ECMs) were explored based on the energy analysis, benchmarking, and site walk-throughs. Each ECM was identified based on the building walkthroughs conducted by the DLR Group Engineering team looking at the overall health of a building and their applicable systems and sub-systems (HVAC, envelope, boilers, etc). This information was discussed with NOCCCD and vetted for final selection to be included in ECM recommendations.

Implementation of the recommended ECMs will result in a reduction of energy use and subsequently a reduction in greenhouse gas emissions, either through reduced grid electricity consumption or reduction or elimination of direct combustion on site. Recommended ECMs were applied to individual buildings to help map a path towards the CCCCO NZE and decarbonization goals.

1. **BOILER REPLACEMENT:** Replace existing natural gas fired boilers used for building heating with electric heat pump boilers. The existing natural gas boilers' efficiencies are below a coefficient of performance (COP) of 1 while the heat pump boilers efficiency is in the range of a COP of 2 to 3. The replacement of the natural gas boilers not only reduces the energy consumed but eliminates the natural gas combustion on site. This is a key step towards decarbonization.

2. **BUILDING ENERGY SUBMETERING:** Install submeters at the buildings to monitor electricity, natural gas, and water. By measuring energy usage at the building level, high and low energy intensity buildings can be identified. This will allow waste energy usage to be identified, prioritized, and eliminated.

3. **DAYLIGHT HARVESTING:** Install daylight controls and necessary photocell sensors in spaces with windows to control artificial lighting in multiple dimming zones arranged in relationship to the windows, adjusting each zone to maintain a consistent lighting level throughout the room. When sufficient daylight is available, it can be used to illuminate the room instead of artificial light. This reduces energy consumption used by artificial light and has also been proven to improve cognitive function of occupants.

4. **GLAZING UPGRADE:** Replace existing single glazed windows and frames with thermally broken frames and double-glazed insulated glass units equal to Viracon Solarban® 60 (2) Clear + Clear. Replacing the existing glazing with high efficiency double glazing will reduce cooling and heating energy, reduce building drafts and increase thermal comfort for occupants.

5. **REDUCED LIGHT POWER DENSITY:** Replace existing fluorescent bulb lighting fixtures with LED bulb lighting fixtures. Replacing existing incandescent and/or fluorescent bulb lighting fixtures with LED bulb lighting fixtures which are more efficient will reduce the energy consumption for artificial lighting. In addition, the waste heat from LED bulb technology is reduced from incandescent and fluorescent bulb technology reducing the cooling needed due to waste heat from lighting.

OBJECTIVE 1.3 CONTINUED

6. **ROOF SRI AND INSULATION:** In addition to the existing roof insulation install new rigid insulation to bring the roof insulation value up to current Title 24 requirements. The addition of insulation at the roof will reduce the building heat loss and heat gain through the roof and improve occupant thermal comfort. When replacing roof systems, consider Solar Reflective Index (SRI) specifications or "cool roofs" to improve efficiency.

7. **VAMPIRE LOAD REDUCTION:** Install motion sensing power outlets for each outlet connected to an appliance in the building. Many devices are left powered on during time periods when they are not used. Even when devices are in standby mode small amounts of power are still used. Installing smart power outlets with motion sensors will reduce this "vampire" power consumption.

8. **VARIABLE FREQUENCY DRIVE:** Install variable frequency drive devices on the exhaust fans in the building to adjust the fan speed. Variable frequency drives prevent the waste of energy caused by fans running more than they need to. Installing the devices will allow the fan to meet the actual demand more closely by increasing and decreasing fan power proportionally, rather than being 100% on or off.

9. **WALL INSULATION:** In addition to the existing wall insulation, install new rigid insulation with plywood sheathing equivalent to an insulation value of R-8. The addition of insulation at the walls will reduce the building heat loss and heat gain through the walls and improve occupant thermal comfort.

PROJECT SCOPE TO ACHIEVE ENERGY NEEDS REDUCTION

The Recommended scope categories varied from capital intensive project types such as the major renovation to operational intensive project type such as the retrocommissioning. For each category, an estimated targeted energy reduction goal and estimated cost were assigned.

Any given NOCCCD building may be recommended for one or more of the following project scopes:

CAPITAL ↑ OPERATIONAL

PROJECT SCOPE	GHG REDUCTION	LEVEL OF INVESTMENT	COST PER GHG
Major Renovation/ Modernization	50-60%	>15M	$300/sq ft
Minor Renovation	30%	<15M	$100/sq ft
Scheduled Maintenance	20%	<1M	$20/sq ft
Scheduled Maintenance and Retrocommissioning	30%	<1.25M	$25/sq ft
Retrocommissioning	10%	<250k	$5/sq ft

1.4 OBJECTIVE | DISTRICT FLEET DECARBONIZATION

REDUCE TOTAL CARBON EMISSIONS CAUSED BY FLEET VEHICLES AND MAINTENANCE AND OPERATIONS EQUIPMENT.

DRIVERS

- All campuses already offer EV charging that can support an electrified fleet.
- Converting to an electric vehicle fleet poses additional costs.
- Grounds maintenance currently relies on gasoline equipment.
- CA Advanced Clean Cars II rule requiring all new vehicles sold in California to be zero-emission vehicles (ZEVs) by 2035.
- Automotive Technology coursework. (Fullerton College)

ACTIONS

Short-term (0-2 years):

- FLEET ASSESSMENT: Fullerton College provided a vehicle inventory for this planning effort, conduct a similar assessment of NOCE and Cypress fleet vehicles by 2025. (CCCCO)
- FLEET MANAGEMENT: Establish a vehicle procurement policy for new fleet vehicles that are hybrid, electric, and/or alternatively fueled. (CCCCO)
- Continue to explore through testing and TCO the feasibility and financial practicality of all electric maintenance equipment and fleet.

Mid-term (3-5 years):

- Strive to have at least 50% of new fleet vehicles and maintenance and operations equipment be zero emissions.

Long-term (6-10 years):

- 100% of new fleet vehicles and maintenance and operations equipment is zero emissions.

MEASURE OF SUCCESS

- Increased percentage of campus vehicle fleet and equipment that is all-electric

METRICS | MILESTONES

- 100% of new fleet vehicles and maintenance and operations equipment is zero emissions by 2035.

1.5 OBJECTIVE | RENEWABLE ENERGY SOURCING

SUPPLY DISTRICT ENERGY NEEDS WITH RENEWABLE ENERGY.

DRIVERS

- Construction on Fullerton carport solar project is set to begin in the summer of 2024.
- California is on track to be powered by 100% renewable energy by 2045.
- Challenges funding and approving energy generation projects, including less funding and lengthy approval process (NOCE).

ACTIONS

Short-term (0-2 years):

- BOLD STEP: Execute the proposed SPUR solar power purchase agreement to offset 75% of NOCE and Cypress energy demand with on-site solar generation.
- DEFINE FISCAL AND OPERATIONAL FEASIBILITY: In accordance with existing policies that state "sustainability procedures are only required when fiscally and operationally feasible," establish a clear and concrete definition of "fiscally and operationally feasible" to ensure decision-making that supports long-term sustainability.

Mid-term (3-5 years):

- To achieve district-wide ZNE, consider the following options:
  - Procure renewable energy off-site, ideally within the electricity grid servicing the District.
  - Explore participating in community solar projects offered by utility companies.

Long-term (6-10 years):

- Evaluate the percentage of fuel mix from renewables and reassess the next steps for procuring additional renewable energy systems.

MEASURE OF SUCCESS

- Percentage of fuel mix from renewables.

METRICS | MILESTONES

- Fuel mix from renewables:
  - 0% renewables. (2019 baseline)
  - 75% by 2030. (Per Chancellor's Office Goal)
  - 100% by 2035. (Per Chancellor's Office Goal)

SUSTAINABILITY IN ACTION

- Fullerton is set to break ground on a carport solar project in 2024.

1.6 OBJECTIVE | COMMUTING-RELATED EMISSIONS

REDUCE CARBON EMISSIONS DUE TO COMMUTING.

DRIVERS

- Many students, staff, and faculty on all campuses commute from far away.
- Some students are unaware of existing transit options and supports.
- Free transit passes do not apply to all regional transit providers.
- Campus context and entrances pose safety risks for bikes and pedestrians.

ACTIONS

Short-term (0-2 years):

- Establish a baseline for scope 3 emissions from a commuter footprint survey.
- Track impact of green transportation programs on commuter carbon footprint.
- Promote accessible shared transport methods. (Per Chancellor's Office Goal)
- Conduct pedestrian and bicycle access improvements. (Per Chancellor's Office Goal)
- Provide preferential parking or other incentives for fuel efficient vehicles.
- Provide Level 2 or 3 EV infrastructure for commuters.

Mid-term (3-5 years):

- Create a green parking permit system. (Per Chancellor's Office Goal)
- Explore ways to encourage carpooling.
- Create a bicycle-sharing program.

Long-term (6-10 years):

- Implement smart parking system to identify the number of personal vehicles arriving to the campus per day.
- Provide incentives or programs to encourage employees to live closer to campus.

MEASURE OF SUCCESS

- Percentage reduction of commuter carbon emissions.

METRICS | MILESTONES

- Metrics in progress.

SUSTAINABILITY IN ACTION

- Fullerton, Cypress, and NOCE all offer electric vehicle charging on-site.
- NOCE offers carpooling incentives.

2. Ecological Balance

GOAL | REDUCE NOCCCD'S IMPACT ON LOCAL ECOSYSTEMS AND WATER SYSTEMS, BOTH ON AND BEYOND CAMPUS.

RETURN TO SAP TOC

WHAT IS THE *ECOLOGICAL BALANCE* IMPACT AREA?

Ecological balance is the ability of ecosystems and their inhabitants, both human and non-human, to maintain balance, be healthy, and thrive for generations to come.

WHAT DOES THIS IMPACT AREA INCLUDE?

- Water Conservation
- Water Sourcing
- Ecology and Biodiversity

An ecosystem is a biological community of interacting organisms, including plants and animals, and their physical environment. While humans often perceive themselves as separate from ecosystems, we are integrated parts of ecosystems, and our actions impact their well-being. Creating balance requires stewardship and conscious consumption of resources, so that both human and ecological needs can be met.

NOCCCD'S IMPACT ON LOCAL ECOSYSTEMS AND WATER SYSTEMS

Regional drought and water scarcity, worsened by climate change, make water conservation even more critical.

Drought in California negatively impacts food production and raises the price of water. Over the past two decades, California has experienced periods of prolonged drought and the driest year on record. Climate change is predicted to increase the frequency and severity of droughts in Orange County, placing additional stress on local water systems. The District's water providers source their water primarily from groundwater basins, supplemented by imported water from the Metropolitan Water District. Increased drought could create reliance on imported water, worsening ecological consequences.

NOCCCD's operations have broader impacts on ecological systems like regional watersheds and habitats.

Water Conservation: While NOCCCD must consume water to meet the needs of its campus communities, we can lessen the impacts of water consumption on surrounding ecosystems. The first step is **benchmarking and reducing the District's use of potable water** – safe drinking water that is treated to meet state and federal standards – in accordance with the California Community Colleges Chancellor's Office Climate Action and Sustainability Goals. Currently, the District relies on potable water for all needs, including irrigation, sinks, toilets, and other indoor plumbing.

Stormwater Management: It's also important to consider stormwater management. Stormwater runoff occurs when precipitation flows over the ground. Development increases the percentage of impervious surfaces as buildings, sidewalks, and streets prevent stormwater from naturally soaking into the ground. Without green infrastructure, stormwater carrying toxic pollutants can flow directly into the ocean, contaminating precious local water supplies and causing harm to ecosystems. Unmanaged stormwater can also lead to campus flooding and damage.

Landscape Management, Ecology, and Biodiversity: As a large land-holder, NOCCCD's decisions about how our land is developed, maintained, and conserved can support biodiversity – a diverse range of plant and animal species. The District is already committed to implementing ecologically responsible pest management, identifying areas of biodiversity on District land, and interacting native species. Additional practices like conscious landscape maintenance and conservation of open space can reduce water use and support thriving ecosystems that co-exist on district-owned land. NOCCCD campuses have an opportunity to lead the way in protecting wildlife and testing innovative strategies for re-wilding their footprint.

RESPONSIBLE DEPARTMENTS

District: Facilities
Cypress: Maintenance and Operations
Fullerton: Maintenance and Operations
NOCE: Facilities

CHANCELLOR'S OFFICE GOALS ALIGNMENT

Water:
Districts and colleges should reduce potable water usage from baseline level by 25% by 2030 and by 50% by 2035.

The following projects identified in the 2024 Educational and Facilities Master Plan related to landscape, grounds, and open space provide opportunities to implement the strategies outlined in this section:

CAMPUS	CURRENT PLANNED	FUTURE PLANNED
Fullerton	• Demolition of Buildings 1100, 1300, and eventually 2000 • Expanded Parking • New Lockers & Showers & Parking Improvements • Surface Parking Expansion • Integrated Parking	• Pilot projects for campus-wide enhancements • North campus spine • New mobility hubs • Demo & new gym 1200 building
Cypress	• Softball Field Renovation • SEM building 3 demolition	• LLRC exterior garden • Aquatics Center • Athletic Field and Track Enhancement
NOCE/District	• Landscape Enhancements • Accessible Entrance Path Enhancements • Outdoor Patio Cover	• Campus Connection from West Lot

2.1 OBJECTIVE | WATER CONSERVATION

DECREASE WATER USE (POTABLE AND NON-POTABLE).

DRIVERS

- NOCCCD is located in an area identified as high risk by the Water Atlas, including extremely high coastal eutrophication risk and extremely high water stress and water depletion.
- Large campuses require lots of water to operate.
- Lack of non-potable water supply leads to reliance on potable water for all uses.
- Some water infrastructure is outdated / inefficient.
- Retrofit water conservation measures can cost more in the short-term

ACTIONS

Short-term (0-2 years):

- BENCHMARKING: Benchmark existing water usage, including the following steps:
  - Identify local peer institutions in similar climate/ conditions that could be used to benchmark water use.
  - Use ENERGY STAR portfolio manager to benchmark existing water usage against identified institutions.

Mid-term (3-5 years):

- METERING: At Cypress College and NOCE, install water meters across all three campuses, including separate meters for landscape irrigation systems of 2,500 square feet or greater (per Chancellor's Office Goal). Fullerton already has a line-by-line metering system.
- NEW CONSTRUCTION AND RENOVATION: For all renovations and new construction, comply with water-related LEED requirements for indoor water use, outdoor water use, and metering.
- INFRASTRUCTURE REPLACEMENT: Assess existing water pipe infrastructure across campuses to identify potential aging infrastructure prone to leaks. Develop a long-term, ongoing replacement plan for aging/prone to fail pipe network/infrastructure, including strategic replacements around buildings identified for renovations or new construction.
- INDOOR WATER USE:
  - FIXTURE REPLACEMENT PLAN: Assess existing buildings to identify inefficient water fixtures (e.g. toilets, sinks, showers, dishwashers, washers, etc.). Develop a replacement plan to install low-flow fixtures.
  - PROACTIVE MAINTENANCE: Develop ongoing maintenance and replacement plan for all water infrastructure to proactively prevent leaks and degraded infrastructure.

Long-term (6-10 years):

- OUTDOOR WATER USE:
  - Install rainwater and moisture sensors to override irrigation system during and after rain events.
  - Replace all remaining spray irrigation systems with more efficient drip irrigation.
  - Seek out local experts with experience in WaterSense landscape design services to ensure irrigated turf grass does not exceed 50% of the landscaped areas on campus.
- BUILDING OPERATIONS & MAINTENANCE: Align operation of existing buildings in accordance with LEED Operations & Maintenance targets and guidelines. (Per Chancellor's Office Goal)

MEASURE OF SUCCESS

- Decrease in gallons of annual potable water use per weighted campus user compared to 2019 baseline.

METRICS | MILESTONES

Reduction in gallons of annual potable water use per weighted campus user compared to 2019 baseline.

- 25% by 2030
- 50% by 2035

2.2 OBJECTIVE | SUSTAINABLE WATER SOURCING

REDUCE THE IMPACT OF NOCCCD'S WATER MANAGEMENT PRACTICES ON LOCAL, REGIONAL, AND NATIONAL ECOSYSTEMS.

DRIVERS

- Climate change is predicted to increase extreme precipitation events and associated flooding.
- Stormwater is historically treated as a waste product and our built environment was designed to move rainwater off-site as quickly as possible; NOCCCD campuses do not have infrastructure in place to capture stormwater.
- Longstanding drought conditions place greater stress on the water table.
- Areas with impervious surfaces, i.e. parking lots, add pollution into the wastewater system.

ACTIONS

Short-term (0-2 years):

- Perform a study to explore the feasibility of stormwater reuse and on-site stormwater retention (Stars OP 22). Examples include rainwater harvesting, downspout disconnection, rain gardens, bioswales, permeable pavements, green streets and alleys, green roofs, and urban tree canopy.
- Establish a policy to regularly test if passive and active systems are working to filter pollutants from stormwater.
- For all new construction and major renovations, implement LEED best practices for stormwater filtration and retention.
- Design and install educational signage at existing stormwater areas to encourage conscious behaviors.

Mid-term (3-5 years):

- Update district-wide design standards to incorporate feasible solutions for stormwater reuse and retention in all new construction and major renovation projects.
- Identify and implement opportunities to replace impervious surfaces with porous and heat-reflecting materials.
- Explore opportunities for cooling tower and evaporative condenser water re-use.
- COOLING TOWER AND CONDENSER EVALUATION: Conduct a one-time potable water analysis, in order to optimize cooling tower cycles. This will conserve water used for cooling tower makeup while controlling microbes, corrosion, and scale in the condenser water system.
- PILOT PROJECT: Design and construct an exemplary pilot project on one campus that showcases stormwater storage and reuse.

Long-term (6-10 years):

- In conjunction with construction of future campus housing, evaluate potential to re-use greywater for toilet flushing and/or irrigation.
- Collaborate with other community colleges and educational institutions in the County to lobby for a greywater system.
- Implement successful strategies from pilot project in other major capital projects.
- Limit stormwater runoff and discharge to predevelopment levels for temperature, rate, volume and duration of flow through green infrastructure and low-impact development for new buildings and major modifications by 2035.

