Fullerton College
Campus Sustainability Plan

2023-2026

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CHAPTER 1: EXECUTIVE SUMMARY

The Fullerton College Sustainability Plan serves as the formal plan for the College to meet the sustainability goals outlined in AP 3580.

All documentation of references, studies, goals, and systems used to set the goals and vision of this Sustainability Plan are listed in Chapter 2.2. Chapter 7 includes transcribed excerpts of the referenced language in each document in full, along with hyperlinks to the originals for further context.

The Fullerton College Office of Sustainability will use the goals set by this plan as the baseline for its own departmental goals and objectives across the 2023/24, 2024/25, and 2025/26 fiscal years. Additionally, campus departments and committees which would have workload dedicated to goals in this plan have been included in its drafting and have agreed upon goals which pertain to their expertise. The Plan was drafted in workgroups including representatives of the Classified Senate, Faculty Senate, Associated Students, and departmental/committee representatives from the various focus areas addressed. The following individuals and campus entities helped to draft the plan, and have approved its goals as they pertain to their program areas;

Faculty Senate: Joshua Ashenmiller, Kristen Shedd, Jaime Perez, Roman De Jesus

Classified Senate: Kesha Shadwick, Oscar Navarro

Associated Students: Hailey Jackett, James Escobar

Departmental and Committee Representatives: Jeanne Costello, Denise Parra, Melissa Serrato, Megan Moscol, Randy Harris, Daniel Berumen, Jorge Gamboa

The goals of the sustainability plan are listed here for reference. For further detail on an individual goal and the reasoning behind it, please refer to the chapters of the plan they are listed under.

1.1 OPERATIONS GOALS

The operations goals of the Sustainability Plan center around minimizing the college's footprint on the local community and the global environment as a whole. The Office of Sustainability will;

1. Benchmark and maintain an annual record of all emission sources on campus, including purchased electricity, gas, and generated solar.

2. Work with NOCCCD to complete a district-wide greenhouse gas inventory using the data collected.

3. Carry out the district-approved PPA for a solar project on Lot 5 which will generate 998kW of solar production annually.

4. Benchmark energy usage on a per-building basis using data collected from the new submeter systems.

5. Create an inventory and conduct an Effective Useful Life (EUL) analysis of all equipment and appliances on campus which consume natural gas, as well as a listing of cost estimates and differences of the electric equivalents.

6. Work with District entities, and the vendor selected by their RFP to draft a NOCCCD Sustainability Plan, to ensure a clear path is provided on how district properties are to be maintained with a green building rating system.

7. Establish a baseline of current sustainably and ethically produced and/or plant-based food purchase levels.

8. Establish a data reporting pipeline between district food vendors and the Office of Sustainability to catalog food waste prevention measures.

9. Work with NOCCCD purchasing and facilities entities to minimize single-use plastics in the Fullerton College Dining Hall.

10. Collaborate with the Horticulture Department to identify important action items related to pest management, as well as any approved plants on campus which may be dangerous to the local ecosystem. Identify replacements, ideally Southern California native species options.

11. Work with Campus Grounds to quantify pest management items such as fertilizer purchases and pest management practices for STARS recordkeeping.

12. Bring identified invasive species and recommended Southern California native species options to Capital Projects and Facilities in order to make decisions about control, replacement, and biodiversity.

13. Hold awareness campaigns to encourage the use of campus EV charging infrastructure to students, as well as to increase the utilization of OCTA bus services already included in their fees.

14. Monitor existing EV charging station utilization to determine when additions are necessary. Work with SCE to secure funding to expand charging capacity when required.

15. Provide guidance to Facilities to ensure electric and hybrid options are considered first for fleet vehicle replacements, when financially feasible and appropriate to perform the tasks required.

16. Work with District entities and the municipal water provider to ensure data is delivered in a timely manner to the Office of Sustainability and Facilities.

17. Work with Facilities and Capital Projects to research and identify cost-effective solutions to including LID practices into future development on campus.

1.2 EDUCATION AND TRAINING GOALS

The education and training goals of the Sustainability Plan involve preparing the students of our institution to handle the challenges of our rapidly changing environment and prepare them to be leaders for our future. The Office of Sustainability will;

1. Collaborate with the Faculty Senate and the SLO Committee next time the ISLOs are changed to update 3B: Global Systems and Civic Responsibility with updated sustainability language. This updated language would broaden its scope to make the goal more easily applicable to programs across multiple subject matters.

2. Work with District Professional Development resources and the Sustainability FIG members to identify solutions to contextualizing the online course's outcomes to specific program areas.

3. Meet with the Curriculum Committee to work towards how to best streamline the process of adding and changing courses in order to increase our inventory of sustainable courses.

4. Meet in-person with program areas across campus in order to identify their needs and goals related to sustainability, as well as to discover sustainability-inclusive courses not yet reflected in the course outlines of record.

5. Work with District entities to establish funding for a Flex Day keynote every 3 years focused around sustainability. Each cycle should include different sustainable themes to diversify the information and keep the event interesting for retention.

1.3 CAMPUS AND COMMUNITY ENGAGEMENT GOALS

The campus and community engagement chapter of the Sustainability Plan seeks to help grow community in and around campus and the local community and provide outcomes for students which are not covered in standard curriculum. The Office of Sustainability will;

1. Connect with Promise, EOPS, Veterans, Online, and any other discovered first-year experiences to provide materials and offer presentations to their orientation events.

2. Provide a detailed plan for the implementation of a community garden, including construction, staffing, and production distribution for excess produce.

3. Meet with the Fine Arts Division in Fall 2023 to discuss the logistics of sustainability-themed art installations on campus.

4. Establish a social media presence to provide updates to the campus community more often than the sustainability website could.

5. Update the campus sustainability website to provide the campus's STARS data, as well as other resources to advance community knowledge of sustainability.

6. Regularly attend Associated Students meetings to provide updates on campus sustainability initiatives and provide a forum for feedback and input.

7. 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.

8. Draft a survey by the end of the 2023 calendar year which will seek to understand the following student mindsets;

    a. Knowledge and literacy on current sustainable topics and challenges.
    b. Sustainable values, beliefs, behaviors, and commuting patterns.
    c. Awareness of campus sustainability initiatives.

9. Administer the survey on a 3-year cycle to align with the STARS reporting cycle.

10. Research best contacts for environmental initiatives within local school districts and colleges and establish intercampus relationships to seek common goals to strive for.

11. Research local organizations with opportunities for career growth in sustainability and/or volunteer opportunities open to students and establish connections with them to direct interested students to their services.

12. Stay informed and attentive to local, state, and national policies, programs, and news which will affect Fullerton College's sustainability efforts.

13. Identify which policies and programs should be publicly supported or opposed by NOCCCD.

14. Work with the District Public & Governmental Affairs Office to vet the policies or programs for support or opposition.

1.4 PLANNING AND ADMINISTRATION GOALS

The planning and administration chapter of the Sustainability Plan aim to integrate sustainability into our highest planning processes and create a permanent Office which can fulfill the goals of this plan. The Office of Sustainability will;

1. Create a position for a permanent Director of Sustainability to start in July 2025 as to not have a break in service after the Special Projects contract ends.

   a. To draft a position description for a Director of Sustainability based on the goals of this plan.
   b. To draft a budget for the Office of Sustainability that fulfills the goals of this plan.
   c. To have the Board of Trustees approve the position and departmental budget.

2. Have the Office of Sustainability be represented in the Institutional Integrity Committee's Strategic Planning process ahead of the next refresh in 2025.

3. Work with District planning entities and sustainability-focused staff across the District to integrate sustainability into the highest levels of District Master Planning.

4. Complete a STARS Update report in Fall 2025 to include all of the changes made by the institution since the 2022 report was completed.

5. Submit the completed 2025 STARS Report to a peer institution for independent verification, followed by submitting to AASHE for an official rating.

6. Channel the funding from the Enrollment and Re-Engagement Plan into outcomes determined by the EJ Study with an emphasis on initiatives which bring students back to campus.

7. Analyze the results of the Employee NACCC Climate Survey to see if any disadvantaged results are the direct impact of environmental injustices and request District funding where applicable to help address inequities.

CHAPTER 2: METHODOLOGY AND REFERENCES

2.1 METHODOLOGY

The Fullerton College Sustainability Plan is the culmination of the Special Projects Director of Sustainability's goals and objectives set by the VPAS in 2021. The District set goals for the campuses to achieve, including the creation of such a plan, as part of AP 3580 in 2022. Starting in the Fall of 2021, the Office of Sustainability initiated a data collection process across all areas of the campus; Academics, Operations, Engagement, and Administration, for a reporting tool called the Sustainability Tracking and Rating System (STARS). STARS was the framework upon which AP 3580 was drafted, so it gave the campus a framework for what needed to be achieved in order to meet the goals set by the District.

In October and November of 2022, the Director of Sustainability brought the results of the STARS data collection process to the Classified Senate and Faculty Senate, and requested appointees be named for workgroups to meet in Spring 2023. These workgroups, one each for Operations, Education and Training, Campus and Community Engagement, and Planning and Administration, drafted each respective chapter of this plan through careful review of the District goals and current data.

2.2 REFERENCED DOCUMENTATION

The following documents were used as the framework for this Sustainability Master Plan. An explanation of how each was referenced is below along with hyperlinks to the documents in full online. Relevant sections of each document are transcribed in Chapter 7 of this document for reference on physical copies.

2.2.1 Board Policy 3580 Sustainability Plan (2021)

On May 26, 2021, the NOCCCD Board approved BP 3580, committing the district to work towards minimizing the ecological footprint of its institutions in the areas of waste, energy generation and reduction, efficient building construction, environmental education, and the development of partnerships.

Additionally, BP 3580 commits the district to maintain and continue to evaluate a Sustainability Plan that monitors these goals, and that there would be periodic reporting by the Chancellor to the Board as to their progress.