MEASURE OF SUCCESS

- Reduction in gallons of annual potable water use per weighted campus user compared to 2019 baseline.

METRICS | MILESTONES

Reduction in gallons of annual potable water use per weighted campus user compared to 2019 baseline.

- 25% by 2030
- 50% by 2035

SUSTAINABILITY IN ACTION

- Fullerton has reduced water use by 50 million gallons per year since 2011.

2.3 OBJECTIVE | ECOLOGY AND BIODIVERSITY

SUPPORT THRIVING ECOLOGIES/ECOSYSTEMS ON AND AROUND CAMPUSES.

DRIVERS

- The District has already committed to assess and maintain district-owned areas of biodiversity importance.
- NOCCCD is located in an area identified by the Water Atlas as facing extremely high coastal eutrophication risk, which could be impacted by the use of fertilizers.
- Existing approved plant lists do not identify plant species by ability to support pollinators or endangered animal species.
- Existing grounds maintenance practices do not specifically highlight support for wildlife and biodiversity.

ACTIONS

Short-term (0-2 years):

- DISTRICT-WIDE LANDSCAPE GUIDELINES: Based on Cypress's existing Landscape Guidelines, develop and share a district-wide approved landscape planting list that prioritizes hardy, native, indigenous, low-water consumptive, drought resistant, and low-maintenance species.
- In accordance with Cypress's Landscape Guidelines, adopt a Variance Request process across all campuses for proposed additions to the approved plant list.
- PLANTS FOR POLLINATORS AND ENDANGERED SPECIES: Work with the Horticulture Departments across campuses to identify and prioritize species that provide habitat for pollinators, wildlife, and endangered species. Update the district-wide landscape guidelines to better incorporate and highlight these species. (See California Native Plant Society, Orange County pollinator plant list, and Orange County bird-friendly plant list.)
- Conduct an assessment to identify:
  - Endangered and vulnerable species with habitats on land owned or managed by the institution; AND/OR
  - Areas of biodiversity importance on land owned or managed by institution.

Mid-term (3-5 years):

- ORGANIC FERTILIZERS: Replace 50% of synthetic fertilizers with animal manure, which reduces nitrogen and phosphorous runoff.
- CONSCIOUS PEST MANAGEMENT: Conduct audits of pest management practices at each campus to ensure compliance with District-wide commitment to use organic products and implement an Integrated Pest Management System. Create a replacement/improvement plan based on findings.
- TREE REMOVAL PROTOCOL: Establish a formal tree removal protocol to ensure that all other options are investigated before a tree is approved to be removed. Trees support carbon sequestration, air filtration, stormwater filtration and uptake, shade, and wildlife habitat.

OBJECTIVE 2.3 CONTINUED

Long-term (6-10 years):

- GROUNDS MAINTENANCE ENGAGEMENT: Consult with Campus Grounds personnel at each campus annually to review lessons learned and performance of approved species. Update district-wide approved plant list accordingly.
- SPECIES PROTECTION: Adopt district-wide landscape maintenance practices that protect species living on campuses and comply with state regulations for wildlife protection. Consider strategies outlined in this document. Conduct annual training with grounds maintenance staff to reinforce these practices.
- ORGANIC FERTILIZERS: To avoid contribution of NOCCCD to the region's coastal eutrophication, replace 100% of synthetic fertilizers with animal manure, which reduces nitrogen and phosphorous runoff.
- RE-WILD UNDEVELOPED AREAS:
  - TURF REPLACEMENT: At Cypress and Fullerton, identify opportunities for turf replacement with native, drought-tolerant groundcover and/or plantings. This supports water reduction goals and provides better foraging conditions for wildlife.
  - EXPANSION OF WILD AREAS: Building on the District's commitment to assess and maintain district-owned areas of biodiversity importance, identify opportunities to expand existing district-owned habitats on underutilized land, prioritizing more connected habitat corridors.
  - Align site design and planning across the District with biodiversity goals.
  - Advocate for opportunities to expand habitat corridors in areas around campuses.

MEASURE OF SUCCESS

- Percentage of district land reserved for biodiversity importance and protected areas.

METRICS | MILESTONES

- Metrics in progress.

SUSTAINABILITY IN ACTION

- Fullerton's landscape guidelines prioritize native, drought-tolerant, low-water consumptive, and hardy species.
- In AP 3580 Environmental Sustainability, the District committed to assess and maintain district-owned areas of biodiversity importance.

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3. Disrupting the Culture of Consumption

GOAL | SUPPORT A CULTURAL SHIFT ACROSS CAMPUSES AWAY FROM WASTEFUL USE OF RESOURCES TOWARD CONSCIOUS PROCUREMENT, CONSUMPTION, AND DISPOSAL.

RETURN TO SAP TOC

WHAT IS THE *DISRUPTING THE CULTURE OF CONSUMPTION* IMPACT AREA?

Disrupting the culture of consumption requires NOCCCD to reassess decisions regarding the purchasing and use of products and ensure all consumption aligns with the district's sustainability goals.

WHAT DOES THIS IMPACT AREA INCLUDE?

- Minimize waste generated across all NOCCCD campuses
- Align day-to-day decisions with organizational goals
- Reduce overall consumption of unnecessary goods and services
- Educate the NOCCCD community to support a cultural shift towards circularity and reuse

The current culture of consumption can have serious environmental impacts through the depletion of natural resources and increased waste production. Under the strategic direction of "Stewardship of Resources" from the 2023 EFMP, NOCCCD strives to make more thoughtful and intentional decisions regarding buying and using products - as a statement of values. The District seeks to meet CCCCO goals through the prioritization of conscious consumerism and procurement of goods and services through campus-level operations.

ACHIEVING ZERO WASTE TO LANDFILL

The California Community College Chancellor's Office Sustainability Framework encourages colleges to achieve zero waste to landfill, conduct a circularity analysis, and reduce total material consumption compared to the benchmark by 10% by 2030. The District can leverage CalRecycle for grants and other educational resources to reach this ambitious goal. The mission of CalRecycle is to protect California's environment and climate for the health and prosperity of future generations through the reduction, reuse and recycling of California resources, environmental education, disaster recovery and the transition from a disposable to a fully circular economy.

In **OP 11: Sustainable Procurement**, AASHE STARS recommends applying sustainability criteria (refuse, reuse, reduce, recycle) when making procurement decisions. An institution must share its written policies, guidelines, or directives that seek to support sustainable purchasing across multiple commodity categories.

RESPONSIBLE DEPARTMENTS

District: Director of Risk Management, Technology and Engineering Team, Purchasing Department
Cypress: Campus Capital Projects, Maintenance and Operations, District Risk Management
Fullerton: Campus Capital Projects, Maintenance and Operations, Director of Campus Safety, Emergency Management
NOCE: Instructional Technology Services, Instructional Programs

CHANCELLOR'S OFFICE GOALS ALIGNMENT

Waste:

By 2035, strive to achieve zero waste to landfill by increasing circularity and decreasing consumption.

3.1 OBJECTIVE | WASTE REDUCTION/MINIMIZATION

IN ACCORDANCE WITH EXISTING NOCCCD COMMITMENTS, FURTHER MINIMIZE THE AMOUNT OF WASTE GENERATED ACROSS CAMPUSES.

DRIVERS

- Ineffective waste management across campuses.
- Haulers do not provide waste data, making it challenging to track and reduce waste.
- High amount of single-use plastics and items offered across campuses.
- Other sustainability priorities can lead to more waste: unintended consequences.
- Limited infrastructure to support reusable items.

ACTIONS

Short-term (0-2 years):

- WASTE AUDIT (by 2025): In support of the California Community Colleges Chancellor's Office and CalRecycle recommendations, conduct a district-wide waste audit including:
  - Conduct waste categorization assessment.
  - Benchmark and comply with Title 14, Division 2, Chapter 5 (Beverage Container Recycling and Litter Reduction Act).
  - Benchmark and comply with Title 14, CCR Division 7.
  - Conduct an AB 341 compliance assessment.
  - Centralize reporting for waste and resource recovery.
  - Conduct total material consumption benchmark.
  - It has been noted that lack of data from existing haulers poses an obstacle to an audit. See strategies under Objective 5.2 for potential ways to address this.

Mid-term (3-5 years):

- ESTABLISH REDUCTION STRATEGIES: Based on the waste audit, identify the primary sources of waste generation and contamination at each campus. Use this information to target reduction efforts and prioritize diversion strategies to reduce total material consumption compared to the benchmark by 10% by 2030.
  - Determine if enough compostable materials are being generated to support composting at each campus.
  - Develop targeted waste management strategies based on the campus activities, programs, and other sources generating unique types of waste (e.g. cosmetology, automotive programs).
- CENTRALIZED REPORTING: Establish a centralized reporting structure for waste and resource recovery, including a designated district-wide staff member responsible for coordinating with designated representatives at each campus.
- WASTE REDUCTION STRATEGIES: Implement waste reduction policies, such as:
  - Serve food using reusable dishes and cutlery in campus cafeterias.
  - Provide incentives or discounts to students who bring reusable containers for cafeteria food serving.
  - Prioritize reusable containers and cutlery for catering on campus.
  - Provide water bottle filling stations in all buildings.
  - Encourage or require paperless courses.
  - Expand paperless processes to all departments.

Long-term (6-10 years):

- INFRASTRUCTURE TO SUPPORT RE-USABLE FOOD SERVICE: As part of the Educational and Facilities Master Plan process, consider providing infrastructure in food service areas at all three campuses to support the washing, drying, and storage of re-usable dishes and cutlery.

MEASURE OF SUCCESS

- Percentage reduction of total amount of waste generated per weighted campus user compared to a 2025 baseline.

METRICS | MILESTONES

- Reduce the total material consumption compared to the 2025 baseline by:
  - 10% by 2030.
  - 25% by 2035.

3.2 OBJECTIVE | WASTE DIVERSION

INCREASE THE PERCENTAGE OF WASTE DIVERTED FROM LANDFILLS.

DRIVERS

- There are limited recycling and composting options on campuses.
- There is a lack of haulers for recyclables, and no market for recycling.
- Food waste is not being diverted from landfills, except for in NOCE culinary program.
- Waste diversion efforts require additional staff and training, which could create costs.
- There are no existing policies and practices for re-use of materials.
- Future building demolition projects outlined in the EFMP provide an opportunity for construction waste diversion.

ACTIONS

Short-term (0-2 years):

- RECYCLING
  - SERVICE PROVIDERS: Confirm that district waste hauler is unable/unwilling to provide accurate waste data in accordance with Administrative Procedure 3580: Environmental Sustainability section 2.7.1. If data cannot be provided, engage procurement to re-negotiate the contract(s) with the existing hauler and/or consider identifying alternative waste hauler(s) to ensure the provision of waste data to NOCCCD.
  - RECYCLING POLICY: Based on identification of viable haulers, adopt a mandatory recycling policy across the district that clearly defines expected practices and responsible and accountable parties at each campus and district-wide.
  - BINS: Increase the amount of recycling bins across all campuses, including:
    - Place paper recycling bins in all campus offices and workspaces.
    - Increase exterior recycling bins.
  - HIRE WASTE SORTERS: Invest hiring and training of appropriate waste sorter(s) at each campus upon initiation of contract with recycling service provider.
- ORGANIC WASTE
  - COMPOSTING OPTIONS: If food waste/organic waste is identified as a major source of waste in the waste audit, identify options for composting food waste district-wide. Consider:
    - Collaboration with on-campus programs to incorporate composting efforts into those programs.
    - On-site composting managed by dedicated campus staff members.
    - Hauler that provides composting service.
    - Donation of food waste/organic waste to off-campus partner organizations who could benefit from that waste.
  - MANDATORY COMPOSTING PROGRAM: Adopt a mandatory, district-wide composting policy based on the evaluated options.
  - DONATE UNUSED FOOD: In accordance with State law Senate Bill 1383, effective January 1, 2024, on days when on-site food facilities are operational, donate all edible food at the end of each day to campus food bank.

3.2 ACTIONS CONTINUED

Mid-term (3-5 years):

- CONSTRUCTION AND DEMOLITION WASTE: Ensure that all demolitions, renovations, and new construction adhere to LEED standards for construction and demolition waste management. These include:
  - Identify strategies to reduce the generation of waste during project design and construction.
  - Establish waste diversion goals for the project by identifying the materials (both structural and nonstructural) targeted for diversion.
  - Describe the diversion strategies planned for the project. Describe where materials will be taken including expected diversion rates for each material.
- CONTRACTORS: Prioritize contractors that have experience and expertise implementing LEED Gold standards for construction and demolition waste, including appropriate tracking and metrics for construction waste.
- PRIORITIZE BUILDING RE-USE: As part of capital planning decision-making procedures, prioritize renovations when possible instead of new buildings to reduce material waste, limit new materials consumed during construction, and minimize additional embodied carbon.
- MATERIAL RE-USE: Perform inventories of all buildings planned to be demolished or renovated to identify opportunities for material re-use.
- MATERIAL SHARING: Engage the Chancellor's Office, other Southern California Community Colleges (AND OUTSIDE PARTNERS?) to establish a shared materials depot to collect and salvage/re-use building materials resulting from demolition/deconstruction in other Community College construction projects.
- PURPOSE BEFORE SURPLUS: As part of the design process for renovations and new buildings, incorporate intentional design strategies to enable design for disassembly and adaptability, design that reduces waste by aligning with material units, right-sizing, and other best practices for efficient materials use and reduction.

Long Term (6-10 years):

- DURABLE GOODS
  - RESOURCE RECOVERY CENTER: Establish a "Buy Nothing" comprehensive durable goods sharing/donation program in lieu of disposal to landfill. Consider centers, bins, and/or physical locations at each campus where community members, students, staff, and faculty can donate and re-use unneeded items.
  - SURPLUS PROGRAM: Develop district-wide mechanism/program to upcycle surplus district property, like clothing, office supplies, and electronics, that are no longer needed by the institution. Provide these goods at low or no cost to students, faculty, and staff in need. Consider:
    - Online platform to list surplus goods
    - In-person locations on each campus to pick up listed items (see Resource Recovery Center above).
    - Donate items that are not purchased or claimed by students and staff after a certain period.
  - BOARD POLICY: Adopt a board policy regarding the disposal of surplus personal property to ensure diversion of these items from landfills.

MEASURE OF SUCCESS

- Percentage of total waste generated that is diverted from landfills, including:
  - Compost.
  - Recycling.
  - Donated or Re-used.

METRICS | MILESTONES

- Strive to achieve zero waste to landfill by reducing total material consumption by:
  - 10% by 2030.
  - 25% by 2035.

SUSTAINABILITY IN ACTION

- Paper and cardboard are segregated on the Fullerton campus.
- The NOCE culinary program donates food waste to a pig.
- Some campuses have adopted practices that extend the life of equipment, such as soft water running through appliances.

3.3 OBJECTIVE | SUSTAINABLE PURCHASING AND PROCUREMENT

ALIGN PURCHASING DECISIONS WITH ORGANIZATIONAL GOALS TO SUPPORT WASTE MINIMIZATION, DIVERSION, AND ENVIRONMENTAL AND SOCIAL RESPONSIBILITY.

DRIVERS

- High amount of single-use plastics and items offered across campuses.
- Contract challenges with outside food vendors limit compliance with waste reduction goals.
- Some coursework priorities can generate hard to recycle waste: unintended consequences.

ACTIONS

Short-term (0-2 years):

- Mandatory PROCUREMENT EDUCATION: Clearly communicate campus waste goals and measures throughout the procurement process.
  - For California's public entities, Environmentally Preferable Purchasing (EPP) is the procurement of goods and services that have a reduced impact on human health and the environment as compared to other goods and services serving the same purpose (Public Contract Code §12400-12404). In simple terms, EPP means "buying green."
  - Education, like this training program, can assist procurement officials by introducing the criteria that can be used while purchasing goods and services to increase EPP within a department.
  - The Department of General Services, Procurement Division, EPP Program created the DGS EPP Recommended Ecolabels List, aiming to support state departments in their procurement of environmentally preferable commodities.

Mid-term (3-5 years):

- ESG-COMPLIANT SUPPLIERS: Prioritize working with environmental, social, and governance (ESG) compliant suppliers of all goods purchased across the district.
  - Perform a district-wide audit of existing suppliers to determine the level of ESG compliance.
  - Develop a district-wide list of preferred ESG compliant suppliers across all campuses.
  - Work with all three campuses to identify opportunities to leverage the preferred list of suppliers and increase the percentage of goods purchased from ESG compliant suppliers.
  - By 2050 campuses procure goods from the preferred list of suppliers unless no alternative for a given good/supply is available.
- ETHICAL WASTE SERVICE PROVIDER STANDARDS: Establish minimum standards and open price proposals only from those waste service providers meeting those standards. Consider priorities such as diversion from landfill and incineration, price, qualifications and experience, services proposed, local jobs, and local economic development.
- WASTE SERVICE PROVIDER CONSIDERATIONS: Consider requirements for green certification(s) and prior experience of waste service providers for all three campuses, as it relates to:
  - Recycling services.
  - Full range of organics collection and processing (including yard waste, food scraps and food soiled paper).
  - Reuse and recycling of bulky items.
  - Hazardous waste.
  - Education and outreach.
  - Providers who develop campus resource recovery centers, to make it easier to reuse, recycle and compost products (see Surplus Program below).
  - Incentives in rates to reduce waste and reuse, recycle and compost more.
- SINGLE-USE PLASTIC REDUCTION: Develop strategy(ies) to update existing purchasing policy to reduce and/or eliminate single-use plastics.
  - Collaborate with local peer institutions to understand their best practices and suppliers that support removal of single-use plastics. For example: Cerritos CCD Break Free From Plastic resolution and UCLA policy 809.
  - Sign the Break Free From Plastic Campus Pledge that is supported by peer institutions across the country.