2.2.2 Administrative Procedure 3580 Environmental Sustainability (2022)

After the passing of BP 3580, a subsequent Administrative Procedure, AP 3580, was also approved in February 8, 2022. This document is to provide the guidelines for implementing the stated principles of sustainability into the campuses of NOCCCD. When fiscally and operationally feasible, the district set goals to meet or exceed statewide policies, targets, and goals relevant to sustainability.

As a framework for the AP, the Sustainability Tracking, Advancement, and Rating System (STARS) designed by Association for the Advancement of Sustainability in Higher Education (AASHE) was used, as well as the United Nations Sustainable Development Goals. The STARS framework divides an institution's sustainability efforts into four categories; Operations, Education and Training, Community Partnerships and Engagement, and Planning and Administration. This Plan will follow the same structure moving forward to be consistent with AP 3580 and the STARS framework

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2.2.3 Environmentally Disadvantaged: Understanding Fullerton College Students' Geographies of Access to Fresh Foods, Green Spaces, and Clean Environments (2022)

After the commitment to antiracism by Fullerton College in 2020, this study was done as a means of locating geographies of environmental disadvantage – those without access to fresh foods, green spaces, or clean environments, and identifying Fullerton College student populations which live in these areas. The report found that thousands of our students lived in these areas of environmental disadvantage, disproportionately our Black and Latinx communities.

The recommendations of this report were adopted by the Institutional Integrity Committee in the latest update of the Fullerton College Goals, Objectives, and Institution Set Standards, and funding has been provided to help alleviate student equity outcomes via the Enrollment and Re-Engagement Plan. Which outcomes will be addressed can be found in Chapter 6.4.1 of this plan.

2.2.4 Fullerton College Institutional Student Learning Outcomes

The College's ISLOs are intended to reflect what students should graduate knowing by the end of their time in our programs. ISLO 3 states that students should be able to demonstrate an understanding of the world. More specifically in 3B, students should also be able to evaluate the impact human activity has on the natural world and how the natural environment has an impact on the well-being of humanity.

These outcomes are important to our students' understanding of the campus commitment to the environment, and are an important piece of documentation for Sustainability and the goals of the AP and this plan to be included within. For more information on this, see Chapter 4.1 of this plan.

2.2.5 Fullerton College Goals, Objectives, and Institution Set Standards

The 2023 update of the Fullerton College Goals has two new inclusions relating to sustainability, Goals 3 and 4. To strengthen connections with its community, Fullerton College has stated the objective to use the Environmentally Disadvantaged report (2.2.3) to serve environmentally disadvantaged students and employees via the implementation of environmental justice projects. Additionally, the development and implementation of this plan is recommended under the goal of continuous quality improvement. This document is not yet available online, so the exact wording of these goals is included in chapter 7.5.

2.2.6 Fullerton College Landscape and Exterior Improvements Standards

The Fullerton College Landscape and Exterior Improvements Standards from 2020 provide a list of acceptable and non-acceptable plant materials to be used for grounds cover. It indicates that the list should eliminate materials found non-sustainable, and those which require excessive water consumption. This list is only editable with approval from District Leadership. As part of the Office of Sustainability's goals on landscape and biodiversity in chapter 3.4, this document will be reviewed for invasive species and be given recommendations for replacement from identified native species, or species of ethnobotanical importance. As this document is not available online, a full list of the currently recommended species is included in chapter 7.6.

2.2.7 California Community Colleges Chancellors Office Climate Action and Sustainability Goals (2021)

The CCC Chancellors Office submitted these goals as more specific action items to meet the Framework presented by the CCC Board of Governors two years prior. They set sustainability goals for the entire CCC system in 2025, 2030, and 2035, ranging from greenhouse gas reduction to food systems. While exclusively setting goals in the STARS category of Operations, this set of objectives inspired action for AP 3580 to be developed and implemented at NOCCCD, and will likely be analyzed further as future goals to set when revisiting this Sustainability Plan in 2026.

2.2.8 California Community Colleges Board of Governors Climate Action and Sustainability Framework (2019)

The CCC Board of Governors Framework is one of the source documents for AP 3580, designed to prompt discussion among Community College Districts state-wide on how to leverage their footprint to advance sustainability. While mainly focused on Operational sustainability, the Framework serves as a jumping off point for the discussions around Sustainability in CCD's, and as such is important in starting that conversation.

2.2.9 Association for the Advancement of Sustainability in Higher Education Sustainability Tracking, Assessment, and Rating System (STARS)

The STARS program allows for higher education institutions to compare their sustainability efforts and share best practices through a dedicated network of data collection and support. Fullerton College has used STARS as a method which to collect its baseline data for understanding "where we are" on campus, in an attempt to understand which direction the campus should push to meet the goals of AP 3580.

2.2.10 Fullerton College Enrollment and Re-Engagement Plan

In an effort to re-engage the campus and help bring back enrollment to pre-pandemic levels, Fullerton College has received funding for Enrollment and Re-Engagement. The approved plan for its allocation has allotted $110,000 over 5 years to the Sustainability Committee to

address the needs and objectives outlined in the Environmentally Disadvantaged Report (2.2.3). This plan's goals related to environmental justice and student engagement, which are strongly influenced by the objectives identified in the Environmentally Disadvantaged Report, seek to identify uses for the funding provided to meet those outcomes.

2.3 ACRONYMS

AASHE: The Association for the Advancement of Sustainability in Higher Education

AP: Administrative Procedures

AS: Associated Students

BESS: Battery Energy Storage Systems

BP: Board Policy

BYO: Bring Your Own

CCC: California Community Colleges

CCDs: Community College Districts

DER: Distributed Energy Resources

EOPS: Extended Opportunity Programs and Services

EPA: Environmental Protection Agency

EUI: Energy Use Intensity

EUL: Effective Useful Life

EV: Electric Vehicle

FIG: Faculty Inquiry Group

GIS: Geographic Information System

IIC: Institutional Integrity Committee

ILFI: International Living Future Institute

IPM: Integrated Pest Management

ISLO: Institutional Student Learning Outcomes

LID: Low Impact Development

M&O: Maintenance and Operations

NACCC: National Assessment of Collegiate Campus Climates

NOCCCD: North Orange County Community College District

OCTA: Orange County Transportation Authority

PAC: President's Advisory Committee

PPA: Power Purchase Agreement

STARS: AASHE's Sustainability Tracking and Rating System

UHSD: Union High School District

USDA: United States Department of Agriculture

VPAS: Vice President of Administrative Services

2.4 DEFINITIONS

Academics/AC (STARS):

This subcategory seeks to recognize institutions that have formal education programs and courses that address sustainability.

Engagement/EN (STARS):

This subcategory seeks to recognize institutions that provide their students with sustainability learning experiences outside the formal curriculum and that help catalyze sustainable communities through public engagement, community partnerships and service.

Environmental Justice (EPA):

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This goal will be achieved when everyone enjoys:

- The same degree of protection from environmental and health hazards, and

- Equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

Greenhouse Gas (STARS):

Scope 1 GHG Emissions: 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 GHG Emissions: 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.

Invasive Species (USDA):

According to the USDA's National Invasive Species Information Center, an invasive species is a species which is:

1) non-native (or alien) to the ecosystem under consideration and,

2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Operations/OP (STARS):

This subcategory seeks to recognize institutions that are: measuring and reducing their greenhouse gas and air pollutant emissions, taking steps to improve the sustainability performance of their buildings, reducing their energy consumption through conservation and efficiency, switching to cleaner and renewable sources of energy such as solar, wind, geothermal, and low-impact hydropower, supporting a sustainable food system, planning and maintaining their grounds with sustainability in mind, moving toward sustainable transportation systems, and conserving water, making efforts to protect water quality and treating water as a resource rather than a waste product.

Planning and Administration/PA (STARS):

This subcategory seeks to recognize colleges and universities that are institutionalizing sustainability by dedicating resources to sustainability coordination, developing plans to move toward sustainability, and engaging stakeholders in governance, working to advance diversity and affordability on campus, and have incorporated sustainability into their human resources programs and policies.

Special Projects Director (NOCCCD):

This position exists under the direction of the responsible campus-level administrator and performs comprehensive campus/district administrative direction of designated special project(s).

Sustainability (AASHE):

AASHE defines sustainability in a pluralistic and inclusive way, encompassing human and ecological health, social justice, secure livelihoods, and a better world for all generations. STARS attempts to translate this broad and inclusive view of sustainability to measurable objectives at the campus level. Thus, it includes performance indicators related to, for example, ecological integrity, social and economic justice, and democratic governance. Today most uses of and references to sustainability emphasize the concept's simultaneous environmental, social, and economic dimensions

Sustainability-Focused Courses (AASHE):

To count as sustainability-focused, the course title or description must indicate a primary and explicit focus on sustainability. This includes:

- Foundational courses with a primary and explicit focus on sustainability (e.g., Introduction to Sustainability, Sustainable Development, Sustainability Science).

- Courses with a primary and explicit focus on the application of sustainability within a field (e.g., Architecture for Sustainability, Green Chemistry, Sustainable Agriculture, Sustainable Business). As sustainability is an interdisciplinary topic, such courses generally incorporate insights from multiple disciplines.

- Courses with a primary and explicit focus on a major sustainability challenge (e.g., Climate Change Science, Environmental Justice, Global Poverty and Development, Renewable Energy Policy). The focus of such courses might be on providing knowledge and understanding of the problems and/or the tools for solving them.

The course title or description does not have to use the term "sustainability" to count as sustainability- focused if the primary and explicit focus of the course is on the interdependence of ecological and social/economic systems or a major sustainability challenge. If the course title and description do not unequivocally indicate such a focus, but it is evident from the course description or syllabus that the course incorporates sustainability challenges, issues, and concepts in a prominent way, the course may qualify as sustainability-inclusive.

Sustainability-Inclusive Courses (AASHE):

To count as sustainability-inclusive, the course description or rationale provided in the course inventory must indicate that the course incorporates a unit or module on sustainability or a sustainability challenge, includes one or more sustainability-focused activities, or integrates sustainability challenges, issues, and concepts throughout the course.