3.3 ACTIONS CONTINUED

Long-term (6-10 years):

- FOOD CONTRACTORS: Update food service contracts to include reduction or removal of single-use plastics procurement of local, ethical, and sustainable food options. Ensure that all vendors meet these requirements.
- BUILDING MATERIALS: Prioritize the specification of materials that can be end of life options.

MEASURE OF SUCCESS

- Percentage increase of purchases made (in dollars) which are ESG Compliant.
- Percentage decrease in plastic consumption measured by waste sorting data.

METRICS | MILESTONES

- Metrics in progress.

SUSTAINABILITY IN ACTION

- In AP 3580 Environmental Sustainability, NOCCCD has committed to purchasing "socially and environmentally responsive low-energy electronic products; cleaning and janitorial products that meet multi-criteria sustainability standards; and office paper with post-consumer recycled content, agricultural residue, and/or Forest Stewardship Council (FSC) certified content. (AP 3580 Environmental Sustainability)."
- AP 3580 Environmental Sustainability also outlines commitments to sustainable procurement in food and dining, including purchasing sustainable, ethical, plant-based options and reducing food waste and single-use plastics.

3.4 OBJECTIVE | WASTE EDUCATION AND AWARENESS

EDUCATE STAKEHOLDERS ACROSS THE WASTE STREAM TO SUPPORT A CULTURAL SHIFT TOWARDS REDUCTION AND DIVERSION.

DRIVERS

- Students, staff, and faculty asked for more recycling and composting options; campus community members want to participate in more sustainable waste practices.
- Other sustainability priorities can lead to more waste and unintended consequences.

ACTIONS

Short-term (0-2 years):

- STAFF AND FACULTY: Establish change management practices for teaching staff and faculty to support students through the transition to diversion and separation of waste, including best practices and standardized explanations for:
  - Paperless courses.
  - Digital signage.
- INTERDEPARTMENTAL COORDINATION: Facilitate conversations across departments responsible for the impact areas in this plan to investigate the potential waste outcomes of other sustainability efforts and avoid unintended consequences (e.g. we heard that LED lights need to be replaced more often, generating more waste. Or low-flow toilets can lead to faster degradation of plumbing infrastructure).
- GROUNDS MAINTENANCE: Provide training on proper diversion of organic materials generated through landscape maintenance.

Mid-term (3-5 years):

- PROCUREMENT: Establish a clear purchasing system, policies, and practices to ensure all those purchasing goods are adhering to the District's goals for environmentally and socially conscious procurement. See procurement section.
- FACILITIES MANAGEMENT AND CONSTRUCTION PROJECT MANAGERS:
  - Training on expectations for LEED Gold construction and demolition waste requirements to manage and monitor contractors are meeting these requirements.
  - Monitoring and auditing janitorial teams to ensure compliance with waste sorting and disposal.

Long-term (6-10 years):

- BEHAVIOR CHANGE: Educate students about new waste streams and waste reduction.
  - Establish consistent signage to educate campus users on proper waste separation practices including recycling, post-consumer composting.
  - Communication campaigns via email and social media.
  - Include education about recycling and composting in orientation.
- BOARD OF TRUSTEES: Advocate with the State Chancellor's Office to leverage shared buying power of California Community Colleges for regional and state-wide recycling infrastructure, haulers, and circular economy opportunities for materials and waste.

MEASURE OF SUCCESS

- Total instances of waste related content included in communications.

METRICS | MILESTONES

- Metrics in progress.

4. Climate and Community Resilience

GOAL | PREPARE THE CAMPUSES TO REDUCE THE IMPACT OF CLIMATE CHANGE IN BOTH EMERGENCY AND NON-EMERGENCY SITUATIONS.

RETURN TO SAP TOC

WHAT IS THE *CLIMATE AND COMMUNITY RESILIENCE* IMPACT AREA?

Resilience is the capacity of individuals, communities, businesses, and organizations to withstand, recover, adapt, and thrive no matter the chronic and acute climate and man-made stressors they experience.

WHAT DOES THIS IMPACT AREA INCLUDE?

- Infrastructure Resilience
- Emergency Management
- Continuity of Learning and Services
- Community Support
- Campus-Community Connection

Effective resilience planning is multidimensional; it addresses the impacts of potential climate risks on physical infrastructure, ecological systems, economic systems, social and governance systems, and human health and well-being. Responses require coordination across institutional, municipal, state, utility, and community leaders to truly be prepared for potential acute disasters and chronic climate stressors.

The first step in resilience planning is identifying potential vulnerabilities. This plan uses Second Nature's Campus Evaluation of Resilience Dimensions to assess the district-wide baseline for a variety of resilience topics. Because resilience stretches across disciplines, some topics are addressed in other impact areas. The Climate and Community Resilience impact area focuses on preparing campus infrastructure and communications to support both campuses and surrounding communities during acute and chronic climate-related impacts.

NOCCCD has already committed to facilities improvements that support resilience. The 2023 Educational and Facilities Master Plan directs the creation of accessible and resilient facilities. Campus environments can also support critical social connection and build strong emotional and community resilience, shaping how we rebound during and after unexpected events. Intentional planning can support the ability of buildings, sites, individuals, and communities to respond to, withstand, and recover from stressful or adverse situations.

Resilience is rooted in identifying your vulnerabilities against climatic or man-made disruptions. How can you create a clear plan of action for NOCCCD's continuity of operations? What might be the economic impacts of a disruption and what do you need to plan to ensure economic vitality when faced with unexpected events? Community colleges can play a meaningful role in addressing individual resilience by offering support to students, faculty and staff during stressful situations.

RESILIENCE IN THE FACE OF CLIMATE CHANGE

Climate change is predicted to drive increased acute and chronic impacts that will affect NOCCCD and its communities in Southern California. Impacts include more frequent and prolonged drought, more frequent extreme heat days, increased wildfires that create air pollution, and flooding risk. NOCCCD must prepare its infrastructure and operations to continue delivering on its educational mission in the face of these risks.

Resilience is deeply connected to basic needs and equity; research shows that communities experiencing existing vulnerabilities may face greater impacts from climate-related hazards. NOCCCD serves communities identified by the US Climate Vulnerability Index as experiencing high exposure to toxic air pollution, socioeconomic insecurity, and challenges with access to health care services.

RESPONSIBLE DEPARTMENTS

District: Facilities, Emergency Management
Cypress: Campus Capital Projects, Maintenance and Operations, Director of Campus Safety, Emergency Management
Fullerton: Campus Capital Projects, Maintenance and Operations, Director of Campus Safety, Emergency Management
NOCE: Campus Safety

CHANCELLOR'S OFFICE GOALS ALIGNMENT

Analysis of Climate Change Impacts:
A comprehensive analysis of climate change and environmental risks facing each district is identified as one of the Chancellor's Office focus areas listed under Resources and Tools for Campus Sustainability.

4.1 OBJECTIVE | INFRASTRUCTURE RESILIENCE

PREPARE CAMPUS BUILDINGS AND INFRASTRUCTURE FOR THE CURRENT AND FUTURE IMPACTS OF CLIMATE CHANGE AND UNEXPECTED EVENTS.

DRIVERS

- Across all three campuses, many buildings are old and have outdated infrastructure; repairs can be costly.
- Heat islands exist on some campuses.
- There is exposure to high degrees of air pollution and high traffic volumes around all three campuses according to the US Climate Vulnerability Index.
- Climate change is expected to increase the frequency and severity of heat waves, drought, wildfires, and flooding.

ACTIONS

Short-term (0-2 years):

- Create a committee responsible for monitoring and reporting impacts of climate change and unexpected events.

Mid-term (3-5 years):

- BUILDINGS AND INFRASTRUCTURE EVALUATION FOR CLIMATE RISKS: The ongoing Educational and Facilities Master Plan for NOCCCD will evaluate the condition of building assets and infrastructure. As part of this evaluation process, consider the readiness of buildings and infrastructure to current and future climate hazards and associated risks, especially aging water infrastructure identified in the listening sessions.

Long-term (6-10 years):

- Implement changes to address hazards and risks which include:
  - Extreme heat:
    - Ensure adequate cooling capacity as part of Central Plant Updates at all campuses, planning for the future projected cooling days and frequency and severity of heat waves.
    - Ensure redundancy of energy systems to withstand power outages during heat waves.
    - See Objective 5.1 action to improve thermal comfort through increased shade.
  - Prolonged periods of drought and increased frequency of dry days:
    - See Ecological Balance Topic 2.3: Ensure drought-tolerant species selection for landscape – develop district-wide landscape guidelines/ standards that mandate selection of drought tolerant plants.
    - Develop an irrigation plan for species that may require additional watering after initial planting or during extreme heat.
    - While Cypress has line-by-line water metering, other campuses do not. Invest in line-by-line metering to identify and resolve potential leaks.
  - Extreme precipitation: ensure stormwater drainage is adequately sized and maintained.
  - Wildfires: poses potential risk for air quality issues, which compounds existing exposure to air pollutants near all three campuses. Include interventions to ensure indoor air quality, including:
    - Consider requiring MERV-13 filters in all new and renovated buildings. Potential to update design standards with this requirement.

MEASURE OF SUCCESS

- Creation and regular meeting of committee.

METRICS | MILESTONES

- Metrics in progress.

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5. Spaces for Wellness

GOAL | DESIGN INDOOR AND OUTDOOR SPACES THAT SUPPORT STUDENTS, STAFF, FACULTY AND COMMUNITY WELL-BEING - PHYSICALLY, MENTALLY, SOCIALLY, AND EMOTIONALLY.

RETURN TO SAP TOC

WHAT IS THE *SPACES FOR WELLNESS* IMPACT AREA?

The quality and comfort of indoor and outdoor spaces impacts our well-being. Well designed spaces enable the types of programs and activities needed by campus community members, facilitating social gathering, connection, and restoration.

WHAT DOES THIS IMPACT AREA INCLUDE?

- Campus enhancements to support wellbeing
- Foster social connections across the NOCCCD community
- Increase engagement through wellness-focused programming

There are several factors connecting the built environment to health and well-being – does the campus promote healthy food choices or policies? Is it important for the campus to directly connect users to experiences related to nature? Does the campus need to connect users to fitness-related activities or movement? Does the campus provide places for people to connect, relax, and feel safe?

This area focuses on NOCCCD community wellness in alignment with the 2023 Educational and Facilities Master Plan, through the creation of accessible and resilient facilities that support gathering, restoration, connection, and identity safety.

CONNECTING HEALTHY SPACES AND RESILIENT COMMUNITIES

Deep connections exist between health and the environment. Expanding access to spaces where students and staff can connect, learn, and relax can promote mental, physical, and emotional well-being. Environments that support wellness across NOCCCD would result in significant gain of productivity and vibrancy.

A strong sense of social connection and community is shown to help communities bounce back after unexpected events; providing spaces to facilitate connection and gathering can help build emotional resilience.

RESPONSIBLE DEPARTMENTS

District: Facilities
Cypress: Maintenance and Operations Department, Campus Capital Projects
Fullerton: Campus Capital Projects, Vice President of Student Services, Behavioral Health Services for Basic Needs, User Group for Design of Chapman Newell Building housing affinity spaces
NOCE: Director of Counseling and Student Services, Student Equity and Success

CHANCELLOR'S OFFICE GOALS ALIGNMENT

Green Buildings:
The Well Building Standard is referenced as a tool for assessing both new and existing buildings.

Launched by the International WELL Building Institute (IWBI) in October 2014, WELL is a performance-based system that measures, certifies, and monitors features of the built environment impacting human health and wellness.

It covers aspects such as air quality, water purity, lighting, acoustics, and materials that do not release harmful chemicals.

WELL also considers mental health, community engagement, and policies supporting a healthy lifestyle and work-life balance.

5.1 OBJECTIVE | HEALTHY ENVIRONMENTS

IN ACCORDANCE WITH EXISTING NOCCCD COMMITMENTS, FURTHER MINIMIZE THE AMOUNT OF WASTE GENERATED ACROSS CAMPUSES.

DRIVERS

- Some indoor spaces have poor indoor environmental quality, including a lack of windows, views, and natural light, and thermal comfort issues at NOCE; thermal comfort issues at Cypress College; and uninviting classrooms at Fullerton College.
- Campus community members voiced concerns with outdoor spaces, including a lack of shade and outdoor comfort at Cypress College; lack of maintenance and cleanliness of outdoor spaces at Cypress and Fullerton Colleges; concern for safety and maintenance of spaces at NOCE; and a lack of outdoor space at NOCE.

ACTIONS

Short-term (0-2 years):

- IMPROVED OUTDOOR COMFORT STUDY: Study the quality of outdoor environments addressing the following factors:
  - Noise pollution (e.g. traffic).
  - Access to shade and thermal comfort.
  - Access to comfortable seating options.
- CUSTODIAL MAINTENANCE: Develop a plan for improved custodial maintenance of existing outdoor gathering and seating areas to address trash, dirt, vandalism, disrepair, and other cleanliness issues that impact usability.

Mid-term (3-5 years):

- ACTIVE SPACES: Provide a variety of spaces across all three campuses that enable physical activity. First, evaluate availability, utilization, and awareness of existing spaces supporting physical activity. Then, consider the following:
  - Improved communication about recreation facilities already available.
  - Recreation center(s) for students, staff, and faculty.
  - Encourage the use of stairs in addition to elevators (especially at NOCE).
  - Expand pedestrian networks at NOCE, including the option of a walking path around the perimeter of the campus.
- INDOOR ENVIRONMENTAL QUALITY ASSESSMENT: To better understand current indoor environmental conditions, evaluate the indoor environmental quality of buildings across all three campuses, including these physical attributes:
  - Acoustic comfort.
  - Indoor air quality.
  - Lighting, including natural and artificial light.
  - Thermal comfort.

Long-term (6-10 years):

- BIOPHILIC DESIGN: Adopt biophilic principles in campus design. Update District interior design standards to incorporate biophilic design principles, ensuring that new construction and renovations incorporate these principles.
- IMPROVED OUTDOOR COMFORT: Improve the quality of outdoor environments to support increased comfort, addressing the following factors:
  - Noise pollution (e.g. traffic).
  - Increased access to shade and thermal comfort.
  - Increased access to comfortable seating options.

MEASURE OF SUCCESS

- Increase in overall satisfaction with campus indoor and outdoor environments.

METRICS | MILESTONES

- Metrics in progress.

5.2 OBJECTIVE | GATHERING AND RESTORATION

ENABLE SOCIAL GATHERING, CONNECTION, BELONGING, AND RESTORATION FOR STUDENTS, STAFF, FACULTY, AND VISITORS ACROSS ALL CAMPUSES.

DRIVERS

- Lack of social gathering and event spaces across campuses, including a lack of dedicated club spaces and no general meeting space for large wellness events at Cypress College; and “little to no student space to hang out and interact” at NOCE.
- Lack of staff wellness spaces and break rooms at NOCE.
- Desire for more outdoor spaces that support gathering and restoration, including more outdoor seating and gathering at all campuses. NOCE currently lacks outdoor space.

ACTIONS

Short-term (0-2 years):

- STAFF SPACES: Develop policies to ensure that existing staff break/wellness spaces remain dedicated for staff use and meet the needs of staff occupying them.

Mid-term (3-5 years):

- GATHERING SPACES: Provide a variety of informal indoor and outdoor spaces for gathering, connection, and wellbeing including student-centered spaces, community spaces, and wellness spaces that are not tied to a specific identity group.

Long-term (6-10 years):

- IDENTITY AND BRANDING: Consider opportunities to expand and enhance branding for each unique campus. Interventions could include:
  - Murals and public art.
  - Wayfinding and signage throughout campus.
  - Branded gateway signage at entry points.
  - Apparel and swag.

MEASURE OF SUCCESS

- Increase in total number of gathering and restoration spaces.
- Increase in utilization of gathering and restoration spaces.

METRICS | MILESTONES

- Metrics in progress.

5.3 OBJECTIVE | ENGAGEMENT AND PROGRAMMING

INCREASE STUDENT, STAFF, AND FACULTY AWARENESS OF AND ENGAGEMENT IN WELLNESS EVENTS AND PROGRAMS.

DRIVERS

- Timing of wellness events offered does not always align with student schedules, especially for those taking night classes (Fullerton).
- Events are sometimes posted with short notice, making it harder for students to plan for and attend (Fullerton).
- There is desire for more dedicated wellness services and wellness spaces to support them.
- Staff and faculty are experiencing burnout and want more wellness programming.
- NOCE lacks the same capacity as its sister colleges–such as behavioral directors and health centers–to provide wellness events and programming.

ACTIONS

Short-term (0-2 years):

- AUDIT OF WELLNESS EVENTS: Conduct an audit to better understand existing wellness programming at each campus, including:
  - Types of events/programs offered.
  - Level of student engagement at different event types.
  - Days and times at which events are offered.
- STUDENT ENGAGEMENT: Conduct ongoing student engagement to adjust wellness events to changing needs and preferences. Evaluate to determine:
  - Demand for various types of wellness events and programs.
  - Preferred days/times for wellness events.
  - Annually re-evaluate and adjust programming according to feedback.

Mid-term (3-5 years):

- PARTNERSHIPS: Engage third-party partners to expand wellness programming that addresses identified gaps and inequities.
- COMMUNICATION: Increase and improve communication efforts surrounding wellness programming, including:
  - Communicate each event at least 2 weeks in advance.
  - Communicate via multiple platforms, including:
    - Create a dedicated position to support coordination and communication of wellness and basic needs services, events, and programs across campus.
- INCLUSIVE SCHEDULING: Offer wellness events at a variety of times so that students with varying class schedules can participate. Consider the following:
  - Analyze the distribution of student classes and schedules to determine most appropriate times for scheduling non-academic wellness events and programming that work for varying schedules. Plan events accordingly.
  - When approving wellness events, create a system or shared calendar to ensure that events are scheduled across these identified days/times instead of concentrated around similar days/times.