While a foundational course such as chemistry or sociology might provide knowledge that is useful to practitioners of sustainability, it would not be considered “sustainability-inclusive” unless the concept of sustainability or sustainability challenges and issues are specifically integrated into the course. Likewise, although specific tools or practices such as GIS (Geographic Information Systems) or engineering can be applied towards sustainability, such courses would not count unless the description or rationale provided in the inventory clearly indicates that sustainability is integrated into the course.

CHAPTER 3: OPERATIONS

The Operations section of this report seeks to center the college's goals around minimizing its footprint on the local community and the global environment as a whole. Our campus's core values stand around enhancing the well-being of our campus and the surrounding area, as well as accepting responsibility for the betterment of the world around us.

As a college, our main environmental footprint is our buildings, which should be maintained and powered in such a way that they protect the health of the building occupants, as well as of the world at large. The reduction of our consumption of energy and water, as well as our commitment to biodiversity in our landscape design, hopes to minimize our impact to the local environment and maximize the mental health and well-being of the campus occupants.

We must also accept that Fullerton College does not exist in a vacuum, and that our secondary impacts are real and must be addressed. What we choose to purchase, as well as its source, matter just as much to what our footprint is as the operation of the buildings themselves. Additionally, our position as a commuter school means that we are also responsible for acknowledging the emissions produced by students who must attend classes or receive services in-person.

3.1 AIR, CLIMATE, AND ENERGY

Fullerton College seeks to protect itself from utility rate volatility via a shift to renewable energy sources. In a perfect world, the campus would convert to 100% on-site generated power to completely remove itself from the grid, but due to the nature of the campus's land-locked status, that is not feasible. The most solar production likely possible on the campus currently would offset just shy of 40% of the campus load.

That being said, the campus still seeks to reduce its carbon emissions as much as possible. In the years to come, this will be likely in the form of a shift to purchasing from cleaner sources for what we cannot generate on campus, as well as removing our dependence on sources which cannot be purchased cleanly, such as natural gas. For the purposes of a three-year assessment, the college's sustainability goals related to air, climate, and energy will be:

- Benchmark and maintain an annual record of all emission sources on campus, including purchased electricity, gas, and generated solar.
- To work with NOCCCD to complete a district-wide greenhouse gas inventory using the data collected.
- To carry out the district-approved PPA for a solar project on Lot 5 which will generate 998kW of solar production annually.

3.1.1 Greenhouse Gas Inventory

AP 3580 recommends all district entities complete, maintain, and update greenhouse gas inventories from both Scope 1 (owned/controlled sources) and Scope 2 (purchased electricity) every three years. However, due to the centralization of the district's purchased utilities, Fullerton College recommends a singular greenhouse gas inventory be done for the district as a whole. It is the Office of Sustainability's goal to **benchmark and maintain record of the inputs** to this report on an annual basis as to ease the data collection process for district reporting.

3.1.2 Energy Consumption and Benchmarking

NOCCCD recommends all District entities benchmark their energy consumption and minimize their operational energy use. Fullerton College uses EnergyStar Portfolio Manager to benchmark its consumption, with data dating from 2015. With this data, we can see that the College's Energy Use Intensity (EUI) has increased around 7.5% compared to the 2015 baseline.

It is the Office of Sustainability's recommendation that the District's Greenhouse Gas Inventory **includes an assessment of source energy** and deliver recommendations on how to move forward with decreasing energy consumption on a per-square-foot basis.

3.1.3 Renewable Energy

Anser Advisory recently completed a DER / Solar Feasibility Study of the Fullerton College campus in 2021. This report found room on our campus for 3.12MW of solar capacity on campus, which would offset 39% of the campus consumption load. The estimated cost of a full-scale project like this would be $12.7 million. Due to the limited space on campus, and therefore limited capacity and export, it was not recommended that we pursue battery energy storage (BESS) at this time.

Following this report, Fullerton College has chosen to contract ForeFront Power to provide a Power Purchase Agreement (PPA) for a 998kW system to be installed at Lot 5. This system will provide roughly a 15% annual offset of our electrical consumption, and will be paid for via the PPA for 20 years, wherein the campus will purchase the electricity generated by the system from ForeFront Power in exchange for not having to purchase the system outright. The estimated 20-year savings is between $1.8 and $2.1 million dollars. The Office of Sustainability will **manage this contract and oversee the construction process**, due for Summer 2024.

3.2 BUILDINGS

Fullerton College's building portfolio is, like most other campuses, the largest source of energy consumption on the grounds, and therefore greenhouse gas emissions. Our campus has historically had a difficult time assessing the consumption of any individual building due to the lack of a disaggregated metering system, something that has been addressed by the facilities department as of 2023. As such, we will soon be able to benchmark energy usage intensity on a by-building basis and make smarter decisions about reduction decisions moving forward.

With the goal of increasing its usage of clean energy sources, in conjunction with a push for producing its own energy, Fullerton College should seek to remove natural gas sources as much as feasible. However, the Office of Sustainability recognizes the financial hurdles related to replacing a multitude of large appliances in one batch, as well as the environmental impact of purchasing new materials when old systems still have life in them. In recognition of this, the three-year sustainability goals of the college related to buildings will be:

- To benchmark energy usage on a per-building basis using data collected from the new submeter systems.
- To create an inventory and conduct an Effective Useful Life (EUL) analysis of all equipment and appliances on campus which consume natural gas, as well as a listing of cost estimates and differences of the electric equivalents.
- To work with District entities, and the vendor selected by their RFP to draft a NOCCCD Sustainability Plan, to ensure a clear path is provided on how district properties are to be maintained with a green building rating system.

3.2.1 Electrification

In the interest of moving the campus to 100% renewable energy consumption, it is recommended Fullerton College **perform an Effective Useful Life (EUL) analysis of all gas appliances and systems by 2026**. When financially and functionally feasible, these systems and appliances should be replaced by an electric equivalent so that as the campus transitions to generating its own electricity fully it may become energy independent.

3.2.3 Operations and Maintenance Certification

AP 3580 sets a goal that the District will construct, renovate, maintain, and operate its buildings according to a green building rating system in order to strive for ILFI zero energy certification. These building standards, and the budget required to achieve them, should be a district-wide conversation as a part of the NOCCCD Sustainability Plan starting development in 2023. The Office of Sustainability will be part of this planning process, and will **work to ensure the District provides a clear path** to standardizing its building maintenance according to a published green building rating system.

3.3 FOOD AND DINING

The Office of Sustainability acknowledges that food production has environmental impacts that reach far outside of the bounds of Fullerton College's physical footprint. The production of animal-derived foods has a significantly higher per-calorie environmental cost when compared to plant-based foods, and the transportation associated with food offerings sold on any campus is a contributing factor in the emissions it requires to operate.

For the purpose of reducing its environmental impact through its food and dining purchasing, Fullerton College recommends it and other district entities work with dining vendors **to catalog its plant-based purchases**, aiming to prioritize the future purchase of them whenever possible. Additionally, the district should enforce the **minimization standard for single-use plastics** present in AP 3580.

Finally, to minimize food waste on campus, Fullerton College encourages its food vendor to continue to **catalog its food waste prevention** through the LeanPath system, and provide that data to the Office of Sustainability for analysis and record purposes. The college cannot create goals for data it does not currently have access to. With this in mind, the three-year goals of the campus related to food and dining will be:

- Establish a baseline of current sustainably and ethically produced and/or plant-based food purchase levels.
- Establish a data reporting pipeline between district food vendors and the Office of Sustainability to catalog food waste prevention measures.
- Work with NOCCCD purchasing and facilities entities to minimize single-use plastics in the Fullerton College Dining Hall.

3.4 LANDSCAPE AND BIODIVERSITY

All 80 acres of Fullerton College's grounds are beautifully managed by the Campus Grounds team, including multiple sports fields, planters, and trees. Standards for the what plants are allowed to be used for decorating the grounds are kept in the College's Landscape Design Standards (2020). For the next STARS submission, the campus should keep specific items related to grounds management and campus biodiversity, namely pest management and fertilizer use, as well as the types of plants we use for ornamental purposes. The Office of Sustainability is not directly involved in the maintenance of the campus grounds, but over the next three years will;

- Collaborate with the Horticulture Department to identify important action items related to pest management, as well as any approved plants on campus which may be dangerous to the local ecosystem. Identify replacements, ideally Southern California native species options.
- Work with Campus Grounds to quantify pest management items such as fertilizer purchases and pest management practices for STARS recordkeeping.

- Bring identified invasive species and recommended Southern California native species options to Capital Projects and Facilities in order to make decisions about control, replacement, and biodiversity.

3.4.1 Grounds Management

AP 3580 recommends campuses will support and manage their grounds in accordance with an Integrated Pest Management (IPM) program, or by use of organic products. An IPM program would consist of setting action thresholds and monitoring systems to identify pests and removing them through solutions best suited to protecting people and the environment. Organic pesticides and fertilizers should be standard on campus whenever possible.

The Office of Sustainability will partner with the Horticulture Department and Campus Grounds over the next three years to **track specific action items related to pest management**, namely pest control product sourcing and usage, but also fertilizer and general pest control practices and methodologies.

3.4.2 Landscape Design

NOCCCD Campuses are asked to integrate climate adaptive native species into their landscape design decisions by AP 3580 as well. In this regard, at least 7 species out of a total 59 recommended in the College's 2020 Landscape Design Standards are native to Southern California. Unfortunately, an additional 3 species identified in these Standards are designated by the State of California as potentially invasive species.

For the future, the Office of Sustainability would like to review these Landscape Standards with the Horticulture Department to **assess the risk identified of potentially invasive species** for the campus and for the local ecosystem. Identified problem species will then go through Facilities and Capital Projects for approval to remove from the Standards.

3.5 TRANSPORTATION

Fullerton College is a strictly commuter campus, meaning that its emissions footprint extends to what is being produced from its constituents in their arrival to the campus. There are programs in place to collect data about employee commuting, but none for student commuting. This will be addressed in Chapter 5: Campus and Community Engagement of this document as part of our Sustainable Culture Survey.

AP 3580 recommends the district implement strategies to encourage sustainable forms of transportation based on the commuting data they collect. In terms of increasing the utilization of these alternative transportation options, students are generally aware of their ID cards having access to the OCTA bus service free of charge, but the EV charging stations around campus are seen as being only for staff. As EV adoption goes up in California and our charging infrastructure increases, there should be **campaigns to increase awareness** of these and the bus services being available to the student body at large.

Our campus fleet vehicles' lifespan is currently being monitored by the Facilities Department, with **hybrid and electric vehicles being considered** in the conversation for replacing vehicles aging out. The upgrade must be financially feasible at the time when considering replacement options, and more importantly must be able to meet the performance requirements needed to perform the tasks it is assigned. As the fleet is electrified, there will be a need to **increase the EV charging capacity** for it. The new M&O Building is set to include the infrastructure required to support such an increase when the time comes. All this being considered, the Office of Sustainability's three-year transportation goals are;

- Hold awareness campaigns to encourage the use of campus EV charging infrastructure to students, as well as to increase the utilization of OCTA bus services already included in their fees.

- Monitor existing EV charging station utilization to determine when additions are necessary. Work with SCE to secure funding to expand charging capacity when required.

- Provide guidance to Facilities to ensure electric and hybrid options are considered first for fleet vehicle replacements, when financially feasible and appropriate to perform the tasks required.

3.6 WATER

According to the World Resources Institute's Aqueduct Water Risk Analysis, used by STARS to measure the efficacy of water reduction strategies based on geography, Fullerton College sits in the "High Risk" of water-based stress and scarcity. While we have reduced our water impact by 13% compared to the baseline of 2018, it is important that the College take measured steps to avoid contributing to local water scarcity more than it needs to for operations.

As a local municipality runs the College's water needs, the billing and available data is slower when compared to a regional entity like SCE, which we rely on for electricity. The delivery speed and availability of water data to campus entities which use it to make decisions should be increased then to ensure the campus has the information necessary during such emergencies.

Water reduction strategies do not start at maintenance however, and should be considered when beginning projects to ensure new construction impacts are done with low impact development in mind, keeping their water footprint to a minimum and helping avoid stormwater impacts in times of flooding. To start these conversations, the Office of Sustainability will;

- Work with District entities and the municipal water provider to ensure data is delivered in a timely manner to the Office of Sustainability and Facilities.

- Work with Facilities and Capital Projects to research and identify cost-effective solutions to including LID practices into future development on campus.

3.6.1 Water Usage Data

Unlike electricity and gas, the campus water bills are not immediately accessible to the Office of Sustainability or Facilities on a monthly basis. Because of this, our ability as a campus to react to sudden changes in usage is limited to the speed we can manually request and receive billing from the District. Therefore, as we work to analyze the impacts of water reduction strategies moving forward, the Office of Sustainability will work to **help set up accessible meter data** for campus entities, either via email or direct read.

3.6.2 LID Practices

AP 3580 recommends that along with tracking and maintaining data on water use, the District use green infrastructure and low impact development (LID) to reduce the impact of stormwater run-off. These strategies frequently increase the cost of construction and renovation projects which include them, however research should be done in tandem with the Facilities and Capital Projects teams to **identify cost-effective solutions** to including LID into future projects.

CHAPTER 4: EDUCATION AND TRAINING

The most important function of a higher education institution is the education of its students. The graduates of Fullerton College are the next generation of problem solvers, workers, and leaders who will need to operate in a world and environment that are rapidly changing due to the decisions of those who came before them. The Education and Training chapter of this plan seeks to recognize that as a learning institution, Fullerton College is uniquely positioned to make sure our graduates are prepared to handle these challenges in their lives, as well as equip them to be better leaders for our future.

If our students are to learn what they need to succeed in this unstable future, we must be prepared to teach them as well. It is important that the professional development goals of the institution be aligned with its learning outcomes, such that our staff and faculty are trained in currently accepted sustainability issues and standards.

Sustainability as a topic is not isolated to itself and the sciences, but a way of thinking about how we can continue to operate while treading as lightly as we can on this planet. What this means for any particular degree program is going to vary greatly, so our methods of passing down practices and education to our educators cannot be a one-size-fits-all approach, but one where we work with faculty to discover what sustainability means to their specific program.

4.1 LEARNING OUTCOMES

At the highest level, the Institutional Student Learning Outcomes (ISLOs) of the campus are intended to reflect what knowledge and skills graduates leave with. Currently under ISLO 3: Global Awareness there is a sustainability-related section under;

B. Global Systems and Civic Responsibility: Students will be able to interface with people from a variety of backgrounds and analyze different cultural beliefs and behaviors; and will be able to recognize important economic and political issues in the local community, the state, the country, and the world. ***Students will also be able to evaluate the importance of the natural environment to human well being and the impact of human activity on the well being of the global environment.***

The District recommends its colleges adopt sustainability-related institutional learning outcomes alongside their other academic initiatives. ISLO 3B is certainly sufficient for this, but could be made to be more specific in the next re-visiting of the outcomes. The impact of human activity on the global environment includes more than just the natural world, but also the effects unsustainable economic practices have on our collective quality of life in the built environment. The Office of Sustainability recommends that when the outcomes are updated it;

- Collaborates with the Faculty Senate and the SLO Committee next time the ISLOs are changed to update 3B: Global Systems and Civic Responsibility with updated sustainability language. This updated language would broaden its scope to make the goal more easily applicable to programs across multiple subject matters.

4.2 CURRICULUM DEVELOPMENT

As part of the 2022 STARS reporting cycle, the Office of Sustainability gathered data on the course outlines of record of all courses active in the Spring 2022 semester as baseline data for its sustainable course offerings. Of the 1,667 total courses analyzed for this inventory, 10 were found to be sustainability-focused courses, while another 36 were found to be sustainability-inclusive courses. These 46 courses were distributed among 17 of the 75 academic departments on campus. Currently then, Fullerton College's course catalog is recorded as having 2.8% of its courses as including sustainability among 22% of its academic departments.

The District AP 3580 promises support for the development of curriculum and programs that prepare students to understand sustainability and its challenges. A faculty inquiry group (FIG) has already been started in 2023 to create a standing online learning module designed for faculty members to learn how to incorporate sustainability into education across the board. Once this module is ready for faculty, **support systems should be created** to help to contextualize those sustainable lessons from the FIG for the programs they're being implemented into. After the online learning module launches, the Office of Sustainability will;

- Work with District Professional Development resources and the Sustainability FIG members to identify solutions to contextualizing the online course's outcomes to specific program areas.

- Meet with the Curriculum Committee to work towards how to best streamline the process of adding and changing courses in order to increase our inventory of sustainable courses.

- Meet in-person with program areas across campus in order to identify their needs and goals related to sustainability, as well as to discover sustainability-inclusive courses not yet reflected in the course outlines of record.

4.3 PROFESSIONAL DEVELOPMENT

While the FIG online course is under development, the College can work to incorporate sustainability development via avenues already present on campus. For instance, the Spring 2023 Sustainability Flex Day session provided an update on campus efforts to the faculty who attended, as well as providing an open forum for suggestions, requests, and questions about future projects.

The Office of Sustainability would like to continue to use the Flex Day to have these conversations and educate faculty, but not to overtake the event with sustainability year after year. It was recommended that, to keep in sync with the STARS reporting and Sustainability Planning cycle, that we include **different aspects of sustainability into the Flex Day keynote** presentation every 3 years. As such, in the next three years the Office of Sustainability will;

- Work with District entities to establish funding for a Flex Day keynote every 3 years focused around sustainability. Each cycle should include different sustainable themes to diversify the information and keep the event interesting for retention.

CHAPTER 5: CAMPUS AND COMMUNITY ENGAGEMENT

The goals set in the Community Partnerships and Engagement chapter of this plan aim to provide the students of Fullerton College with sustainable lessons and learning outcomes which do not involve the standard curriculum. Since the pandemic, the college's student life has been slowly returning to on-campus activities, and the Sustainability Office and other resource areas on campus must be ready to meet them and re-grow the community centered around our campus.

Additionally, this chapter seeks to locate external measures which can help the students of Fullerton College succeed in their lives as sustainability professionals, should they choose, or otherwise as ethical citizens of the planet. These measures may take the form of resources provided for career growth and learning for students, but should also include ways for the College, and by extension the District, to work with the local community to progress sustainability in more meaningful ways.

Sustainability on a college campus is at its most effective when the students, staff, and administrators can all agree on its importance and work together to implement measures we can all aspire to as a community. The impacts of our initiatives are felt the most locally, and Fullerton College should strive to be a leader in this regard.

5.1 CAMPUS SUSTAINABILITY INITIATIVES

In the 2022 STARS Report for the campus, Engagement was the lowest scoring metric. While our Operations and Administrative scores have been advancing energy efficiency and District policy, there hasn't been a major shift in culture among the campus as a whole to champion sustainability across student resource divisions and the greater campus community.

The Office of Sustainability plans to put a greater emphasis on its endeavors over the next three years to bring the rest of our community into the planning process and educate them on sustainable practices. The Office wants to amplify student voices and concerns and provide channels for feedback so that our goals and planning are in line with what the students see as important. With this in mind, the three-year goals for campus initiatives and resources will be for the Office of Sustainability to:

- Connect with Promise, EOPS, Veterans, Online, and any other discovered first-year experiences to provide materials and offer presentations to their orientation events.
- Provide a detailed plan for the implementation of a community garden, including construction, staffing, and production distribution for excess produce.
- Meet with the Fine Arts Division in Fall 2023 to discuss the logistics of sustainability-themed art installations on campus.
- Establish a social media presence to provide updates to the campus community more often than the sustainability website could.

- Update the campus sustainability website to provide the campus's STARS data, as well as other resources to advance community knowledge of sustainability.

- Regularly attend Associated Students meetings to provide updates on campus sustainability initiatives and provide a forum for feedback and input.

- 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.