5.3 ACTIONS CONTINUED

Long-term (6-10 years):

- EQUITABLE ACCESS: Offer wellness events equitably across campuses to address any gaps identified in the inventory. Consider:
  - Expanding wellness events, programming, and services at NOCE campus, which currently offers none/fewer events than Fullerton and Cypress. NOCE lacks the same capacity as its sister colleges, such as behavioral directors and health centers.
  - Offer both in-person and virtual wellness programming.
- STAFF & FACULTY WELLNESS PROGRAMS: Increase access to staff and faculty wellness resources and programs across all three campuses. Create a culture that encourages taking breaks and maintaining individual wellness.

MEASURE OF SUCCESS

- Increase in number of wellness events offered per year.
- Increase in attendance at wellness events.

METRICS | MILESTONES

- Metrics in progress.

SUSTAINABILITY IN ACTION

- NOCE is exploring establishing a contract with TimelyCare, which will provide access to virtual therapists and mental health and wellness resources. The contract NOCE is exploring would be a 3-year contract and would allow NOCE students access to 12 scheduled virtual therapy sessions per year and unlimited access to TalkNow (an on-demand mental/emotional support line), self-care resources including on-demand yoga and meditation, and links to basic needs services.
- NOCE hired a full-time Special Projects Coordinator for Mental Health Resource Coordination to help identify and respond to mental health related needs.

6. Basic Needs

GOAL | PROVIDE EQUITABLE ACCESS TO RESOURCES THAT MEET STUDENTS' BASIC NEEDS ON CAMPUS AND IN THEIR COMMUNITIES AND REDUCING BARRIERS TO ACCESS.

RETURN TO SAP TOC

WHAT IS THE *BASIC NEEDS* IMPACT AREA?

NOCCCD believes that student success is directly impacted by access to basic needs, such as food, housing, technology, transportation, childcare, and mental health services. Providing these services will remove barriers to participation, creating social and economic sustainability.

WHAT DOES THIS IMPACT AREA INCLUDE?

- Funding Stability
- Food Services
- Transportation
- Mental Health Services
- Financial Aid
- Housing
- Communication and Awareness

The District's mission is to "serve and enrich our diverse communities by providing a comprehensive program of educational opportunities that are accessible, relevant, and academically excellent." But financial insecurity and a lack of resources in the communities where students live can create barriers to achieving this vision.

In the 2022-2023 academic year, 57% of NOCCCD students identified as low income. If students are hungry in class, unable to get to campus, face housing security, or cannot afford health care, they cannot engage on equal footing in educational opportunities. By investing in basic needs, NOCCCD aims to remove these barriers, thereby enhancing students' "economic mobility, fostering equity, and enriching society."

All three campuses already offer a variety of basic needs resources, including meal vouchers, transportation passes, housing resources, emergency funding, and food banks. Students shared resoundingly during engagement for this SAP that these resources are critical to their educational success, and that more support is needed.

DISPROPORTIONATE IMPACTS OF CLIMATE CHANGE

NOCCCD embraces the connection between economic, social, and environmental sustainability. In February of 2022, NOCCCD adopted Sustainability Administrative Procedure 3580, which committed to promoting "diversity, equity, affordability, and well-being of its employees and students as components of sustainability."

Research shows that the impacts of climate change disproportionately burden communities experiencing socioeconomic stressors and communities of color. For example, individuals with low income may experience higher health consequences than higher income individuals when exposed to the same pollutants.

Access to resources that support health and basic needs builds resilience to climate-related risks and stressors.

NOCCCD students and staff are impacted by these environmental inequities. Based on a 2022 Fullerton College study, many students live in environmentally disadvantaged areas that lack critical community resources. When students do not have access to fresh foods, green spaces, and clean environments in their home communities, NOCCCD can serve as a resource to address these environmental inequities and support educational equity.

RESPONSIBLE DEPARTMENTS

District: Vice Chancellor of Educational Services and Technology, Grants Department
Cypress: Vice President of Student Services, Director of Health and Wellness Center, Student Services Division, Director of Student Life and Leadership
Fullerton: Vice President of Student Services, Behavioral Health Services
NOCE: Vice President of Student Services, Director of Counseling and Student Services

CHANCELLOR'S OFFICE GOALS ALIGNMENT

Consideration for the Future:
California Community Colleges can look beyond just their facilities footprint and leverage the unique role they play in supporting communities and students. The Chancellor's Office invites the broader academic community to consider ways they can support the advancement of the Climate Action and Sustainability Framework.

6.1 OBJECTIVE | FUNDING STABILITY

IDENTIFY SUSTAINED, RELIABLE, AND COLLABORATIVELY ALLOCATED FUNDING SOURCES TO SUPPORT A VARIETY OF BASIC NEEDS SERVICES AND PROGRAMS.

DRIVERS

- Declining enrollment reduces funding for basic needs programs (e.g. Hold Harmless).
- Some existing funding sources for critical resources are set to expire (e.g. bonds, COVID-related funding), putting those resources in jeopardy.
- District-led funding distribution limits colleges' influence on allocation.

ACTIONS

Short-term (0-2 years):

- DISTRICT-WIDE FUNDING SPECIALIST POSITION: Consider hiring a dedicated, district-wide funding specialist to pursue additional third-party funding opportunities.

Mid-term (3-5 years):

- COLLABORATIVE FUNDING ALLOCATION: Explore opportunities for collaborative monitoring and allocation of funding. Involve student and staff representatives from each College in the process of monitoring and allocation to ensure that these reflect the needs and priorities of the intended beneficiaries.

Long-term (6-10 years):

- PARTNERSHIPS: Expand and identify new externally funded partnerships to support services necessary to provide basic needs, ensuring that an equitable distribution of services is provided across campuses.
  - Consider creating a position at each campus responsible for coordinating partnerships, and enabling collaboration between these roles across campuses.
  - "Continued community partnerships such as bringing in Mobile Units for CalFresh, CalOptima, mental health resources." - Staff

MEASURE OF SUCCESS

- Increase in funding for sustainability efforts.

METRICS | MILESTONES

- Metrics in progress.

SUSTAINABILITY IN ACTION

- The District has a dedicated District Director, Grants position to seek grant funding.
- The District has a partnership with Pathways of Hope to help facilitate the coordination and implementation of the campus Food Pantry and to provide service navigation and housing resources to students.

6.2 OBJECTIVE | FOOD RESOURCES

EXPAND ACCESS TO HEALTHY, AFFORDABLE FOOD OPTIONS FOR ALL STUDENTS.

DRIVERS

- Limited food options offered across campuses, including lack of healthy foods and foods that are accessible to varying dietary needs and preferences.
- Space constraints for food serving, preparation, and storage areas (NOCE).
- Limited staff to support food demands (Cypress).
- Lack of communication and awareness of existing food resources.

ACTIONS

Short-term (0-2 years):

- EXPLORE EXPANDED AND HEALTHIER FOOD OPTIONS DISTRICT-WIDE: Explore vendors that provide a greater variety of high-quality food options at all campuses, including:
  - Affordable options.
  - Options that accommodate diverse dietary needs and preferences.
  - Culturally responsive food options that represent a diversity of cuisines.
  - Expanded hours of operation to accommodate a variety of student schedules including night classes.

Mid-term (3-5 years):

- IMPLEMENT EXPANDED AND HEALTHIER FOOD OPTIONS DISTRICT-WIDE: Provide a greater variety of high-quality food options at all campuses based upon research performed above.
- CONSISTENT HOT/FRESH FOOD ACCESS AT NOCE: Investigate options to provide consistent, daily, and affordable access to fresh meals at NOCE, including:
  - Opportunity for culinary students to provide fresh meals to other students.
  - Rotating food trucks that can serve students in the parking lot, and that accept District meal vouchers.
  - Expand the food pantry to include infrastructure for a warming kitchen or full kitchen (investigate feasibility/cost of both).
  - Modernize the bistro space.
  - Improve options offered in vending machines.

Long-term (6-10 years):

- GUARANTEED FUNDING FOR FOOD SUPPORT DISTRICT-WIDE: When emergency aid initiative (which currently funds student meal vouchers) ends, secure resources to continue providing all NOCCCD students with access free and/or subsidized meals on campus (see Funding Stability actions above).
- ADDRESS OPERATIONAL/STAFFING NEEDS: Address operational needs, like additional staff in food service areas, to enable preparation of healthy options throughout the day.

MEASURE OF SUCCESS

- Increase in dollars spent toward plant based/locally sourced foods.

METRICS | MILESTONES

- Metrics in progress.

SUSTAINABILITY IN ACTION

- Free meals for all students at Cypress and Fullerton through $12/day vouchers (sustainable funding required).
- Food banks/pantries at all three campuses provide students with access to groceries.
- Cal Fresh event to help students sign up for and access food resources (NOCE).
- Fullerton recently performed a study on student access to fresh foods, green spaces, and clean environments.
- NOCE Emergency Aid Program provides grocery assistance to qualifying students.

6.3 OBJECTIVE | TRANSPORTATION ACCESS

DESPITE TRANSPORTATION RESOURCES OFFERED, SOME STUDENTS EXPERIENCE CHALLENGES GETTING TO CAMPUS.

DRIVERS

- NOCE students do not have access to bus passes; they do not have an Associated Student Organization with membership dues, which funds bus passes at Fullerton and Cypress Colleges.
- Gas can be a financial barrier to getting to school.
- Transit passes do not apply to all regional transit providers.
- Campus context and entrances pose safety risks for bikes and pedestrians.
- Lack of student awareness of transit options and supports.

ACTIONS

Short-term (0-2 years):

- REDEFINE BASIC NEEDS: Expand the NOCCCD definition of basic needs to include transportation.

Mid-term (3-5 years):

- IMPROVE PEDESTRIAN NETWORK: For all campuses, integrate transportation planning into sustainability and campus master planning efforts, including:
  - Build partnerships with jurisdictions that preside over sidewalks and pedestrian infrastructure surrounding campuses.
  - Develop a connected network of pedestrian infrastructure that links multi-modal infrastructure to campus cores.

Long-term (6-10 years):

- EXPAND PUBLIC TRANSIT ACCESS: Expand existing transit passes and benefits to include:
  - Build upon the OCTA College Pass Program to provide transit passes for NOCE students.
  - Negotiate with local transit agencies to locate a public transit stop/route near NOCE.
  - Investigate provision of transit passes for additional transit agencies for students enrolled at all campuses who live beyond the jurisdiction of the passes provided.
- PROVIDE EMERGENCY TRANSPORTATION SUPPORT: Provide qualifying students experiencing financial insecurity with emergency and/or long-term funding for private transportation (e.g. gas, rideshare) if public transportation is not a viable commuting option.

MEASURE OF SUCCESS

- Decrease in number of students who report difficulty getting to campus.
- Increase in number of students who access transit passes per campus.

METRICS | MILESTONES

- Metrics in progress.

SUSTAINABILITY IN ACTION

- Bus passes are provided to Cypress and Fullerton students through the OCTA College Pass Program.
- NOCE has a Mobility training program and assists DSS students with obtaining monthly bus passes.

6.4 OBJECTIVE | MENTAL HEALTH RESOURCES

EXPAND MENTAL HEALTH RESOURCES AND SERVICES TO SUPPORT THE WELL-BEING OF CAMPUS COMMUNITIES.

DRIVERS

- Following the pandemic, students are facing increased stressors.
- Staff are experiencing increased overwhelm and burnout.
- Lack of dedicated spaces for mental health services/programs (Fullerton).
- Limited mental health staff and training for staff to support increased demands, including limited training at Cypress and no licensed mental health staff at Fullerton.
- Limited mental health services offered to students (partly driven by understaffing).
- NOCE students do not have access to the same mental health resources as other campuses.

ACTIONS

Short-term (0-2 years):

- STAFF WELLNESS: Encourage staff mental health and wellness, including:
  - Investigate staff and faculty benefits to ensure health insurance coverage of mental health services, e.g. expansion of benefits for part-time employees and adjunct staff.
  - Investigate wellness incentive.

Mid-term (3-5 years):

- DISTRICT-WIDE STAFF TRAINING: Provide staff at all campuses with training on how to navigate mental health conversations and direct those seeking help to the appropriate resources.
- LICENSED MENTAL HEALTH STAFF: Hire licensed mental health professional that can support, diagnose, and treat students across all campuses.

Long-term (6-10 years):

- SPACES FOR MENTAL HEALTH AND WELLNESS: See “Design for Wellness” impact area.
- MINDFULNESS AND SELF-REGULATION: Provide existing faculty and teaching staff with the resources to incorporate mindfulness and self-regulation concepts into any course. Consider:
  - Investing in an instructor or professional experts to develop the content.

MEASURE OF SUCCESS

- Staff participation in training courses.
- Increase in staff benefits offered.

METRICS | MILESTONES

- Metrics in progress.

SUSTAINABILITY IN ACTION

- Fullerton, Cypress, and NOCE have RAD Cards, which provide information about on-campus and community resources, especially related to crisis response.
- NOCE ARISE Lab provides specialized support for students experiencing stressors from academic and campus life. ARISE supports students with building social and communication skills, executive functioning, and managing anxiety and stress.

7. Inclusion and Multi-Cultural Relevance

GOAL | REINFORCE AN INCLUSIVE CAMPUS ENVIRONMENT AND CULTURE FOR STUDENTS OF ALL RACES/ETHNICITIES, SEXUAL ORIENTATIONS, GENDER IDENTITIES, AGE GROUPS, AND ACADEMIC NEEDS.

RETURN TO SAP TOC

WHAT IS THE *INCLUSION AND MULTI-CULTURAL RELEVANCE* IMPACT AREA?

Reinforce an inclusive campus environment and culture for students of all races/ethnicities, sexual orientations, gender identities, age groups, and academic needs.

WHAT DOES THIS IMPACT AREA INCLUDE?

- Fostering a culture of accountability for DEIA&A commitments
- Expanding access to support and resources
- Increasing visibility and community for cultures and identities
- Physical and digital accessibility

The District plans to create an environment that fosters diversity through a strong sense of place and belonging across the identities of campus occupants and the communities they represent. This also includes necessary organizational transformation to support broader goals carried forward in the 2023 Educational and Facilities Master Plan.

SOCIAL, CLIMATE, AND ENVIRONMENTAL JUSTICE THROUGH SUSTAINABILITY

Diversity, Equity, and Inclusion work in higher education is indivisible from sustainability efforts; both can be understood as complementary principles of justice: social, climate, and environmental alike. Social issues do not take place in a vacuum, but rather in relationship with places and communities. Fundamentally, both DEIA&A and sustainability work must align in their parallel work to shift both individual attitudes and behaviors and the structure of higher education and larger policies and decision-making toward social and environmental justice.

Research also shows that creating an inclusive campus environment directly enables success in the areas of community resilience and many other sustainability goals. The more cohesive the campus community, the stronger they will be when bouncing back from campus disruptions such as climate hazards.

The 2023 Educational and Facilities Master Plan includes an initiative to “ensure equitable access to education in support of Diversity Equity, Inclusion, Accessibility, and Anti-Racism (DEIA&A) objectives” contributing to the District’s core mission. By understanding how well spaces meet DEIA&A goals today, and who is impacted by deficiencies, the District can identify policies, actions, and campus improvements to address disproportionalities.

RESPONSIBLE DEPARTMENTS

District: Director of DEI, Department of Student Services
Cypress: Student Equity and Success Department, Affinity Groups, Human Resources, Sustainability Committee, Professional Development Committee
Fullerton: Director of Student Development and Engagement, Cadena Cultural Center, Human Resources
NOCE: DEIA Committee Chair, Accessibility Advisory Working Group Chair, SEA Committee Chair, Director, Student Equity and Success

CHANCELLOR’S OFFICE GOALS ALIGNMENT

Looking to the Future:
“Consistent with the Vision for Success, the California Community Colleges can create connections between plans, projects and committees (including those specific to Diversity, Equity, and Inclusion efforts) and the Climate Action and Sustainability Plan.”

7.1 OBJECTIVE | TRAINING AND ACCOUNTABILITY

CREATE A CULTURE OF ACCOUNTABILITY ACROSS NOCCCD FOR THE CALIFORNIA COMMUNITY COLLEGE DISTRICT'S COMMITMENT TO DIVERSITY, EQUITY, INCLUSION AND ACCESSIBILITY (DEIA) AND ANTI-RACISM.

DRIVERS

- Some staff do not engage in DEIA training being offered, and there is limited accountability for attending (NOCE).
- Some BIPOC staff report microaggressions, hostility, and lack of support from colleagues/leadership (NOCE).
- Some staff in part time positions experience inequitable opportunities and employment insecurity.
- Limited staff training to support students through mental health and identity challenges.
- Orange County's political climate fosters misconceptions about diversity, inclusion, and equity.
- Performative equity: existing policies have not always translated into a cultural shift or organizational transformation towards equity.

ACTIONS

Short-term (0-2 years):

- ADDRESS HOSTILITY TOWARDS BIPOC STAFF: Engage an external equity consultant to conduct listening sessions with BIPOC staff and faculty, identify key issues experienced, and evaluate potential recommendations.
- INCENTIVES AND ACCOUNTABILITY: Collaborate with Human Resources to identify incentives and methods of accountability to ensure that all faculty and staff participate in equity and diversity training already being offered. Suggestions include:
  - Required equity and inclusion orientation upon hiring.
  - Training requirements in role descriptions.
- DEIA TRAINING: Conduct diversity, equity, inclusion, and accessibility training available to all faculty and staff, including:
  - Foundational concepts.
  - Resources for supporting students through issues of race and identity.
  - Identify student equity champions on each campus to serve on Sustainability Task Forces (2015 plans: NOCCCD | Student Equity Plans).
  - Identify individuals from District Sustainability task force(s) to serve on the Student Equity Planning Committees.

Mid-term (3-5 years):

- INTERSECTING SUSTAINABILITY AND EQUITY: Identify opportunities to collaborate across committees and planning efforts related to sustainability and equity. Consider the following:
  - As part of Student Equity Plan updates, incorporate the intersection of sustainability and social justice.
- DISCRIMINATION RESPONSE PROTOCOL: In accordance with the AASHE STARS framework, institute a discrimination response protocol that allows staff and faculty to safely report ongoing challenges and issues, like racism and discrimination.