5.1.1 Orientation

Any sustainability-themed campus initiatives and campaigns the College attempts to pursue will only go as far as the campus culture around sustainability allows. A campus's orientation activities are often one of the first experiences incoming students have with the campus as a whole, and as such set the tone for what the institution stand for, as well as the campus experience as a whole.

At Fullerton College, we have multiple different orientations for different subsects of incoming students, making implementation of a single sustainability-themed orientation activity or presentation a challenge. However, the Office of Sustainability can attempt to reach as many students as it can by working with the organizers of these fragmented orientation experiences to include sustainability-based material into each of their programs.

The Office of Sustainability will **connect with each of the incoming student experiences**, including Promise, EOPS, Veterans, Online Orientation, and any others if discovered, to provide materials and offer presentations for their events.

5.1.2 Community Garden

Both the Office of Sustainability and the Sustainability Committee have had planning sessions with different groups within the campus community to discuss what the community wants in terms of sustainable initiatives around the campus. A community garden comes up the most regularly behind increased recycling resources.

Logistically speaking, this project will likely be difficult due to the cyclical nature of the community college system. With students being on campus for only two years at a time, the onus of maintenance will fall on full-time campus resources. This is best served in the form of an hourly staff member, placed either under Facilities or Sustainability. Additionally, if such a garden has regular production of produce, the college needs to be prepared to find channels to distribute the excess to, whether that take the form of supplementing campus dining services, stocking the campus food bank, a compost system, or a combination of the three.

The Office of Sustainability will research the most viable **solution to a campus community garden by 2025**. This should include best locations, budget for construction and permanent staffing to maintain, as well as a list of produce distribution options.

5.1.3 Campus Resources

Presently, there are only two forums which our community can observe our sustainability initiatives on campus. One is the campus sustainability website, which houses both the Office of Sustainability and the Sustainability Committee. This includes meeting minutes, a calendar with Committee meeting dates as well as events, contact information, and video archives of previous presentations and symposiums. The other is to attend Sustainability Committee meetings, where public comments and input can be shared with the members there.

The Fullerton College Office of Sustainability will seek to improve its outreach to the campus community by **including a social media presence** highlighting campus sustainable achievements and events relating to sustainability. Additionally, the existing sustainability website should be updated to **include STARS information** from the 2022 report, as well as **other sustainability resources** to help students incorporate sustainability into their daily home lives.

5.1.4 Outreach Campaign

Once the goals set in 5.1.1 and 5.1.3 are complete, the next step to engaging the campus community will be through outreach campaigns with clear, measurable outcomes that have a positive impact on sustainability on campus.

Firstly, what kind of outreach campaign is done will depend on the interests and will of the student body. In order to better receive student input into this process, the Office of Sustainability will establish a connection with Associated Students to provide **regular updates to their meetings** with campus sustainability updates. This will provide student leadership more consistent input into sustainability on campus, as well as getting them involved and interested in the topic as a whole.

With Associated Student's support, the Office of Sustainability can set objectives for various **reduction and education campaigns**. These should be carried out through the student body as to feel more genuine, but with resources from this plan for signage, promotional materials, and other contextually significant purposes to the campaign in question. Objectives set in the campaigns must be measurable, and will be **monitored by the Office of Sustainability** to measure effectiveness.

5.2 SUSTAINABILITY LITERACY AND CULTURE ASSESSMENT

As described in AP 3580 Section 4.3- The district would like to conduct **regular assessment of sustainability campus culture** focusing on sustainability values, behaviors, beliefs, and community service. This is in line with STARS credits AC-6: Sustainability Literacy Assessment and EN-6: Assessing Sustainability Culture.

This survey will consist of three parts. The first will be to understand what students already know about sustainability and its challenges. This literacy assessment will allow educators and event planners on campus to understand what is redundant information and what needs to be taught to advance the community's understanding of climate change and related issues. Second, there will

be an assessment of sustainable values and behaviors. This culture assessment will see what the campus community values and wants to see improved in the upcoming planning cycles. Finally, the survey will ask students if they noticed advertisement and promotions for sustainability events, as well as campus infrastructure upgrades. This will show us where the community pays attention to our efforts and allows us to promote changes and news better in the future.

The results of these surveys will enable future planning around student priorities, as well as highlight areas the campus can improve in further sustainable education. Knowing this, the Office of Sustainability will;

- Draft a survey by the end of the 2023 calendar year which will seek to understand the following student mindsets;
    - Knowledge and literacy on current sustainable topics and challenges.
    - Sustainable values, beliefs, behaviors, and commuting patterns.
    - Awareness of campus sustainability initiatives.
- Administer the survey on a 3-year cycle to align with the STARS reporting cycle.

5.3 COMMUNITY PARTNERSHIPS

The College's impacts on the environment only go so far as our students and staff reach. While this is certainly powerful in our attempts to educate our students and optimize our campus's operational needs, environmental impacts are compounded when collaborating with other institutions and members of our local community.

As such, The Office of Sustainability will **work with local organizations** to create additional opportunities for environmental impact and learning our students can participate in. Connecting with the sustainability-tasked staff members from Cal State Fullerton, Fullerton Joint UHSD, Fullerton School District, and other educational institutions in the local area can also be impactful in combining and strengthening our efforts. In the next three years, the Office of Sustainability will;

- Research best contacts for environmental initiatives within local school districts and colleges and establish intercampus relationships to seek common goals to strive for.
- Research local organizations with opportunities for career growth in sustainability and/or volunteer opportunities open to students and establish connections with them to direct interested students to their services.

5.4 PUBLIC POLICY ADVOCACY

The District's public policy advocacy is done at the NOCCCD level, not on a by-campus basis. However, Fullerton College currently stands as the only one of the District properties with an Office of Sustainability to be a subject matter expert in regards to public policies which would support our campus sustainability. For this purpose, the Office of Sustainability has developed a partnership with the District Public & Governmental Affairs Office to search for and recommend

support for local, state, and national policies which may be beneficial to our campus sustainability efforts, or sustainability at a wider scale.

When local, state, or national policies and incentives are discovered over the next three years, the Office of Sustainability plans to **work with District entities to vet them**. If deemed appropriate for District support, their office will deliver advocacy pushes on Fullerton College's behalf. The Office of Sustainability will;

- Stay informed and attentive to local, state, and national policies, programs, and news which will affect Fullerton College's sustainability efforts.
- Identify which policies and programs should be publicly supported or opposed by NOCCCD.
- Work with the District Public & Governmental Affairs Office to vet the policies or programs for support or opposition**.**

CHAPTER 6: PLANNING AND ADMINISTRATION

The Planning and Administration credits of STARS are typically awarded for colleges which institutionalize sustainability by implementing it into the campus's highest-level planning processes. The passing of the 2022 AP 3580 for Environmental Sustainability, the hiring of a Special Projects Director for Sustainability, and the operation of an active Sustainability Committee put the district and the campus ahead of their peers in the CCD system in that regard.

However, there is still much work to be done to integrate these practices into the way the college operates from an administrative standpoint. By improving these planning processes and administrative positions, Fullerton College can be better prepared to follow up on its commitments to the environment and stand as a leader in its community in these regards.

Fullerton College should continue to incorporate sustainability-focused goals into its planning processes by integrating the Office of Sustainability into its decision-making processes at the highest levels, and by acknowledging that sustainability is an important part in its commitment to equity across its marginalized or underrepresented communities who stand to be impacted by climate change the most.

6.1 SUSTAINABILITY OFFICE

Fullerton College has a Sustainability Committee which reports to PAC that helps identify opportunities for the college to grow in its environmental efforts and makes recommendations for best practices. As the push for sustainability on campus grew, the committee secured one-time funding for a Special Projects Director for Sustainability. This position aimed to complete a STARS report, then use the data collected as a starting point for planning.

As of this plan's execution, this position will have roughly two years before the end of it's funding stream. The Committee does not have the hours necessary to coordinate the execution of the goals set in this plan. It is the recommendation of the standing Office of Sustainability that the Director seat, and by extension the office itself, be formalized moving forward. The VPAS will, upon board approval, hire a **permanent Director-level position for sustainability**, which will start July 2025. This position should be hired at a competitive rate for the State of California, and include a **budgeted office** which would address the goals set in this plan. The three-year goals for establishing an Office of Sustainability would be;

- To have the Director of Sustainability start in July 2025 as to not have a break in service after the Special Projects contract ends.
    - To draft a position description for a Director of Sustainability based on the goals of this plan.
    - To draft a budget for the Office of Sustainability that fulfills the goals of this plan.

- To have the Board of Trustees approve the position and departmental budget.

6.2 MASTER PLANNING

District AP 3580 indicates campuses should individually publish a Sustainability Plan that both includes measurable sustainability objectives and will be integrated into the college's Strategic Plan. The Strategic Plan was updated in early 2023, and has been published with sustainability in mind. The new goals and objectives of the College include developing, implementing, and assessing the outcomes of this specific plan, as well as identifying and implementing outcomes from the Environmental Justice Study to serve environmentally disadvantaged students and employees.

The next cycle to the strategic planning process is scheduled to happen in 2025. When this occurs, the sustainability objectives in it should be evaluated, and this **Sustainability Plan should be a point of reference** used by the Institutional Integrity Committee during that refresh.

The District Education and Facilities Master Plan operates similarly to the campus Strategic Plan in that it sets the goals and objectives of NOCCCD until the planning process. While the AP specifies that Campus Sustainability Plans should be integrated into the institution's Master Plan specifically, District level objectives are equally as important to the functions of the campuses. The Office of Sustainability recommends that staff focused on sustainability throughout the District be **consulted for input** into this planning process to create district-wide goals which each campus's Sustainability Plan may be integrated.

Goals and objectives set by this Sustainability Plan that exceed the authority or reach of the Office of Sustainability should be reviewed and integrated into the institution's Strategic Plan in compliance with AP 3580. As such, the three-year goals set by this plan in regards to master planning should be;

- To have the Office of Sustainability be represented in the Institutional Integrity Committee's Strategic Planning process ahead of the next refresh in 2025.

- To work with District planning entities and sustainability-focused staff across the District to integrate sustainability into the highest levels of District Master Planning.

6.3 STARS REPORTING

The College's last STARS data was collected for the 2022 Calendar Year, looking back to 2019 for pre-pandemic numbers. This data served as the starting point for the goals of this plan. As the STARS cycle is set for the report to expire every 3 years, the Office of Sustainability will work to update the data based on progress made by the goals of this plan on the same timeframe. Therefore, the next STARS data should be **collected based on the time from 2023-2025**. This data should be independently verified by a peer institution, and then submitted for further verification from AASHE in the form of a **full submission**. The goal of the Office of Sustainability for this 3-year cycle should then be to;

- Complete a STARS Update report in Fall 2025 to include all of the changes made by the institution since the 2022 report was completed.

- Submit the completed 2025 STARS Report to a peer institution for independent verification, followed by submitting to AASHE for an official rating.

6.4 DIVERSITY AND AFFORDIBILITY

The report on Fullerton College Students' Geographies of Access is referenced in the updated goals and objectives of the institution, stating that we should identify and implement environmental justice projects to serve the environmentally disadvantaged students and employees identified within. The Campus's Enrollment and Re-Engagement Plan has set aside a $25,000 annual fund for the purposes of addressing the outcomes of the EJ Study, in relation to increasing the enrollment of student populations who disproportionately left the College during the pandemic, as well as to increase the usage of basic needs support and belonging of students of color on campus. This annual funding will continue through the 3-year outlook of this Plan, and terminate at the end of the 2026/27 fiscal year.

The Enrollment and Re-Engagement funding will not cover outcomes relating to staff and faculty as they are affected by environmental justice inequities. The NACCC Climate Survey was administered in the Fall of 2022, and may include such findings of disadvantage. If such inequities are found, funding should be found to address them where they are caused by environmentally disadvantaged sources. Within the 3-year outlook of this plan then, the Office of Sustainability will;

- Channel the funding from the Enrollment and Re-Engagement Plan into outcomes determined by the EJ Study with an emphasis on initiatives which bring students back to campus.

- Analyze the results of the Employee NACCC Climate Survey to see if any disadvantaged results are the direct impact of environmental injustices and request District funding where applicable to help address inequities.

6.4.1 Environmental Justice Planning

Recommendations from this report all meet the identified outcomes of the Enrollment and Re-Engagement Plan. Using the funding provided through this plan, the Office of Sustainability and Sustainability Committee should work to increase campus resource access through an **overhaul of the mobile-web campus map**, allowing for easier identification and access to campus services such as the food bank, hydration stations, mental health services, and more. This should also include a **logistical help tool for transportation methods to campus**, which pulls from bus, train, and bike routes.

For enrollment and recruitment of these populations, targeted **"care mail"** can be implemented to send financial aid information to students not currently using it who live in disadvantaged areas. GIS tools can be used to identify these existing students, as well as local high school students, who can be **strategically advertised to about our support services** and financial help.

The last two recommendations of the EJ Study involve increasing campus partnerships, including community garden support, as well as improving and increasing the green spaces on campus. Both of these outcomes are addressed in earlier chapters of this report. For more information on partnerships and the community garden, see Chapter 5: Campus and Community Engagement. For more information on green spaces, see Chapter 3: Operations.

6.4.2 Employee NACCC Climate Survey

The NACCC climate survey for students on campus was administered and recorded as part of the District's efforts to assess student equity across the campus. The survey's results were recorded, and its outcomes acted upon. The survey was more recently distributed to staff in Fall 2022. While the outcomes of this report are not yet known, this should be included in the 2025 STARS report that will happen during the span of this plan's expected timeframe.

Once the NACCC survey results are returned, the Office of Sustainability should **analyze the results** to determine if anything is applicable to funding previously allotted for support services as addressed by the EJ Study. If any are applicable, the Enrollment and Re-Engagement funds will not be applicable to employee outcomes, so the Office of Sustainability will work with <who is in charge of these survey results> to attain District funding to improve the diversity, equity, affordability, and well-being of its employees **where intersectionality occurs with sustainability**.

CHAPTER 7: SOURCES AND DOCUMENTATION

7.1 Board Policy 3580 Sustainability Plan

North Orange County Community College District
BOARD POLICY
Chapter 3
General Institution

1.0 The North Orange County Community College District (NOCCCD) holds environmental sustainability to be a foundational principle in shaping the present and its vision of a future. As a responsible steward of natural resources and the environment, and in alignment with recommendations from the Board of Governors to California Community Colleges, NOCCCD will work towards minimizing the ecological footprint of its institutions by implementing best practices for conserving resources, reducing waste, implementing energy reduction and alternative energy generation strategies, constructing efficient buildings, promoting interdisciplinary environmental education in our campus communities, and developing partnerships that will further these activities.

2.0 The District shall maintain and continue to evaluate a Sustainability Plan that aims to monitor and achieve ongoing sustainability goals. The Chancellor shall report periodically to the Board on the status and progress of the various sustainability goals.

3.0 The Board of Trustees delegates authority to the Chancellor, or designee, to establish administrative procedures for sustainable practices of NOCCCD campuses in the areas of academics, student engagement, planning and administration, and operations.

Date of Adoption: May 26, 2021

7.2 AP 3580 Environmental Sustainability

North Orange County Community College District
ADMINISTRATIVE PROCEDURES
Chapter 3
General Institution

Reference:

California Community Colleges Board of Governors Sustainability Policy (2019); Association for the Advancement of Sustainability in Higher Education Sustainability Tracking, Assessment, and Rating System (STARS); United Nations Sustainable Development Goals (UNSDGs)

1.0 **Statement of Purpose**

1.1 Environmental sustainability is critically important to the North Orange County Community College District (NOCCCD) and the California Community College System at large. The purpose of this procedure is to provide guidelines for implementing principles of environmental sustainability in the institutional design, services, and operations of NOCCCD campuses.

1.2 All categories, criteria, and terms used are defined by the Association for the Advancement for Sustainability in Higher Education (AASHE) in their Sustainability Tracking, Advancement & Rating System (STARS) (https://stars.aashe.org) planning framework. NOCCCD campuses are to meet or exceed all applicable statewide policies, targets, and goals relevant to sustainability.

1.3 When fiscally and operationally feasible, the following sustainability procedures will be utilized for maintaining and implementing sustainability across the District.

2.0 **Operations**: The District will pursue environmental sustainability in its maintenance and facilities operations.

2.1 Air, Climate, and Energy: In alignment with California climate policy leadership, and according to Executive Order B-18-12, the District will recommend all District entities:

2.1.1 Complete, maintain, and update greenhouse gas emissions inventories from owned/controlled sources (Scope 1) and purchased electricity (Scope 2) at least every three years; and

2.1.2 Benchmark its energy consumption, minimize operational energy use, generate on-site renewable energy, and target net zero greenhouse gas emissions using state definitions.

2.2 Buildings: The District will construct, renovate, maintain, and operate buildings in accordance with a published green building rating system to monitor progress and strive for International Living Future Institute (ILFI) zero energy certification in order to mitigate the building's impact on the outdoor environment and provide a safe and healthy indoor environment.

2.3 Food and Dining: The District will develop and support food systems that are safe and environmentally and socially responsible. The District will prioritize purchases of food and beverage products that are sustainably and ethically produced, and/or plant-based as well as minimize food waste and single-use plastics. 1 North Orange County Community College District ADMINISTRATIVE PROCEDURES Chapter 3 General Institution AP 3580 Environmental Sustainability

2.4 Landscape and Biodiversity: The District will maximize landscape design and greenspace accessibility to support the campus community and local biodiversity. NOCCCD campuses will:

2.4.1 Support and manage grounds using organic products or in accordance with an Integrated Pest Management (IPM) program;

2.4.2 Support local biodiversity by conducting and maintaining an assessment to identify endangered and vulnerable species and/or areas of biodiversity importance on land owned or managed by the institution; and

2.4.3 Integrate climate adaptive native species and/or species of ethnobotanical significance into landscape design.

2.5 Purchasing: When possible, the District will purchase 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.

2.6 Transportation: The District will reduce the environmental impact of student and employee commuting by regularly gathering data about commuting behavior; implementing strategies to encourage sustainable modes of transportation including opportunities for ridesharing and alternative fueling stations; increasing the share of vehicles that are hybrid, electric, and/or alternatively fueled in the institution's motorized fleet.

2.7 Waste: The District will minimize the amount of solid waste that enters landfills. NOCCCD campuses will:

2.7.1 Collect and maintain data on weight of materials recycled, composted, donated/resold, and disposed in a landfill or incinerator in order to track, report, benchmark and move towards zero waste;

2.7.2 Implement a process to maximize diversion of non-hazardous construction and demolition waste from the landfill and/or incinerator;

2.7.3 Develop and maintain a process to safely dispose of all hazardous, special universal, and non-regulated chemical waste, and minimize the presence of these materials on campus. Recycle, reuse, and/or refurbish electronic waste generated by the institution and/or its students.

2.8 Water: The District will maintain data on potable and non-potable water use, use green infrastructure and low impact development (LID) practices to help mitigate stormwater run-off impacts, and maximize efforts to use rainwater as a resource.

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.

4.0 **Community Partnerships and Engagement**: The District will promote sustainability for student and public engagement, community partnerships, and service. The District will:

4.1 Coordinate ongoing sustainability-oriented outreach, campaigns, and initiatives;

4.2 Support co-curricular programming and activities including vocational and continued education courses that address sustainability;

4.3 Conduct regular assessment of sustainability campus culture focusing on sustainability values, behaviors, beliefs, and community service;

4.4 Develop formal community partnerships with local colleges, high schools, city and local governing bodies, and organizations to advance sustainability at a community level;

4.5 Advocate for public policies that support campus sustainability or advance principles of sustainability at wider scales.