Long-term (6-10 years):

- INTERSECTING SUSTAINABILITY AND EQUITY: Identify opportunities to collaborate across committees and planning efforts related to sustainability and equity. Consider the following:
  - As part of NOCCCD Master Plan, incorporate the intersection of sustainability and social justice.

MEASURE OF SUCCESS

- Percentage of staff who participate in DEIA training.
- Level of support and safety experienced by BIPOC staff (survey).

METRICS | MILESTONES

- Metrics in progress.

7.2 OBJECTIVE | EXPANDED LANGUAGE SUPPORTS

EXPAND ACCESS TO MULTILINGUAL SUPPORT AND RESOURCES TO PROVIDE A MORE EQUITABLE EDUCATIONAL EXPERIENCE TO CURRENT AND PROSPECTIVE STUDENTS, FACULTY, AND STAFF OF ALL LANGUAGE BACKGROUNDS.

DRIVERS

- Students and staff across campuses expressed the need for expanded language supports, including accessible information in many languages and multilingual wayfinding.

ACTIONS

Short-term (0-2 years):

- MULTILINGUAL COMMUNICATION: Provide essential communications in all major languages spoken by the campus community. Leverage demographic information from student enrollment process to identify additional languages in which to offer communication.

Mid-term (3-5 years):

- MULTILINGUAL SUPPORT AND RESOURCES: Provide multilingual students, staff, and faculty with support services for interpretation, translation, communication, and navigation of the education system upon request. Consider exploring the following avenues:
  - Expanded student services for students.
  - Expanded human resources programs for staff and faculty.

MEASURE OF SUCCESS

- Percentage of essential communications provided in multiple languages.

METRICS | MILESTONES

- 100% of essential communications provided in multiple languages by 2030.

SUSTAINABILITY IN ACTION

- NOCE uses the Language Services Associates (LSA) translation service during counseling and student service appointments to assist students with onboarding, accessing support resources, and communication during appointments.

7.3 OBJECTIVE | REPRESENTATIVE CAMPUS ENVIRONMENTS

INCREASE REPRESENTATION, CELEBRATION OF, AND SUPPORT FOR DIVERSE, INTERSECTIONAL CULTURES AND IDENTITIES ACROSS THE DISTRICT.

DRIVERS

- NOCCCD has a diverse student body, serving primarily BIPOC students.
- Students desire programming for specific student groups and identity groups, including affinity groups and connection opportunities.
- There are not enough spaces to support affinity groups, inclusion, and shared identity.
- Desire for facilities that support diverse populations (gender neutral bathrooms, prayer rooms for Muslim students).
- Desire for equitable representation of and accommodation for religious practices.

ACTIONS

Short-term (0-2 years):

- SPACES FOR AFFINITY GROUPS, REPRESENTATION, AND GATHERING: Create and execute an improvement plan for spaces supporting inclusion, gathering, and belonging, and cultural expression through affinity groups, large social gatherings, programs, student organizations, support services, and third-party vendors. Include the following steps:
  1. Conduct a space inventory/audit to identify existing spaces that support multiple/diverse culture and organizations. Evaluate their effectiveness.
  2. Develop a collaborative vision for multicultural and affinity gathering spaces across NOCCCD campuses.

Mid-term (3-5 years):

- REPRESENTATIVE COURSE MATERIALS: Develop resources for faculty and staff to incorporate more representative course materials into their coursework.
- PUBLIC ART: Invest in culturally representative public art, or other design features, that engage and welcome visitors.
- RELIGIOUS EQUITY: Develop policies and flexible spaces to more equitably represent all religions practiced by the campus community.

Long-term (6-10 years):

- EXPAND PROGRAMMING: Engage students at each campus to identify programming desires and opportunities related to social connection and identity. Examples from students so far include:
  - Cultural events for black students and & cultures represented.
  - Cultural events and programming at NOCE that match those offered at Cypress Fullerton.
- Identify opportunities for capital investments that will support these functions, for example:
  - Highly flexible event spaces that can accommodate more than one group at a time.
  - Warming kitchens to support campus community use.
  - Dedicated multicultural center(s).
  - Office spaces to accommodate counseling and advising.
  - Social environments that are visible, central, and inclusive.
  - Meditation and ablution spaces.

MEASURE OF SUCCESS

- Conducting a campus climate/culture survey then disaggregating by race/ethnicity, religion, and gender identity the sense of safety, support, and welcome on campus; the goal would be proportional results across groups.

METRICS | MILESTONES

- Metrics in progress.

7.4 OBJECTIVE | ACCESSIBILITY AND UNIVERSAL DESIGN

INCREASE ACCESSIBILITY OF PHYSICAL AND DIGITAL ENVIRONMENTS FOR STUDENTS, FACULTY, STAFF, AND VISITORS OF ALL ABILITIES, INCLUDING THOSE WITH DISABILITIES, THOSE WHO SPEAK PRIMARY LANGUAGES OTHER THAN ENGLISH, AND NON-GENDERED INDIVIDUALS.

DRIVERS

- Existing wayfinding across campuses is not always accessible or offered in multiple languages.
- Implementation of Universal Design for Learning (UDL) provides multiple means for delivering instruction, assessing knowledge, demonstrating competence, etc. Implementation of UDL is good for all learners and reduces the need to accommodate students with disabilities. It acknowledges that all people have unique learning styles and strategies and helps ensure a level playing field for all.

ACTIONS

Short-term (0-2 years):

- Develop maps and clear communication for locations of gender-neutral bathrooms.

Mid-term (3-5 years):

- Physical accessibility improvements:
  - NOCE Elevator: Repair or replace the NOCE elevator to ensure reliability of service.
- Accessibility for virtually delivered information and curriculum.

Long-term (6-10 years):

- ACCESSIBLE WAYFINDING: As part of ongoing accessibility improvements, incorporate multilingual and accessible wayfinding strategies into physical and digital wayfinding systems at all campuses; apply UDL strategies.

MEASURE OF SUCCESS

- Implementation of accessibility and wayfinding overhauls to:
  - Gender neutral restroom maps.
  - Virtually delivered information.
  - Campus maps, signage, and other wayfinding utilities.

METRICS | MILESTONES

- Metrics in progress.

SUSTAINABILITY IN ACTION

- NOCE has included UDL in the Strategic Plan, developed an Accessibility Plan that includes UDL and all aspects of accessibility, and provided trainings to all staff on UDL.
- Multiple campuses have completed physical accessibility/ADA improvements.
- Campuses have gender-neutral bathrooms available.

8. Shared Ownership

GOAL | INCREASE SHARED ACCOUNTABILITY FOR, INVOLVEMENT IN, AND ACTION AROUND SUSTAINABILITY ACROSS CAMPUS COMMUNITIES.

RETURN TO SAP TOC

WHAT IS THE *SHARED OWNERSHIP* IMPACT AREA?

Shared ownership promotes environmental justice through collective and coordinated actions that create a healthy environment for the NOCCCD community.

WHAT DOES THIS IMPACT AREA INCLUDE?

- Awareness and Communication
- Increased participation
- Systems of Accountability and Support

This focus raises awareness of the impacts of climate change by offering instruction and programs that educate faculty, staff and students about the threat and what they can do to address it. Intended outcomes support the implementation of initiatives and goals outlined in the 2023 Educational and Facilities Master Plan.

SUSTAINABILITY EDUCATION

To advance CCCCO climate action education and engagement, the District and colleges can consider developing an inventory of courses focused on climate change, sustainability, and action to engage current and future students. This is in alignment with the 2023 EFMP, encouraging collaboration across interdisciplinary pathways.

To support organizational transformation, and in alignment with NOCCCD's 2023 EFMP to have Collective Impact, the District will create and sustain mechanisms of accountability across governance and decision-making structures towards commitments for education, training and support of its community.

To contextualize this area of focus, AASHE STARS encourages co-curricular sustainability programs and initiatives, activities already underway at Cypress College. Furthermore, it recommends the following actions when considering this area of impact:

- Conduct an inventory to identify sustainability course offerings. Offer at least one sustainability-focused, undergraduate-level major, degree program, minor or concentration.
- Assess the sustainability literacy of the institution's students.
- Utilize the institution's infrastructure and operations as a living laboratory for applied student learning for sustainability. Opportunity to tie in with existing CTE programs.
- Offer incentives for academic staff to develop new sustainability courses and/or incorporate sustainability into existing courses or departments.
- Create a committee to explore opportunities to expand this program district-wide.

RESPONSIBLE DEPARTMENTS

District: Communications Team, Professional Development, Sustainability Committee
Cypress: Communications Team, Professional Development, Sustainability Committee, President's Office and Campus Leadership (VPI, VPSS, VPAS, Communications Director, IR)
Fullerton: Communications Team, Professional Development, Sustainability Committee
NOCE: Communications Team, Professional Development, Sustainability Committee, Vice Chancellor

CHANCELLOR'S OFFICE GOALS ALIGNMENT

Looking to the Future:
Consistent with the Vision for Success, the California Community Colleges can create connections between plans, projects and committees (including those specific to Diversity, Equity, and Inclusion efforts) and the Climate Action and Sustainability Plan.

8.1 OBJECTIVE | AWARENESS AND COMMUNICATION

INCREASE AWARENESS ABOUT SUSTAINABILITY CONCEPTS AND PRACTICES, INCLUDING DISTRICT-WIDE AND CAMPUS-SPECIFIC INITIATIVES AND INFRASTRUCTURE PROJECTS.

DRIVERS

- Limited communication and messaging of sustainability initiatives, programming, and concepts.

ACTIONS

Short-term (0-2 years):

- ASSESS SUSTAINABILITY LITERACY: At each campus, administer the sustainability survey –drafted in Spring 2024 by Fullerton College – on a 3-year cycle to align with STARS reporting. The survey seeks to understand the following student mindsets:
  - Knowledge and literacy on current sustainability topics and challenges.
  - Sustainable values, beliefs, behaviors, and commuting patterns.
  - Awareness of campus sustainability initiatives.
- WEBSITE: Update the District website, and the websites of each individual campus, to provide shared sustainability information including: (From Fullerton Plan)
  - District-wide definition of sustainability.
  - District-wide and campus-specific sustainability policies (including this plan).
  - Campus STARS data.
  - Campus-specific events, programs, and initiatives.
  - Any other resources to advance community knowledge of sustainability.
- STAFF AND FACULTY ONGOING UPDATES: At each campus, provide regular updates to staff and faculty about sustainability initiatives, events, programs, and resources through each campus's website, campus events calendar, social media channels, staff and student newsletters, and other relevant channels appropriate to the time.

Mid-term (3-5 years):

- SOCIAL MEDIA CAMPAIGN: At each campus, establish a social media presence to provide regular sustainability updates to the campus community. (From Fullerton Plan)
  - From STARS EN 5: Outreach Campaign:
    - This credit recognizes institutions that hold sustainability outreach campaigns that yield measurable, positive results in advancing the institution's sustainability performance (e.g., a reduction in energy or water consumption).
- FLEX DAY KEYNOTE: Work with District entities to establish funding for a Flex Day keynote every 3 years focused on sustainability. Each cycle should include different sustainable themes to diversify the information and keep the event interesting for retention.
- STAFF AND FACULTY ON-BOARDING: As part of on-boarding for new staff and faculty, incorporate sustainability concepts consistent with those provided in student orientation, along with staff and faculty-specific expectations related to sustainable practices, including:
  - Strategy for behavior awareness in objective 6.1.
  - From STARS EN 8: Employee Orientation: "Institution covers sustainability topics in new employee orientation and/or in outreach and guidance materials distributed to new employees. The topics covered include multiple dimensions of sustainability (i.e., environmental, social, and economic)."
- STUDENT ORIENTATION COMMUNICATIONS: Connect each semester with campus-specific first-year experiences and programs to provide sustainability materials and offer presentations to their orientation events. Include the following campus-specific groups along with any other identified first-year experiences:
  - Fullerton: Promise, EOPS, Veterans, Online
  - Cypress: Charger Experience, EOPS, Veterans, Puente, Legacy, STEM2, DSS, AS Senate, Student Ambassadors
  - NOCE: Online Orientation, Student Leadership Program, Canvas Resources Hub.
  - From STARS EN 2: Student Orientation:
    - Institution includes sustainability prominently in its student orientation activities and programming. Sustainability activities and programming are intended to educate about the principles and practices of sustainability. The topics covered include multiple dimensions of sustainability (i.e. environmental, social, and economic).

Objective 8.1 Continued

- Reassess sustainability literacy.
- Continue the Flex Day Keynote cycle.

Long-term (6-10 years):

MEASURE OF SUCCESS

- Increased engagement (in numbers) of views, clicks, impressions, and engagement with communicated materials.

METRICS | MILESTONES

- Metrics in progress.

SUSTAINABILITY IN ACTION

- As part of the Fullerton College Sustainability Plan, Fullerton College already plans to issue a Sustainability Survey in spring 2024.
- Fullerton College has identified and is making progress on a number of the action items outlined in this section; best practices can be applied to NOCE and Cypress College.

8.2 OBJECTIVE | PARTICIPATION

INCREASE OPPORTUNITIES FOR CAMPUS COMMUNITY MEMBERS TO PARTICIPATE IN SUSTAINABILITY INITIATIVES, EFFORTS, GOAL-SETTING, AND DECISION-MAKING.

DRIVERS

- Limited, piecemeal/disparate opportunities to engage in sustainability (coursework, programs, events, etc.), Including lack of resources for staff and faculty who want to champion sustainability, and limited training.
- Constraints due to State curriculum requirements.

ACTIONS

Short-term (0-2 years):

- STAFF AND FACULTY INPUT: Member(s) of the Sustainability Office and/or Sustainability Committee for each campus should attend their campus's President's Advisory Council and associated Senates to provide updates on campus sustainability initiatives and provide a forum for feedback and input. This input should be reported to each campus's Sustainability Director on an ongoing basis.
- SAGE TRAINING COURSE: Develop the Sustainability Across General Education (SAGE) Course to lead instructors across the District in developing sustainability-inclusive instructional materials for existing courses across disciplines. See Appendix item 1 for the full training course proposal.
- ASSOCIATED STUDENTS INPUT: Member(s) of the Sustainability Office and/or Sustainability Committee for each campus should attend Associated Students meetings to provide updates on campus sustainability initiatives and provide a forum for feedback and input. This input should be reported to the district-wide Sustainability Office on an ongoing basis. (Edited from Fullerton Plan)
- "Provide resources and work with Associated Students on sustainability outreach campaigns with measurable and positive outcomes. Examples include BYO Cup Days, Educational Fairs for Sustainable Home Living, Bike-to-School Days, etc." (Fullerton Plan)

Mid-term (3-5 years):

- SAGE TRAINING COURSE ROLLOUT: Rollout the Sustainability Across General Education (SAGE) Course to lead instructors across the District in developing sustainability-inclusive instructional materials for existing courses across disciplines.
- NOCCCD SUSTAINABILITY INITIATIVE: Integrate sustainability training, education, and engagement in its programming across all campuses via a district-wide sustainability initiative. The initiative would support three faculty fellows, one from each respective campus, dedicated to helping faculty and staff to learn about sustainability and incorporate sustainability principles in and beyond the classroom. Fellows will be expected serve as a conduit by attending Academic Senate, Sustainability Fellow, Sustainability Committee, and other meetings. See Appendix item 2 for the full initiative proposal.

Long-term (6-10 years):

- EXPAND SUSTAINABILITY-RELATED PROGRAMMING BEYOND CURRICULUM: Provide more opportunities for students, faculty, and staff to engage in sustainability-related activities beyond curriculum. Consider the following suggestions from engagement:
  - Establish an annual Earth Day speaker district-wide.
  - Provide an associate arts program for environmental sustainability, horticulture workshop, district could help with a speaker, volunteerism and public events.
- INTEGRATED ASSIGNMENT: Consider a campus-wide or district-wide integrated assignment that incorporates a rotating topic related to sustainability and/or climate change into all courses.
- GROUP COURSES TO OFFER CERTIFICATES: Consider grouping sustainability-related courses together to offer certificates to students that complete a set of classes.

MEASURE OF SUCCESS

- Number of staff and faculty who have participated in the SAGE training course.
- Number of sustainability certificate programs offered at each campus.

METRICS | MILESTONES

- Metrics in progress.

8.3 OBJECTIVE | SYSTEMS OF ACCOUNTABILITY AND SUPPORT

CLEARLY DEFINE SYSTEMS OF ACCOUNTABILITY AND SUPPORT FOR SUSTAINABILITY ACTIONS AND COMMITMENTS ACROSS THE ORGANIZATION (AMONGST STUDENTS, STAFF, AND FACULTY).

DRIVERS

- Some upper management resistance to sustainability goals.
- Limited oversight/system/avenues for addressing individuals who are not performing /upholding goals and standards.
- Staff and faculty roles related to sustainability efforts are not clearly defined.
- Differences in sustainability governance structures across campuses.

ACTIONS

Short-term (0-2 years):

- REDEFINE SUSTAINABILITY: Adopt a formal, district-wide definition of sustainability that includes the intersections of social and environmental justice in addition to decarbonization and resource conservation; these aspects of sustainability were reinforced widely by students and staff through the engagement of this plan.
- DISTRICT-WIDE OFFICE OF SUSTAINABILITY: Establish a district-wide Office of Sustainability including a district-wide Director of Sustainability position and Director of Sustainability positions at each campus.
    - Draft role descriptions for district-wide and campus-specific Director of Sustainability positions.
    - Draft a budget for the Office of Sustainability, including allocation processes for each campus, based on the goals of this plan.

Mid-term (3-5 years):

- UPDATE ROLE DESCRIPTIONS: Based on the recommendations outlined in this plan and the responsible departments identified for each impact area, update role descriptions across the District to include reference to and responsibility for the execution of this plan and District sustainability commitments.
- ESTABLISH DISTRICT-WIDE SUSTAINABILITY COMMITTEE: Establish sustainability working groups at each campus (e.g. Sustainability Committee, Associated Student Committee on Sustainability) made up of campus community members at each campus to communicate, raise awareness of, and organize events around energy conservation measures. Facilitate cross-campus/district-wide meetings of these teams to communicate strategies and best practices.
    - While campus-specific student sustainability committees exist at some campuses, and staff/faculty Sustainability Committees exist at all campuses, there is not one district-wide forum to communicate sustainability strategies and best practices.