5.0 **Planning and Administration**: The District is committed to institutionalizing and dedicating resources to foster sustainability. NOCCCD campuses will:

5.1 Create a formal committee, office, and/or officer to advise on and implement policies and programs related to sustainability;

5.2 Publish a Sustainability Plan that includes regular assessment and reporting on measurable sustainability objectives that is integrated in the institution's Strategic Master Plan;

5.3 Participate in and complete an assurance process that provides independent affirmation that reporting information is accurate and consistent with third party standards;

5.4 Promote diversity, equity, affordability, and well-being of its employees and students as components of sustainability and continue to assess, monitor, and improve these efforts by aligning with existing policies and governing bodies dedicated to these areas.

6.0 **Definitions**: For purposes of this procedure, the following definitions apply:

6.1 AASHE: The Association for the Advancement for Sustainability in Higher Education (AASHE) is the leading association for the advancement of sustainability in higher education. AASHE serves a full range of higher education faculty, administrators, staff and students who are change agents and drivers of sustainability innovation. Established in 2005, AASHE is comprised of over 900 members across 48 U.S. states, 1 U.S. Territory, 9 Canadian provinces and 20 countries.

6.2 STARS: The Sustainability Tracking, Assessment & Rating System™ (STARS) is a voluntary, self-reporting framework for helping colleges and universities track and measure their sustainability progress. It is designed to: 1) provide a framework for understanding sustainability in all sectors of higher education; 2) enable meaningful comparisons over time and across institutions using a common set of measurements developed with broad participation from the campus sustainability community; 3) Create incentives for continual improvement toward sustainability. 4) Facilitate information sharing about higher education sustainability practices and performance. 5) Build a stronger, more diverse campus sustainability community (STARS® 2.2 Technical Manual p.1). 100% of CSUs and UCs and increasing shares of CCCs use STARS as a tracking tool to assess and benchmark progress in sustainability.

6.3 Sustainability: AASHE defines sustainability in a pluralistic and inclusive way, encompassing human and ecological health, social justice, secure livelihoods, and a better world for all generations. STARS attempts to translate this broad and inclusive view of sustainability to measurable objectives at the campus level. Thus, it includes performance indicators related to, for example, ecological integrity, social and economic justice, and democratic governance. Today most uses of and references to sustainability emphasize the concept's simultaneous environmental, social, and economic dimensions (AASHE).

6.4 Integrated Pest Management: Integrated pest management (IPM) uses a combination of biological, cultural, physical/mechanical and chemical management tools to solve pest problems while minimizing risks to people and the environment. Although every IPM program is different, successful programs use the same four-tiered approach: 1) set action thresholds, 2) monitor and identify pests, 3) prevent or remove conditions that attract

pests, and 4) control. For more information, see the U.S. Environmental Protection Agency's IPM Principles.

6.5 ILFI Zero Energy Certification: This certifies that one hundred percent of a building's energy needs on a net annual basis are supplied by renewable energy through a third-party audit of actual performance data. Certification is based on actual, not modeled, performance. There are a number of ZE Certification exceptions, related to use of offsetting offsite renewables, on-site combustion, and other circumstances (International Living Future Zero Energy Certification).

6.6 Scope 1 GHG Emissions: 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 (STARS® 2.2 Technical Manual OP-01 p.5).

6.7 Scope 2 GHG Emissions: 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 (STARS® 2.2 Technical Manual OP-01 p.5).

7.0 **Annual Report**: The Chancellor or designee shall report annually to the Board of Trustees on the status and progress of the various sustainability goals. See Board Policy 3580, Sustainability Plan; Board Policy 3250, Institutional Planning; Board Policy 3505, Emergency Response Plan; Administrative Procedure 3570, Smoking on Campus; Board Policy 5200, Student Health Services; Board Policy 5300, Student Equity; Board Policy 7100, Commitment to Equal Employment Opportunity and Diversity

Date of Adoption: February 8, 2022

7.3 Environmentally Disadvantaged: Understanding Fullerton College Students' Geographies of Access to Fresh Foods, Green Spaces, and Clean Environments (2022)

CONCLUSIONS USED AS REFERENCE FOR THIS PLAN. FOR THE FULL REPORT INCLUDING GRAPHS AND MAPS, CLICK THE HYPERLINK ABOVE.

Thousands of students at Fullerton College are environmentally disadvantaged: 5,440 live in a food desert, 12,436 are park poor, and 9,849 are overburdened by environmental pollution. By geography, these students lack access to essential resources such as nutritional foods, green spaces, and clean environments.

Black and Latinx students are disproportionately impacted by environmental disadvantages along with economically disadvantaged and first-generation students. It is very likely that many students are subjected to intersections of disadvantage: for example, students who are economically disadvantaged, first-gen, and BIPOC who may live in state defined disadvantaged neighborhoods that are also food deserts, park poor, and burdened by pollution (or some variation of these intersecting attributes). These intersections were minimally explored in this project but likely impose compounded burden on many students.

First-generation students experience intersectional disadvantages. While first-generation students account for 35% of the student population, 92% of them are economically disadvantaged. Our economically disadvantaged first-gen students are predominantly Latinx (80%). They are consistently overrepresented in geographies of disadvantage, living in low-income census tracts with low access to fresh foods, green spaces, and burdened by pollution – all while pioneering a college education for the first time in their family. More than a third of them are not receiving financial aid.

The California Community College's Perkins definition of "economically disadvantaged" shows to be inclusive of geographical disadvantages, as economically disadvantaged students identified by this definition are consistently overrepresented in the critical geographies described here. One third of these students do not receive financial aid.

Remote learning limits students' access to the physical environment of Fullerton College and limits the ability of the college to mitigate environmental inequities explored in this research project. Spatial design and physical functions can help mitigate disadvantageous geographical contexts that many of our students migrate from. Certain college services can only be accessed physically, such as the food bank, food drive thru, and even access to hydration stations and green spaces on campus.

The college experience is a migration through space and time, where students make leaps of generations but also of geographies – many times of both. This fact makes colleges hopeful spaces with great potential for access, self-realization, and transformation. Connecting needy students to physical campus spaces that promote their wellbeing is essential to promote student success.

RECOMMENDATIONS: While advancing environmental justice must be a multi-scale commitment of public decision-making bodies, educational institutions are uniquely positioned to help bridge geographies of disadvantage as thousands of students migrate to campus spaces and can be connected to important resources. In order to maximize this potential, campus leaders can consider the environmental disadvantages explored in this report as an equity priority. Based on the findings of this study, we hereby offer several action items that can help increase student access to essential resources and help reduce environmental inequities:

1) Mobile-compatible interactive maps: Interactive maps are common in college campuses, but Fullerton College lacks a mobile-web interactive map that connects students to important resources on campus. Interactive maps help students connect information to location and more easily access campus services and physical spaces. Mapping layers can be selected to identify the food bank, campus gardens, hydration stations, mental health support, tech support, conference/study spaces, and etc. Informative and dynamic maps help students easily find what they need while on campus as well as important associated information such as operational hours, contact persons, for example. Interactive maps can also be used as educational tools, helping students locate culturally/ecologically important trees or art on campus, along with other campus features.

2) Public transportation and bike routes to campus: The college currently does not have an interactive map advertising how to get to campus. Hundreds of students living in low-income/disadvantaged neighborhoods could benefit from explicit and mobile compatible maps with bus and bike routes to campus and associated travel times. Focused mapping targeting the routes from low-income neighborhoods to campus with emphasis on a "free ride" could help make students more familiar with the OCTA bus pass program and their options for campus access. Itineraries like "ride at this time" and "visit the Food Bank at this time" could also help with the logistics of campus hours.

3) Geographically targeted "care mail": Campus administration could target mailing packages to students that are both economically disadvantaged and without financial aid. The findings of the Survey Inquiry Group and The Real College Survey indicate that the most common reason why students do not apply for financial aid is not necessarily a lack of knowledge that it exists but the idea that they do not qualify. Perhaps letting economically disadvantaged students know that they might qualify and can get support applying would help. Furthermore, "care mail packages" could include curated information about campus support and existing state/federal programs.

4) Improvement and increase of green spaces on campus: The Fullerton College Masterplan (2020) recognizes the lack of comfortable shaded outdoor spaces as one of the existing challenges on campus and suggests that a tree corridor would help improve the thermal comfort of students as they navigate the campus. Especially as urban temperatures rise, disadvantaged students may find the campus a refuge from extreme heat. Furthermore, greater shade in west facing locations would help with energy savings. Aside from thermal reasons, campus gardens promote student health and wellbeing. When combined with placards, gardens can provide educational opportunities for students to learn about native vegetation and their ethnobotanical value. It could be one of many ways our native students see ethnobotanies represented on campus and students at large increase their access and time in green spaces.

5) Increased partnerships: Fullerton College could promote innovative partnerships like the one reported by Foods and Nutrition in their latest Program Review (2021). Faculty from Foods and Horticulture are exploring ways to create farm-to-table curriculum, where students can both grow their foods in Horticulture and cook them in their Nutrition courses. Generations of Associated Students have expressed interest and support for a community garden and community kitchens. Materializing these aspirations would require planning and staffing, but there is tremendous potential in these efforts in improving student access to healthy foods. Some of these projects could be funded with the support of the annual Environmental Justice Grant from the California Environmental Protection Agency.

6) Enrollment & Recruitment: GIS is a powerful tool for geographically targeted recruitment. It can be used to identify nearby high schools and their population of seniors for recruitment. It can also be used for strategic advertisement based on county level demographic data.

Most of these recommendations are not resource intensive and can be addressed with one-time funds for research, planning, and implementation. We believe any or a combination of these strategies could help many students overcome the critically disadvantaged environmental contexts of their neighborhoods by increasing student access to campus resources.

7.4 Fullerton College Institutional Student Learning Outcomes

The Institutional Student Learning Outcomes (ISLOs) for Fullerton College are designed to reflect the college's General Education outcomes and are intended as knowledge; skills, abilities, and attitudes students will develop as a result of their overall experience at the college. Upon successful completion of transfer curriculum and/or when receiving an Associate's degree from Fullerton College, a student will have learned competency in all of the ISLO areas. Measurement of these ISLOs will be at the course level.

Students who complete certificates at the college will have benefit of some number of the ISLOs and measurement of those will be at the program level.