Long-term (6-10 years):

- EDUCATIONAL AND FACILITIES MASTER PLAN ALIGNMENT: Align all planned building recommendations (demolitions, renovations, and new builds) recommended in the 2024 EFMP Update with the sustainability goals, objectives, and actions outlined in this SAP. In the next Educational and Facilities Master Plan Update, coordinate with this sustainability plan to directly reference and provide facilities strategies towards achieving this SAPS goals, objectives, and actions.

While all three campuses have Sustainability Committees, only Fullerton has a dedicated Sustainability Office with a full-time Sustainability Director. To support consistent communication, coordination, outreach, and implementation of this plan across campuses it is essential to have dedicated Directors who are integrated into essential campus decision-making processes such as campus-level master planning and sustainability planning.

MEASURE OF SUCCESS

- Implementation of roles to meet this plan.

METRICS | MILESTONES

- Metrics in progress.

4

TOTAL COST OF OWNERSHIP MODEL

RETURN TO TOC

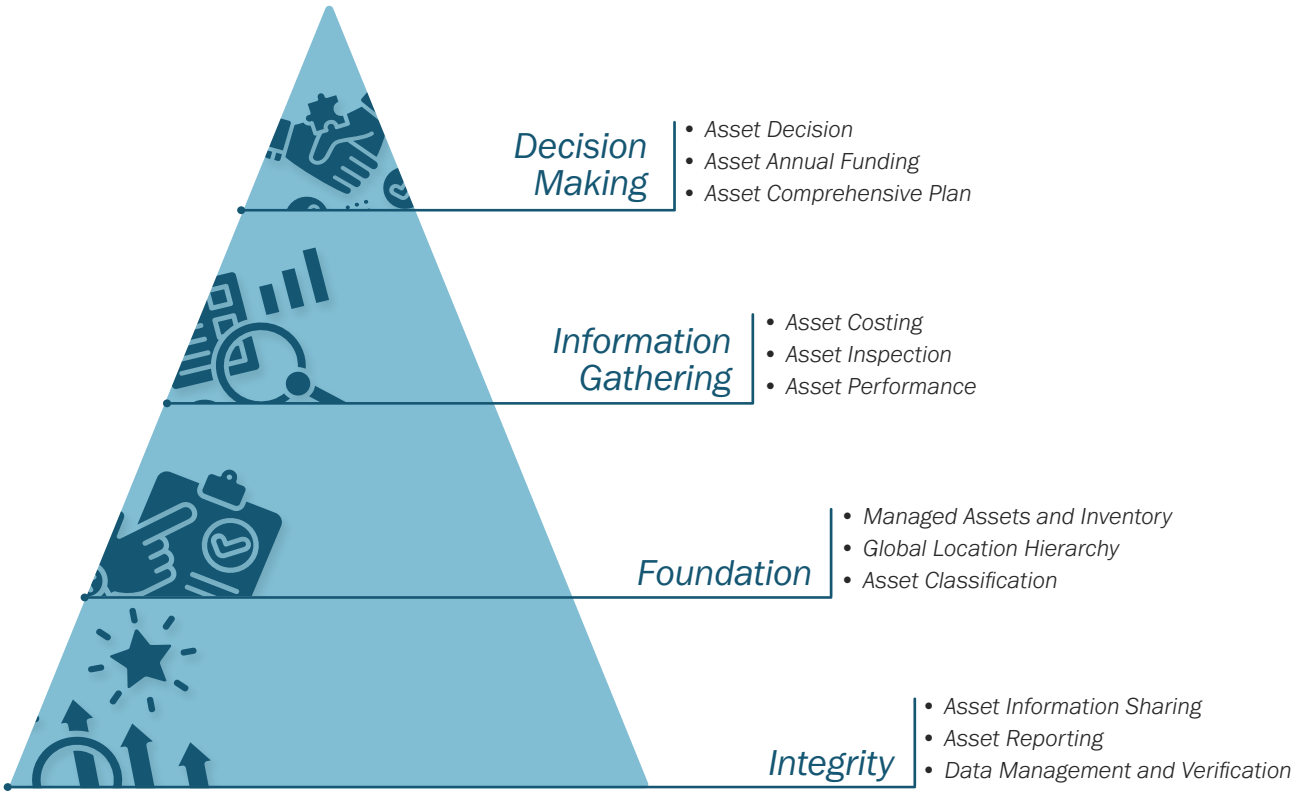
TOTAL COST OF OWNERSHIP

TCO is a tool to holistically understand the true cost of ownership of any asset or investment as it takes into account not only the initial capital costs required, but the long term operations costs, including human resources, renewal, and replacements costs, as well as the end of useful life costs associated with demolition, and resale. As part of data gathering for SAP, DLR Group also collected data on maintenance budgets, operations, maintenance personnel, and long-term capital planning projects to understand the total cost of ownership for the District.

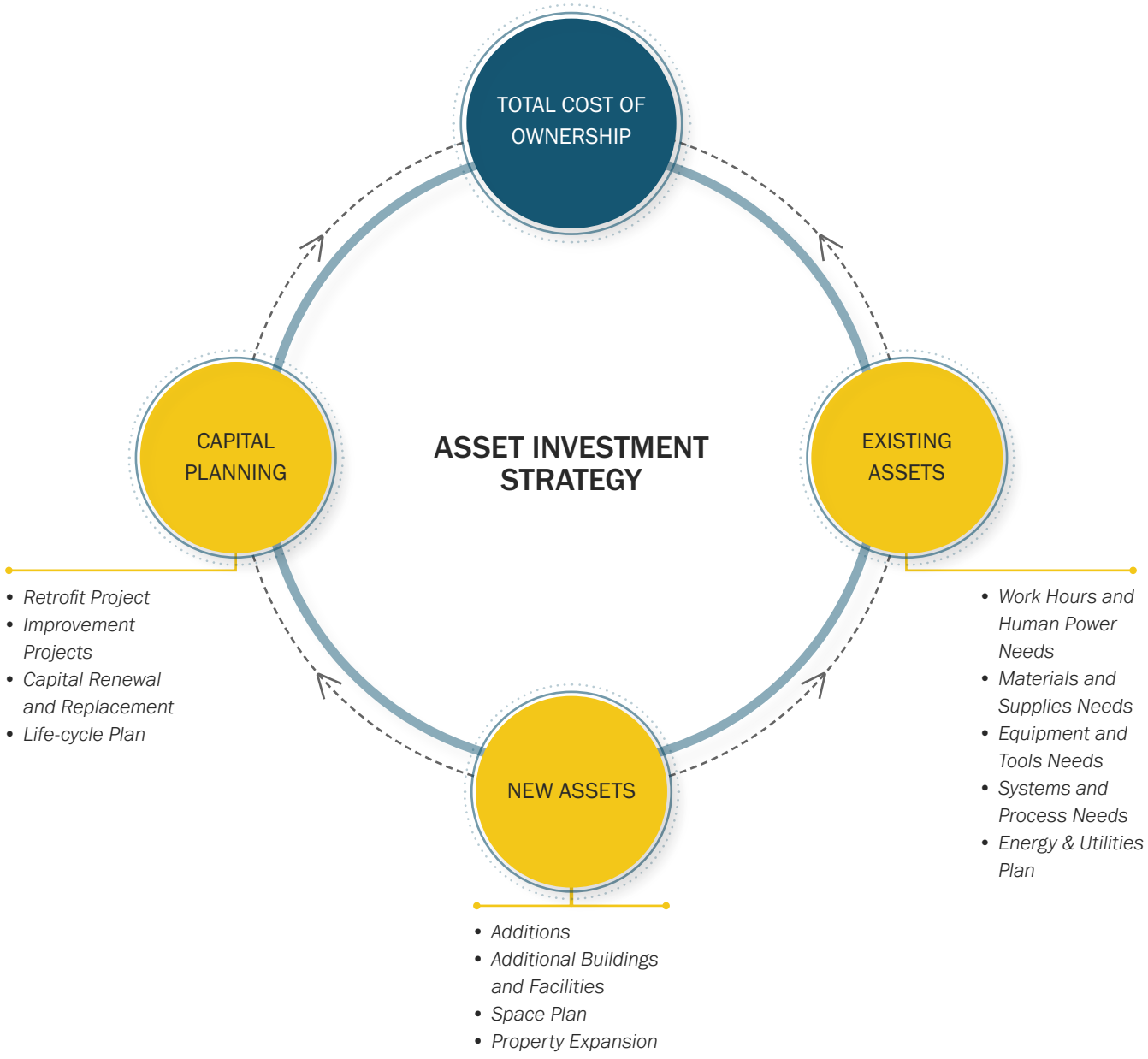
Implementing a holistic TCO model supports college accreditation efforts and future Bond Measures. Hence, the TCO model is intended to support the District with planning for new construction, existing building maintenance, infrastructure needs, and academic program and policy planning. The model also should offer historical and projected costs on all aspects of one-time and ongoing expenditures related to any planning decision and benchmark data from peer institutions.

As a first step, DLR Group collated existing efforts around TCO between the three colleges and identified similarities and differences in their approach, focus, and application. Then to develop a holistic approach to TCO, a framework from APPA-Leadership in Education Facilities was used. Next, APPA's 13 key principles to the TCO framework were adapted to District's preferences and practices through several conversations with key stakeholders such as the VP of Business Services, facilities directors, operations and maintenance directors at each college, and District capital planning leaders, which led to the development of an overarching Goal and objectives for the TCO model.

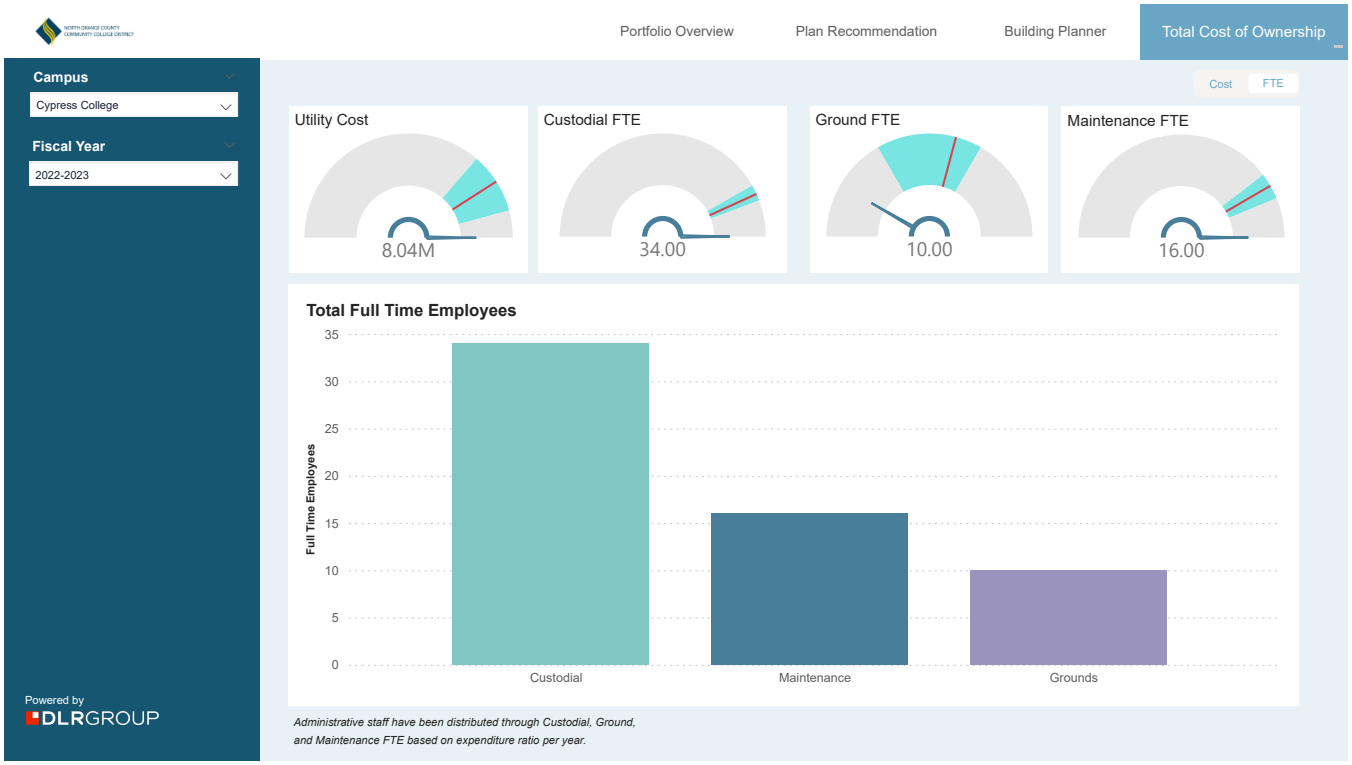
It is important to recognize the TCO model does not address current inefficiencies. Course and Lab scheduling impact the utilization of space. The expansion of the scheduling window will result in better use of space.



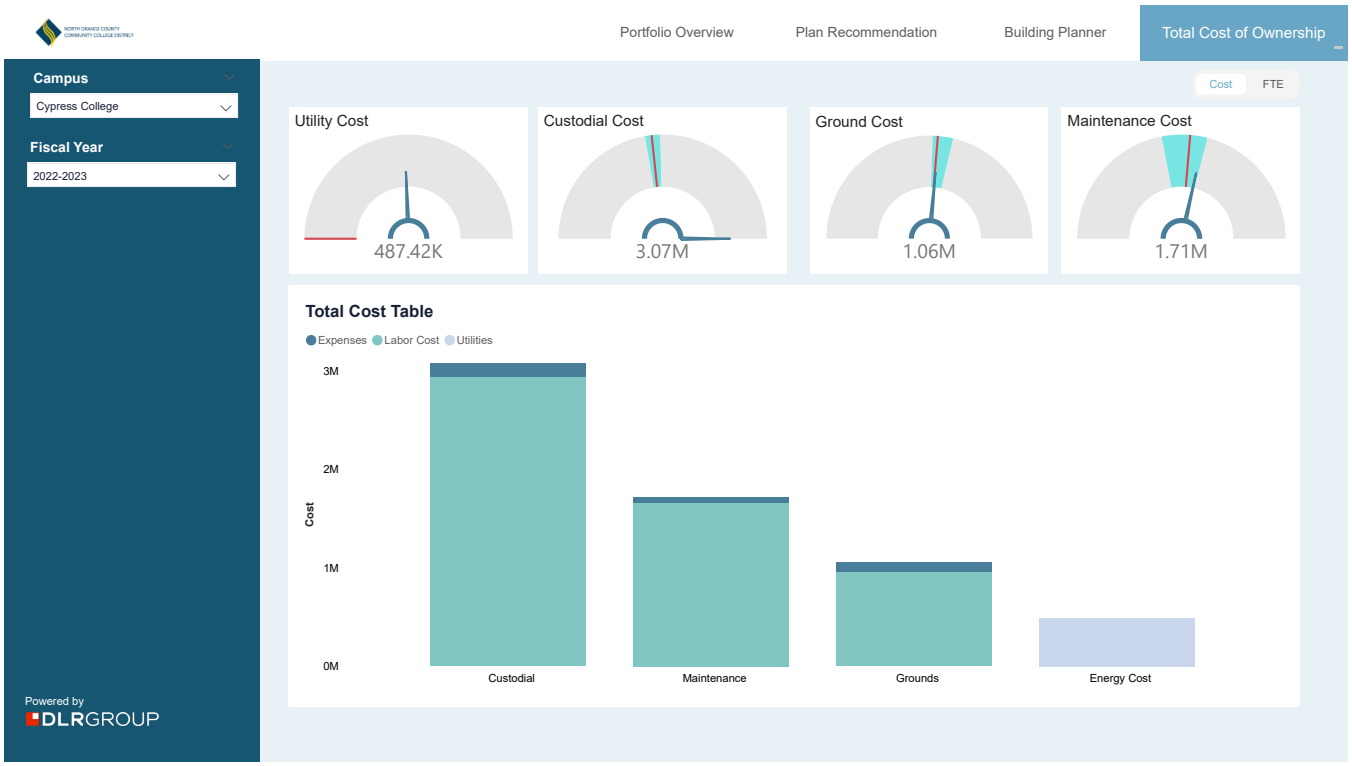
ASSET INVESTMENT STRATEGY



TCO DASHBOARD EXAMPLES



TCO Dashboard Displaying Total Full Time Employees for Cypress College.



TCO Dashboard Displaying Total Cost Table for Cypress College.

5

MOVING FORWARD

RETURN TO TOC

IMPLEMENTATION OF THIS PLAN

The District is committed to implementing this Sustainability Action Plan. This will be achieved through a variety of opportunities to engage with campus community members, strategic alignment of near and long-term district-wide and campus-specific improvements, and policies and actions reinforcing the identified initiatives and specific impact areas identified herein.

The rate and degree of implementation will depend on the resources available to NOCCCD through financial support, policy alignment, staffing, etc. The objectives and actions will guide measures of success and accomplishment in the future, and the District should consider strategies to implement campus improvements that help achieve the goals outlined. Additionally, with a lack of available funding, NOCCCD should consider grants and partnerships to aid in funding the initiatives within this plan.

While each Impact Area has specific departments indicated as the responsible parties for the oversight and implementation of each objective, this Sustainability Action Plan may necessitate staff augmentation, or the hiring of external professionals to fill expertise gaps. Staff Augmentation allows NOCCCD to access specialized skills necessary for carrying out the objectives outlined within this plan, both at a district-level and college-level.

This plan is just the beginning. As part of the analysis and goal setting, the potential actions and measures outlined in this plan will be confirmed with the campus community and integrated into the overall master plan implementation planning. The planning effort will also establish milestones for implementing each sustainability action.

The integrated master plan process will allow for the standalone sustainability projects to be prioritized alongside all capital projects and for sustainable policies and practices to influence design and construction of all campus capital projects.

PLAN AT A GLANCE

SUMMARY OF GOALS, OBJECTIVES, AND ACTIONS

The following tables summarize the eight impact areas defined in this SAP, including goals, objectives, measures, and responsible departments. Departments listed are responsible for all objectives listed within the specified impact area. For more detail, see chapter 3.

01 DECARBONIZATION

GOAL: Reduce campus carbon emissions to meet the requirements of the California Community Colleges Chancellors Office Climate Action and Sustainability Goals.

#	Objective	Measure	Responsible Departments	
1.1	**MONITORING AND REPORTING** Establish systems of accountability to measure and track carbon emissions across Scope 1, Scope 2, and Scope 3.	Data-informed facilities, operations, and maintenance decision-making that incorporates utility data.	District	Facilities
1.2	**REDUCING BUILDING RELIANCE ON FOSSIL FUELS (SCOPE 1)** Reduce carbon emissions caused by on-site fuel combustion for building operations.	Percentage reduction in total carbon emissions (per person and per square foot) compared to 2019 baseline. • 30% by 2025 • 75% by 2030* • 100% by 2035*	Cypress	Maintenance and Operations
1.3	**ENERGY NEED REDUCTION** Reduce campus operational energy use intensity (EUI).	Percentage reduction of energy use per conditioned area (SF) compared to 2019 baseline. • 25% reduction by 2030* • 40% reduction by 2035*	Fullerton	VP of Administrative Services, Maintenance and Operations
1.4	**FLEET DECARBONIZATION** Reduce total carbon emissions caused by fleet vehicles and maintenance and operations equipment.	Percentage of campus vehicle fleet and equipment that is all-electric. • 100% of new fleet vehicles and maintenance operations equipment is zero emissions by 2035.	NOCE	Facilities
1.5	**RENEWABLE ENERGY SOURCING** Supply district energy needs with renewable energy.	Percentage of fuel mix from renewables. • 75% by 2030* • 100% by 2035*		
1.6	**COMMUTING-RELATED EMISSIONS** Reduce carbon emissions due to commuting.	Percentage reduction of commuter carbon emissions.		

*Per Chancellors Office Goals

02 ECOLOGICAL BALANCE

GOAL: Reduce NOCCCD's ecological impacts on campuses and in surrounding communities.

#	Objective	Measure	Responsible Departments	
2.1	**WATER CONSERVATION** Decrease water use (potable and non-potable).	Reduction in gallons of annual potable water use per weighted campus user compared to 2019 baseline. • 25% by 2030 • 50% by 2035	District	Facilities
2.2	**SUSTAINABLE WATER MANAGEMENT** Reduce the impact of NOCCCD's water management practices on local, regional, and national ecosystems.	Reduction in gallons of annual potable water use per weighted campus user compared to 2019 baseline. • 25% by 2030 • 50% by 2035	Cypress	Maintenance and Operations
2.3	**ECOLOGY AND BIODIVERSITY** Reduce campus operational energy use intensity (EUI).	Percentage of district land reserved for biodiversity importance and protected areas.	Fullerton NOCE	Maintenance and Operations Facilities

03 DISRUPTING THE CULTURE OF CONSUMPTION

GOAL: Support a cultural shift across campuses away from wasteful use of resources toward conscious procurement, consumption, and disposal.

#	Objective	Measure	Responsible Departments	
3.1	**WASTE REDUCTION/ MINIMIZATION** In accordance with existing NOCCCD commitments, further minimize the amount of waste generated across campuses.	Percentage reduction of total amount of waste generated per weighted campus user compared to a 2025 baseline. • 10% by 2030 • 25% by 2035	District	Director of Risk Management, Technology and Engineering Team, Purchasing Department
3.2	**WASTE DIVERSION** Increase the percentage of waste diverted from landfills.	Percentage of total waste generated that is diverted from landfills, including compost, recycling, and donated or re-used materials. • 10% by 2030 • 25% by 2035	Cypress	Campus Capital Projects, Maintenance and Operations, District Risk Management
3.3	**SUSTAINABLE PURCHASING AND PROCUREMENT** Align purchasing decisions with organizational goals to support waste minimization, diversion, and environmental and social responsibility.	• Metric Needed	Fullerton	Campus Capital Projects, Maintenance and Operations, Director of Campus Safety, Emergency Management
3.4	**WASTE EDUCATION AND AWARENESS** Educate stakeholders across the waste stream to support a cultural shift towards reduction and diversion.	Total instances of waste-related content included in communications.	NOCE	Instructional Technology Services, Instructional Programs

04 CLIMATE AND COMMUNITY RESILIENCE

GOAL: Prepare the campus to reduce the impact of climate change in both emergency and non-emergency situations.

#	Objective	Measure	Responsible Departments	
4.1	**INFRASTRUCTURE RESILIENCE** Prepare campus buildings and infrastructure for the current and future impacts of climate change and unexpected events.	Creation and regular meeting of committee to monitor impacts of climate change and unexpected events.	District Cypress Fullerton NOCE	Facilities, Emergency Management Campus Capital Projects, Maintenance and Operations, Director of Campus Safety, Emergency Management Campus Capital Projects, Maintenance and Operations, Director of Campus Safety, Emergency Management Campus Safety

05 SPACES FOR WELLNESS

GOAL: Design indoor and outdoor spaces that support student, staff, and community well-being - physically, mentally, socially, and emotionally.

#	Objective	Measure	Responsible Departments	
5.1	**HEALTHY ENVIRONMENTS** Improve interior and exterior environmental conditions to support wellbeing.	Increase in overall satisfaction with campus indoor and outdoor environments.	District	Facilities
5.2	**GATHERING AND RESTORATION** Enable social gathering, connection, belonging, and restoration for students, staff, faculty, and visitors across all campuses.	Increase in total number of gathering and restoration spaces. Increase in utilization of gathering and restoration spaces.	Cypress	Maintenance and Operations Department, Campus Capital Projects
5.3	**ENGAGEMENT AND PROGRAMMING** Increase student, staff, and faculty awareness of and engagement in wellness events and programs.	Increase in number of wellness events offered per year. Increase in attendance at wellness events.	Fullerton	Campus Capital Projects, Vice President of Student Services, Behavioral Health Services for Basic Needs, User Group for Design of Chapman Newell Building housing affinity spaces
			NOCE	Director of Counseling and Student Services, Student Equity and Success

06 BASIC NEEDS

GOAL: Provide equitable access to resources that meet students' basic needs on campus and in their communities, reducing barriers to access.

#	Objective	Measure	Responsible Departments	
6.1	**FUNDING STABILITY** Identify sustained, reliable, and collaboratively allocated funding sources to support a variety of basic needs services and programs.	Increase in funding for sustainability efforts.	District	Vice Chancellor of Educational Services and Technology, Grants Department
6.2	**FOOD RESOURCES** Expand access to healthy, affordable food options for all students.	Increase in dollars spent towards plant based/locally sourced foods.	Cypress	Vice President of Student Services, Director of Health and Wellness Center, Student Services Division, Director of Student Life and Leadership
6.3	**TRANSPORTATION ACCESS** Improve ease of access to campus, prioritizing students experiencing financial insecurity or challenges getting to campus.	Decrease in number of students who report difficulty getting to campus. Increase in number of students who access transit passes per campus.	Fullerton	Vice President of Student Services, Behavioral Health Services
6.4	**MENTAL HEALTH RESOURCES** Expand mental health resources and services to support the well-being of campus communities.	Staff participation in training courses. Increase in staff benefits offered.	NOCE	Vice President of Student Services, Director of Counseling and Student Services

07 INCLUSION AND MULTI-CULTURAL RELEVANCE

GOAL: Reinforce an inclusive campus environment and culture for students of all races/ethnicities, sexual orientations, gender identities, age groups, and academic needs.

#	Objective	Measure	Responsible Departments	
7.1	**TRAINING AND ACCOUNTABILITY** Create a culture of accountability across NOCCCD for the California Community College District's Commitment to DEIA and anti-racism.	Percentage of staff who participate in DEIA training. Level of support and safety experienced by BIPOC staff (survey).	District	Director of DEI, Department of Student Services
7.2	**EXPANDED LANGUAGE SUPPORTS** Expand access to multilingual support and resources to provide a more equitable educational experience to current and prospective students, faculty, and staff of all language backgrounds.	Percentage of essential communications provided in multiple languages. • 100% by 2030	Cypress	Student Equity and Success Department, Affinity Groups, Human Resources
7.3	**REPRESENTATIVE CAMPUS ENVIRONMENTS** Increase representation, celebration of, and support for diverse, intersectional cultures and identities across the district.	Conducting a campus climate/culture survey then disaggregating by race/ethnicity, religion, and gender identity the sense of safety, support, and welcome on campus; the goal would be proportional results across groups.	Fullerton	Director of Student Development and Engagement, Cadena Cultural Center, Human Resources
7.4	**ACCESSIBILITY AND UNIVERSAL DESIGN** Increase accessibility of physical and digital environments for students, faculty, staff, and visitors of all abilities, including those with disabilities, those who speak primary languages other than English, and non-gendered individuals.	• Metric Needed	NOCE	DEIA Committee Chair, Accessibility Advisory Working Group Chair, SEA Committee Chair, Director, Student Equity and Success

08 SHARED OWNERSHIP

GOAL: Increase shared accountability for, involvement in, and action around sustainability across campus communities.

#	Objective	Measure	Responsible Departments	
8.1	**AWARENESS AND COMMUNICATION** Increase awareness about sustainability concepts and practices, including district-wide and campus-specific initiatives and infrastructure projects.	• Metric Needed	District	Communications Team, Professional Development, Sustainability Committee
8.2	**PARTICIPATION** Increase opportunities for campus community members to participate in sustainability initiatives, efforts, goal-setting, and decision-making.	Number of staff and faculty who have participated in the SAGE training course. Number of sustainability certificate programs offered at each campus.	Cypress	Communications Team, Professional Development, Sustainability Committee, President's Office and Campus Leadership (VPI, VPSS, VPAS, Communications Director, IR)
8.3	**SYSTEMS OF ACCOUNTABILITY AND SUPPORT** Clearly define systems of accountability and support for sustainability actions and commitments across the organization (amongst students, staff, and faculty).	Implementation of roles to meet this plan.	Fullerton	Communications Team, Professional Development, Sustainability Committee
			NOCE	Communications Team, Professional Development, Sustainability Committee, Vice Chancellor

COLLABORATIVE IMPLEMENTATION

Because of its holistic set of sustainability goals and objectives, implementation of this SAP requires collaboration across NOCCCD's many campus and district-wide departments. Actions span across facilities, operations, student services, professional development, education, equity, funding, and more. By engaging all the departments below, implementation of this plan can integrate and embed sustainability across NOCCCD's campuses and culture.

DISTRICT DEPARTMENT RESPONSIBILITIES

DISTRICT DEPARTMENTS	DECARBONIZATION	ECOLOGICAL BALANCE	DISRUPTING THE CULTURE OF CONSUMPTION	CLIMATE AND COMMUNITY RESILIENCE	SPACES FOR WELLNESS	BASIC NEEDS	INCLUSION AND MULTICULTURAL RELEVANCE	SHARED OWNERSHIP
Facilities	✓	✓		✓	✓			
Director of Risk Management			✓					
Technology and Engineering Team			✓					
Purchasing Department			✓					
Emergency Management				✓				
Vice Chancellor of Educational Services and Technology						✓		
Grants Department						✓		
Department of Student Services							✓	
Director of DEI							✓	
Communications Team								✓
Professional Development								✓
Sustainability Committee								✓

CYPRESS DEPARTMENT RESPONSIBILITIES

CYPRESS DEPARTMENTS	DECARBONIZATION	ECOLOGICAL BALANCE	DISRUPTING THE CULTURE OF CONSUMPTION	CLIMATE AND COMMUNITY RESILIENCE	SPACES FOR WELLNESS	BASIC NEEDS	INCLUSION AND MULTICULTURAL RELEVANCE	SHARED OWNERSHIP
Maintenance and Operations	✓	✓	✓	✓	✓			
Campus Capital Projects			✓	✓	✓			
District Risk Management			✓					
Director of Campus Safety				✓				
Emergency Management				✓				
Vice President of Student Services						✓		
Director of Health and Wellness Center						✓		
Student Services Division						✓		
Director of Student Life and Leadership						✓		
Student Equity and Success Department							✓	
Affinity Groups							✓	
Human Resources							✓	
Communications Team								✓
Professional Development								✓
Sustainability Committee								✓
President's Office and Campus Leadership (VPI, VPSS, VPAS, Communications Director, IR)								✓

FULLERTON DEPARTMENT RESPONSIBILITIES

FULLERTON DEPARTMENTS	DECARBONIZATION	ECOLOGICAL BALANCE	DISRUPTING THE CULTURE OF CONSUMPTION	CLIMATE AND COMMUNITY RESILIENCE	SPACES FOR WELLNESS	BASIC NEEDS	INCLUSION AND MULTICULTURAL RELEVANCE	SHARED OWNERSHIP
VP of Administrative Services	✓							
Maintenance and Operations	✓	✓	✓	✓				
Campus Capital Projects			✓	✓	✓			
Director of Campus Safety			✓	✓				
Emergency Management			✓	✓				
Vice President of Student Services					✓	✓		
Behavioral Health Services (for Basic Needs)					✓	✓		
User Group for Design of Chapman Newell Bldg.					✓			
Director of Student Development and Engagement							✓	
Cadena Cultural Center							✓	
Human Resources							✓	
Communications Team								✓
Professional Development								✓
Sustainability Committee								✓

NOCE DEPARTMENT RESPONSIBILITIES

NOCE DEPARTMENTS	DECARBONIZATION	ECOLOGICAL BALANCE	DISRUPTING THE CULTURE OF CONSUMPTION	CLIMATE AND COMMUNITY RESILIENCE	SPACES FOR WELLNESS	BASIC NEEDS	INCLUSION AND MULTICULTURAL RELEVANCE	SHARED OWNERSHIP
Facilities	✓	✓						
Instructional Programs			✓					
Instructional Technology Services			✓					
Campus Safety				✓				
Vice President of Student Services						✓		
Director of Counseling and Student Services					✓	✓		
DEIA Committee Chair							✓	
Accessibility Advisory Working Group Chair							✓	
SEA Committee Chair							✓	
Director, Student Equity and Success					✓		✓	
Communications Team								✓
Professional Development								✓
Sustainability Committee								✓
Vice Chancellor								✓

6

GLOSSARY

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GLOSSARY

AASHE - the Association for the Advancement of Sustainability in Higher Education.

AASHE STARS - the Association for the Advancement of Sustainability in Higher Education's (AASHE) Sustainability Tracking, Assessment, and Rating System (STARS) is a tool for evaluation of campus-wide sustainability efforts. The system recognizes achievements in five categories – Academics, Engagement, Operations, Planning and Administration, and Innovation and Leadership.

Alternative Fueled Vehicles - vehicles powered by an engine that does not solely run on petroleum, such as electric, hybrid, and hydrogen fuel cell engines.

Baseline - setting a reference point measurement or value to compare future data against to track progress.

Best Management Practices - methods that have been determined to be the most effective and practical means of addressing desired objectives.

Biodiversity - the variety of life in the world or in particular habitat or ecosystems.

Building Envelope - the portion of a building that separates interior, temperature and humidity controlled space from exterior environmental conditions.

CalGreen Voluntary Measures - the CalGreen tiers are the so-called "voluntary" measures of the California Green Building Standards Code (CalGreen). The Tier requirements are only "voluntary" for the building department to adopt, or not adopt. If adopted, they are mandatory for your project.

Carbon Emissions - carbon dioxide emissions or CO2 emission are emissions stemming from the burning of fossil fuels which includes the consumption of solid, liquid, and gas fuels.

Climate Change - change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.

Carbon Neutrality - or having a net zero carbon footprint, refers to achieving net zero carbon emissions by balancing a measured amount of carbon released with an equivalent amount sequestered or offset, or buying enough carbon credits to make up the difference.

Decarbonization - reducing or eliminating the use of fossil fuels in buildings by using renewable energy sources such as solar, wind, and geothermal power.

Ecologically Sensitive Areas - any land designated as habitat for threatened or endangered species; or area intended to encourage natural habitat development.

Energy Conservation Measures (ECMs) - upgrades, retrofits, repairs and replacements that businesses can implement to become more energy efficient. These measures can significantly reduce operating costs while providing operational benefits by allowing businesses to replace old, outdated equipment.

Energy Use Intensity (EUI) - the amount of energy used per square foot annually.

Environmental Justice - The US Environmental Protection Agency defines this as "the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability" in decision-making and other activities that affect human health and the environment so that people:

- are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and
- have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.

Environmentally Preferable Purchasing (EPP) - products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

Embodied Carbon - refers to the amount of GHG emissions associated with upstream—extraction, production, transport, and manufacturing—stages of a product's life.

EV Charging Stations - an electric vehicle charging station, also called EV charging station, electric recharging point, charging point, charge point and EVSE (electric vehicle supply equipment), is an element in an infrastructure that supplies electric energy for the recharging of electric vehicles, such as plug-in electric vehicles, including electric cars, neighborhood electric vehicles and plug-in hybrids.

EPEAT - a free and trusted source of environmental product ratings that makes it easy to select high performance electronics that meet an organization's IT and sustainability goals.

Equity - NOCCCD defines equity as ensuring "equal educational opportunities and to promote student success for all students, regardless of race, gender, age, disability, or economic circumstances.

Greenhouse Gas (GHG) Emissions - any gas that contributes to the trapping of the sun's warmth in the atmosphere.

Inclusion - the practice or policy of providing equal access to opportunities and resources for people who might otherwise be excluded or marginalized, such as those who have physical or intellectual disabilities and members of other minority groups. (Oxford Dictionary)

Integrated Energy Management Dashboard - a dashboard that models current campus energy consumption and establishes Energy Use Intensity (EUI) metrics for setting building-by-building energy goals compared to external benchmarks. It is intended to achieve the energy goals of the College through the implementation of a wide range of energy related projects and methodologies, in alignment with the educational and facilities master plans and in support of the continued progression of the campus building and modernization program. The dashboard embodies a holistic approach to energy planning by recognizing the importance of coordinating short-term and medium-term energy cost savings with longer-term needs.

Integrated Pest Management - a systematic approach to managing pest problems using the least invasive measures first and scaling up intensity only as necessary.

Leadership in Energy & Environmental Design (LEED) - a green building certification program that recognizes best-in-class building strategies and practices. LEED is a program of the U.S. Green Building Council (USGBC).

Material Circularity - a product is created with its own end-of-life taken into account. In a circular economy, once the user is finished with the product, it goes back into the supply chain instead of the landfill.

Minimum Control Measures - develop, implement, and enforce a Stormwater Management Program designed to reduce the discharge of pollutants, protect water quality, and to satisfy the appropriate water quality requirements.

Multicultural Relevance - ensuring that practices, policies, spaces and behaviors are relevant to and reflect the values, beliefs, and traditions of racial, ethnic, religious, sexual orientation, gender identity, socio-economic, and other groups, as opposed to only that of dominant group(s).

Natural Gas - Natural gas is an odorless, gaseous mixture of hydrocarbons that accounts for approximately 30% of energy used in the United States. The vast majority of natural gas in the United States is considered a fossil fuel.

Net-Zero Waste - 90 percent or higher diversion of solid waste from the landfill or incineration.

Non-Potable Water - water that is not of drinking quality but, depending on its quality, can be used for many other purposes.

On-Site Fuel Combustion - the combustion of fossil fuel at a building to provide building services, such as heating, hot water, or electricity.

Photovoltaics (PV) - the conversion of light into electricity using semiconducting materials that exhibit what is called the photovoltaic effect. Photovoltaic technology helps to mitigate climate change because it emits much less carbon dioxide than fossil fuels. Solar PV has specific advantages as an energy source: once installed, its operation generates no pollution and no greenhouse gas emissions.

Post-Consumer Composting – composting that occurs after a customer has made a purchase and finished their meal.

Potable Water - water of a quality suitable for drinking, cooking and personal bathing.

Rainwater Recapture - the practice of collecting rainfall from impervious surfaces and storing it for future use.

Renewable Energy – energy from sources that regenerate rapidly such as solar, wind, and hydroelectric.

Resiliency - the ability of a system or community to survive disruption and to anticipate, adapt, and flourish in

Rewild - creating and managing protected areas, protecting and restoring ecosystems, working with Indigenous people on their land rights, and preventing wildlife crime.

Scope 01 Emissions - emissions from sources that an organization owns or controls directly – for example from burning fuel in our fleet of vehicles (if they're not electrically-powered).

Scope 02 Emissions - emissions that a company or institution causes indirectly when the energy it purchases and uses is produced. For example, for electric fleet vehicles, the emissions from the generation of the electricity that powers them would fall into this category.

Scope 03 Emissions - encompasses emissions that are not produced by the company itself, and not the result of activities from assets owned or controlled by them, but by those that it's indirectly responsible for, up and down its value chain.

Second Nature Campus Evaluation of Resilience Dimensions - a checklist to help institutions of higher education assess the five dimensions of resilience, and complete the Resilience Assessment as part of the Climate or Resilience Commitment. The tool can be used to survey campus and community members regarding their understanding of strengths and vulnerabilities in the area.

Social Equity - just and fair inclusion into a society in which all can participate, prosper, and reach their full potential.

Solar Photovoltaics (PV) - Photovoltaics (PV) is the conversion of light into electricity using semi-conducting materials that exhibit what is called the photovoltaic effect. Photovoltaic technology helps to mitigate climate change because it emits much less carbon dioxide than fossil fuels. Solar PV has specific advantages as an energy source: once installed, its operation generates no pollution and no greenhouse gas emissions.

Source and Site Energy - site energy is the electricity or fuel consumed within a property boundary. Source energy is the initial fuel consumed to produce either electricity or fuel. Below are the two Source Energy Conversion Factors from American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) Standard 105 that used in this IEMP. 1. Imported Electricity – Source Energy Conversion Factor = 3.15. i.e. 3.15 units of electricity are consumed at the source to produce one unit of site electricity for electricity generated by fossil fuels. 2. Natural Gas – Source Energy Conversion Factor = 1.09 meaning that the energy consumed through generation of the power is virtually equivalent to the energy distributed to the site with very minor losses along the way.

Sub-metering - the ability to individually monitor and measure utility usage and consumption.

Sustainability Literacy - the knowledge, skills and mindsets that allow individuals to become deeply committed to building a sustainable future and assisting in making informed and effective decisions to this end.

Total Cost of Ownership - an estimation of the expenses associated with purchasing, deploying, using and retiring a product or piece of equipment. TCO, or actual cost, quantifies the cost of the purchase across the product's entire life-cycle.

Triple Bottom Line Sustainability - the holistic definition of sustainability that moves beyond a singular association with the environment and is founded on balancing three main aspects: Environmental, Social, and Economic.

United Nations Sustainable Development Goals (UN SDGs) - a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity. The Goals target the year 2030 for completion.

Urban Heat Island Effect - areas where cities are hotter than the countryside due to human-made structures and activities.

Viewing Architecture through the Lens of User Experience and Sustainability (VALUES) - a collaborative visioning session to establish sustainability goals. VALUES considers how sustainability decisions relate to the way people experience their environment.

Vulnerability Assessment - measures how operations, infrastructure, and district-community populations may be at risk form and threatened by climate change

Waste Categorization Assessment, or Waste Audit - an analysis of a facility's waste stream. It identifies what types of recyclable materials and waste an institution generates and how much waste is recovered for recycling or sent to landfill.

Waste Diversion or Landfill Diversion - the process of sending waste to recycling facilities or other reuse infrastructure in lieu of sending it to landfills.

Water Conservation Measures (WCMs) - Water conservation measures are actions and policies that can help reduce overall water usage on a campus. These can span selection of water saving fixtures (sinks, toilets, showerheads), to the types of plants selected for landscaping that require lower water usage.

Wellness - comprises of eight mutually co--dependence dimensions: emotional, spiritual, intellectual, physical, occupational, financial, environmental and social. In the context of wellness within the Sustainability and Climate Action Plan, how does changing climate impact the dimensions of wellness.

Well Building Standard - performance-based system for measuring, certifying, and monitoring features of the built environment that impact human health and well-being, through air, water, nourishment, light, fitness, comfort and mind.

Weighted Campus User - a STARS-defined statistical measurement that is used to normalize information across campuses of varying populations. The measurement includes the number of on-campus residents and the numbers of full-time equivalent students, faculty, and staff.

Zero Emissions Vehicle (ZEV) - a vehicle that emits no exhaust gas from the on board source of power.

Zero Net Energy (ZNE) - a building, or a group of buildings or a campus achieve Zero Net Energy when the energy produced through renewable energy technologies is equal to or greater than the fossil-fuel based energy consumed over the course of a year.

A

APPENDICES

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A1 SAGE TRAINING PROPOSAL

NOCCCD Professional Development: SAGE Training Course

***S**ustainability **A**cross **G**eneral **E**ducation (SAGE) - Training faculty to develop sustainability inclusive instructional materials across disciplines.*

Rationale and Training Course Proposal

The ***S**ustainability **A**cross **G**eneral **E**ducation* (SAGE) training course will lead instructors in developing sustainability-inclusive instructional materials (e.g. assignments, units, projects, etc.). These materials can be incorporated into existing courses and allow faculty to develop outcomes aligned with sustainability and sustainability principles. Potential outcomes will teach students to recognize the importance of sustainability and allow them to actively engage in one aspect of sustainability related to their area of study. Regardless of their academic pathway, by offering courses that address sustainability issues, NOCCCD will equip students in supporting a more sustainable future. The U.S. Bureau of Labor Statistics projected that occupations related to helping the environment or conserving natural resources could grow up to 68% in some sectors. Moreover, many employers are seeking workers who are trained in or familiar with sustainability principles as businesses respond to societal pressures toward socially responsible and sustainable practices.

The SAGE training course will operationalize sustainability-inclusive courses across the academic spectrum which are included in institutional Sustainability Tracking, Assessment, & Rating System (STARS) to the Association for the Advancement of Sustainability in Higher Education (AASHE). This course will facilitate the development of instructional resources that contextualizes the economic, political, social, scientific, and health aspects of sustainability in a variety of disciplinary work. Through the lens of social and environmental justice, faculty will develop instructional materials that engage students' critical thinking that connect sustainability to their areas of study.

In accordance with District AP 3580 Section 3.0 and the Fullerton College Sustainability Plan Section 4.2, this training course will support the integration of sustainability and sustainability principles into courses across different disciplines. This proposal will develop the SAGE training course with three modules to guide instructors to:

1. Establish a foundation in sustainability and sustainability principles.
2. Explore the diverse pedagogy of sustainability and sustainability principles.
3. Develop discipline appropriate instructional resource(s) that include one or more sustainability principles.

Outcomes

Outcome 1: Increase the number of Sustainability-Inclusive courses

AASHE defines a sustainability-inclusive course as including a module or unit that addresses sustainability issues. In its initial STARS submission, Fullerton College reported 2% of courses being sustainability-inclusive[1] and subsequently identified as an area in need of

improvement in the FC Sustainability Plan. Development and launch of the SAGE course will support the FC Sustainability Plan and support similar efforts across NOCCCD.

Outcome 2: Establishing the SAGE Community of Practice and SAGE Instructional Resource Repository for NOCCCD

Upon completion of the SAGE course, faculty will contribute at least one instructional resource to the digital repository (via Canvas or OneDrive). The repository will be made available to District faculty for adoption in discipline appropriate courses. Faculty who complete the SAGE course will also be invited to become part of the SAGE Community of Practice. This community will provide support and other resources for integrating sustainability into the courses.

Outcome 3: Supporting Sustainability Literacy, Global Awareness, and Ethical Citizenship [Fullerton College]

The FC Office of Sustainability and Office of Institutional Effectiveness (OIE) are developing a sustainability student survey to be launched in April 2024. The results of the sustainability literacy and culture survey will serve as a baseline/benchmark for FC students. The long term goal of this project is for students to learn about sustainability across multiple disciplines in a way that addresses the ISLO Global Systems Awareness and Ethical Citizenship:

> *Analyze the interconnectedness of racial, cultural, political, social, economic, and environmental issues from multiple perspectives and recognize the individual agency and collective responsibility necessary for positively influencing those systems.*

Timeline

In early fall 2023, the Sustainability Faculty Inquiry Group proposed a two phase development for the ***S**ustainability **A**cross **G**eneral **E**ducation (SAGE)* training course that spanned the 2023-24 academic year. This was based on 320 hours total from four members contributing 80 hours each to the course development. This timeline has been modified to begin in early Spring 2024

<u>*2024 Spring - Summer* SAGE Course development</u>

- Develop clear guidelines from established sources (AASHE, UNSDGs, Earth Charter)[2] for SAGE instructional resources.
- Develop SAGE modules
    - Foundation: establish a foundation in sustainability
    - Pedagogy: explore and discuss the diverse pedagogy of sustainability
    - Instructional Resources: develop teaching resource(s) in sustainability principles within their specific discipline.
- Develop assessment for SAGE course (instructors) and SAGE instructional resources (students)
- Generating instructional resources within the pedagogy of sustainability principles will be required to be considered for course completion.

NOCCCD Professional Development: SAGE Training Course

2024 Fall SAGE Course deployment and Assessment

- Select SAGE facilitators (e.g. Faculty Fellows NOCCCD Sustainability Initiative)
- Select first cohort to complete SAGE (8-12 faculty from all divisions)
- Deploy course over ~6-8 weeks (2+ hrs per week)
    - 2-3 Zoom meetings with facilitators
    - Encourage meetings/collaboration with other participants
- Stipend for SAGE participants (12-15 hrs; suggested $1000 stipend)
    - Payable in 2 installments: completion of course & completion of assessment data (see below)
- Provide a SAGE course pre/post survey

2025 Spring Adding Sustainability-Inclusive courses

- Early adopters and initial cohort begin to offer sustainability across disciplines
- Assessments for sustainability activities, assignments, etc. deployed for SAGE participants and students
- Development of repository for SAGE instructional resources.
- Provide a survey for students w/in sustainability-inclusive courses

2025 Fall and beyond SAGE Course Institutionalization and Expansion

- Biennial symposium of SAGE innovators across the District
- SAGE repository made available across campus via Canvas.

[1] Existing course of records (CORs) were initially used to survey sustainability-inclusive courses. In future data reports, a self-reporting instrument will be used to determine the number of FC sustainability-inclusive courses

[2] Reducing inequality is embedded in the United Nations Sustainable Development Goals (UNSDGs). Most directly, SDG 10 aims by 2030 to "empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status" (UN, 2020a). Additionally, Goal 8 calls to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all," while Goal 16 focuses on promoting "peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels" (UN, 2020a). The importance of sustainability and social justice has been emphasized in several documents, including the United Nations Declaration on the Rights of Indigenous Peoples adopted by the United Nations General Assembly on September 13, 2007 (UN, 2020b), as well as the Principles of Environmental Justice (NRDC, 2016).

A2 NOCCCD SUSTAINABILITY INITIATIVE PROPOSAL

NOCCCD Sustainability Initiative:
A Proposal for Sustainability Training and Engagement

Proposal overview & objective

The Sustainability Committees at Fullerton College and Cypress College recommend that NOCCCD integrate sustainability training, education, and engagement in its programming across all campuses via a districtwide Sustainability Initiative. The Sustainability Initiative would support three faculty fellows, one from each respective campus, dedicated to helping faculty and staff to learn about sustainability and to incorporate sustainability principles in and beyond the classroom.

Planning reference

AP 3580 Environmental Sustainability, 3.0 Education and Training:

"The District will model sustainability learning and practice by supporting faculty and appropriate shared governance bodies in the development of curriculum, programs, and co-curricular educational opportunities that prepare students to understand environmental issues and address environmental sustainability challenges. Colleges shall adopt sustainability-related institutional level learning outcomes and offer sustainability-focused courses, degree programs, or concentrations. The District will provide each respective campus with resources for professional development for faculty and staff to learn and incorporate principles of environmental sustainability in and beyond the classroom."

Existing models

The NOCCCD DEIA PIE Series and DEIA Faculty Fellows provide a successful existing model for districtwide training and education that can be reproduced for addressing sustainability needs. The following models were considered as existing frameworks. The Sustainability Committees at Fullerton College and Cypress College recommend that the Sustainability Initiative replicate existing district DEIA efforts.

Supporting Learning & Training: Models for the Sustainability Initiative

	NOCCCD Sustainability Initiative	Mt SAC Sustainability Coordinator	NOCCCD DEIA Faculty Fellows	Mindful Growth Initiative
Workload type	professional expert contract	release time	professional expert contract	release time/ professional expert contract
Workload hours	up to 10 hrs per week	4 units per semester	up to 15 hrs per week	X hours for Canvas course development, X release time for program management
Funding source	District	Ongoing personnel funds	District	Guided Pathways (?)
Personnel & selection	faculty/ NOCCCD selection	faculty/ FACSEN appointment	faculty/ NOCCCD selection	faculty/ N/A

Sustainability Faculty Fellows

*adapted from NOCCCD DEIA faculty fellow recruitment

Sample Recruitment

The NOCCCD Staff Development is looking for tenured faculty members to fill the Sustainability Fellow positions at Fullerton College, Cypress College, and NOCE. The contract will begin on January 1, 2023 and run through June 30, 2023, with the opportunity for annual renewals. The Sustainability Fellow will be compensated through a professional expert contract. Although primarily assigned to each respective college, this position will be expected to work on District-wide initiatives, and when necessary, may be required to travel to the District Office, Cypress College, and NOCE campus sites.

Duties of Sustainability Fellows

The primary duties of the position include the following:

- Development of training opportunities to help faculty and staff learn about and integrate principles of sustainability in their respective curriculum and areas of work.
- Integrating ongoing sustainability training with existing Staff Development opportunities in each respective campus, including training offered by the American Association for Sustainability in Higher Education (AASHE).
- Assisting with the Future Instructor Training Program.
- Develop and deliver training and seminars for faculty and staff on sustainability. This includes assisting in organizing and advertising educational opportunities for Earth Week events (week of April 22nd, International Earth Day).
- Promoting sustainability efforts throughout the District. This may include collaborating with sustainability programs and committees, initiating operational activities at the campus-level, providing campuses with advice and mentoring, and providing input in campus and District sustainability efforts.

Sustainability Fellows will also be expected to do the following:

- Attend Academic Senate meetings acting as a liaison between the Academic Senate and the Sustainability Initiative from NOCCCD Staff Development.
- Attend monthly Sustainability Fellow meetings.
- Attend monthly meetings of the Sustainability Committee.
- Develop a collaborative and collegial relationship with campus leadership and programs and committees focused on sustainability.

Compensation and Hours

The Sustainability Faculty Fellow will work 8 hours per week under the direction of the District Director for Staff Development, respective Sustainability Directors, and in collaboration with respective Sustainability Committees at each campus. The faculty fellow will be paid as a 20% reassigned time position or through a professional expert contract, with an anticipated payment rate of $55/hr.

Qualifications

The Sustainability Faculty Fellow should be a tenured faculty member with demonstrated training in environmental sustainability and experience in successfully leading and/or implementing programs and activities related to environmental sustainability.

Desirable qualifications:

- Excellent presentation skills
- Knowledge of concepts and pedagogy in environmental justice and intersectional environmental sustainability
- Expertise in sustainability education: namely climate change, environmental justice, and urban environmental sustainability
- Experience in advocating for sustainability/environmental justice within higher education and/or beyond

How to Apply

Individuals interested in the Sustainability Faculty Fellow position should submit their resume/CV and a letter of interest addressing their qualifications for the position. Send submissions to ###, and type Sustainability Faculty Fellow in the subject line. For more information contact ###, District Director of Staff Development, at ###