A single course is not expected to meet all the ISLOs, but each course does contribute to at least one of the ISLOs.

ISLO 3: Global Awareness: Students will be able to demonstrate an understanding of the world.

A. Scientific Observation and Methodology: Students will be able to apply scientific processes to solve problems and measure and observe natural phenomena; and will be able to design and perform experiments to analyze the major differences and connections between social, natural, and physical science.

B. Global Systems and Civic Responsibility: Students will be able to interface with people from a variety of backgrounds and analyze different cultural beliefs and behaviors; and will be able to recognize important economic and political issues in the local community, the state, the country, and the world. Students will also be able to evaluate the importance of the natural environment to human well being and the impact of human activity on the well being of the global environment.

C. Artistry: Students will be able to assess the visual arts, dance, music, and literature of many cultures, and will be able to analyze the methods used to create art and interpret its meaning. Student will also be able to engage in some artistic creative endeavors.

7.5 Fullerton College Goals, Objectives, and Institution Set Standards

The goals and objectives are updates to those that were developed by IIC and approved by the campus in fall 2018. The goals and objectives were updated to clarify language, include metrics that are measurable and that align with other established metrics in use. The number of goals were not changed, but additional objectives were added. IIC took into consideration the need to balance the inclusion of various initiatives and programs with making sure that the list is still short enough to be digestible and actionable.

College-wide Goal #3; Strengthen Connections with Our Community

Fullerton College will develop and strengthen collaborative projects and partnerships with educational institutions, civic organizations, and businesses in North Orange County and beyond.

Objective;

Identify and implement environmental justice projects to serve environmentally disadvantaged students and employees.

College-wide Goal #4; Commit to Accountability and Continuous Quality Improvement

Fullerton College will continually improve operational efficiency and effectiveness to ensure delivery of high quality instructional and support programs.

Objective;

Develop, implement, and assess a campus-specific sustainability plan.

7.6 Fullerton College Landscape and Exterior Improvements Standards

This Landscape & Exterior Improvement Standards guideline provides insight from the College for acceptable and non-acceptable plant materials for ground cover, shrubs and trees aligned with the desire to continue to implement and maintain plant materials which are consistent with existing similar materials, while eliminating use of those materials found incompatible, non-sustainable, and which require excessive maintenance and water consumption. The list of recommended materials is intended to reinforce consistency of character and compatibility of the campus design aesthetic.

Identified in this section are plant materials, including; Groundcover, Shrubs, and Trees, which the District and College have chosen to list as recommended for use on future projects for the Fullerton College campus. All Architects, Designers, Landscape Architects and Builders are to refer to this list for use of these materials. Only written approval of the District Leadership can override this direction, and no other authority to alter this direction is granted to other Faculty, staff or persons affiliated with the college or private industry or organization.

1. Groundcover

Arctotis – African Daisey or Gousblom

Gazania – Garzania

Hellenium – Sneezeweed

Myoporum – Myoporum Parvifolium

Dwarf Plumhbago – Ceratostigma Plumbaginoides, Plumbago

2. Shrubs

Arabian Lilac – Vitex Trifolia “Purpurea”, also known as Fascination

Sweet Olive

Yucca (Small) – Yucca Filamentosa or Adam’s needle and thread, common yucca

Mallow – Malva Sylvestiris

Japanese Blood Grass – Imperata Cylindrica ‘Rubra’

Encella – Encelia Farinosa, also known as Brittlebush or Brittlebrush

Brunfelsia – Also known as raintree, in the family Solanaceae, the nightshades

Cigar Plant – Cuphea Ignata

Crown of Thorns – Euphorbia Milii, also called Christ plant, Christ thorn

Brugmansia – Angel’s Trumpets

Buddleia – Commonly called Butterfly Bush

‘Miss Molly’ – Also called Butterfly Bush

Natal Plum – Carissa Macrocarpa of the Apocynaceae family

Night Blooming Jasmine – Cestrum Nocturnum is a species of Cestrum in the plant family Solanaceae

Pride of Madera – Echium Candicans

Rose of Sharon

Ceonothus – Buckbrush, California Lilac, soap bush, or just ceanothus (Greek for "spiny plant")

Lantana –Shrub Verbenas or Lantanas

Torch Bougainvillea – Bogenvillea 'Torch Glow'

Agaves – Century plant.

Aeoniums – Tree houseleeks

Kalanchoes

Callistemon 'Little John'

Dasylirion – Dasylirion Wheeleri (Desert spoon, spoon flower or common sotol)

Cordylines

Flapjacks

Succulents

Mexican Hair Grass

Blue Fescue

Muhley Grass

Lavenders

Aloes

Raphiolepis

Nandinas

Jade Red Edge

Salvia

Grevilleas – Family of "Proteaceae"

3. Trees

Pink Tabbebuia – Tabebuia Heterophylla

Acacias – Acocia, Waffle

Agonis – Flexulosa

Crape Myrtle – Lagerstroemia Indica

Redbud ‘Forest Pansy’ – Cercis Condlensis

Sweetshade – Hymenos Porim Flavum

Mexican Blue Palm – Brahea Arata

Palo Verde ‘Desert Museum’ – Parkinsonia

Giant Yellow Oleander – Cascabela Thevetia

Silk Tree – Albizia Julibrissin

California Black Oak – Quercus Kelloggii

Catalina Cherry – PrunusIlicifolia subsp. lgonii

Firewheel Tree – Stenocorpus Sinciatus

Arbutus – Arbutus Mengossii

Melaleuca – Melaluuca Disembiguation

Leptospermum – Leptospernum Scoparium

Red Flowering Gum – Corgybia Ficifolia (Eucalyptus Ficifolia)

7.7 California Community Colleges Chancellors Office Climate Action and Sustainability Goals (2021)

Greenhouse Gas Emissions Reduction

1. 2025 Benchmark
    a. Conduct emissions inventory baseline and create a climate action plan.
2. 2030 Build and Institutionalize
    a. Reduce greenhouse gas emissions to 75% below baseline.
3. 2035 Improve and Reassess
    a. Reduce greenhouse gas emission to 100% below baseline.

Green Buildings

1. 2025 Benchmark
    a. Benchmark energy usage intensity for each building.
    b. Develop Zero Net Energy (ZNE) and campus electrification strategy.
    c. Conduct Leadership in Energy and Environmental Design (LEED) and/or WELL assessment of existing buildings.
2. 2030 Build and Institutionalize
    a. All new buildings and major renovations constructed as ZNE ready.
    b. All new buildings certified LEED or WELL Gold.
    c. Use of natural gas in buildings reduced by 30%.
3. 2035 Improve and Reassess
    a. All new buildings and major renovations constructed as ZNE.
    b. All new buildings certified Zero Carbon.
    c. All existing buildings LEED O&M Gold or WELL Gold equivalent.
    d. Use of natural gas in buildings reduced by 75%.

Energy

1. 2025 Benchmark
    a. Establish a campus Energy Use Intensity (EUI) score.
    b. Conduct Effective Useful Life (EUL) analysis of all gas using appliances and systems; plan for electrification of systems with EUL of <10 years.
2. 2030 Build and Institutionalize
    a. Decrease EUI by 25% compared to the campus benchmark.
    b. Produce or procure 75% of site electrical consumption on an annual basis using renewable energy.
3. 2035 Improve and Reassess
    a. Decrease EUI by 40% compared to the campus benchmark.
    b. Accomplish Net Zero Energy Campus.

Water

1. 2025 Benchmark
    a. Benchmark potable water usage and create a water balance.
    b. Identify potential non-potable water sources.
    c. Create a landscape zoning map and irrigation metering strategy.
    d. Adopt the California Community College Model Stormwater management program.
2. 2030 Build and Institutionalize
    a. Reduce potable water usage from baseline level by 25%.
    b. Landscape irrigation systems of 2500 square feet or greater shall be separately metered (unless using local or municipal reclaimed water system).
    c. Landscape planting materials shall be 90% native species to the climate and geographical area of the college.
    d. Follow MS4 requirements.
    e. Irrigated turf grass shall not exceed 50% of the landscaped areas on campus.
3. 2035 Improve and Reassess
    a. Reduce potable water usage from baseline level by 50%.
    b. Stormwater runoff and discharge shall be limited to predevelopment levels for temperature, rate, volume, and duration of flow through the use of green infrastructure and low impact development for the campus.
    c. Stormwater runoff and discharge shall be limited to predevelopment levels for temperature, rate, volume, and duration of flow through the use of green infrastructure and low impact development for new buildings and major modifications.

Waste

4. 2025 Benchmark
    a. Conduct waste categorization assessment.
    b. Benchmark and comply with Title 14, Division 2, Chapter 5 (Beverage Container Recycling and Litter Reduction Act).
    c. Benchmark and comply with Title 14, CCR Division 7.
    d. Conduct an AB 341 compliance assessment.
    e. Centralize reporting for waste and resource recovery.
    f. Conduct total material consumption benchmark.
5. 2030 Build and Institutionalize
    a.
6. 2035 Improve and Reassess

Purchasing and Procurement

1. 2025 Benchmark
2. 2030 Build and Institutionalize
3. 2035 Improve and Reassess

Transportation

1. 2025 Benchmark
2. 2030 Build and Institutionalize
3. 2035 Improve and Reassess

Food Systems

1. 2025 Benchmark
2. 2030 Build and Institutionalize
3. 2035 Improve and Reassess

7.8 California Community Colleges Board of Governors Climate Action and Sustainability Framework (2019)

CLIMATE ACTION AND SUSTAINABILITY GOALS

Campuses physical footprint and facilities present an important asset districts can leverage to meet the Climate Action and Sustainability Framework goals. To help coordinate climate and sustainability activities, each California community college district is encouraged to designate a sustainability officer responsible for carrying out and/or coordinating its campus sustainability program efforts.

Greenhouse Gas Emissions Reduction

1. The California community colleges can conduct an emissions inventory baseline and create a climate action plan by 2025.

2. In alignment with statewide goals adopted by the California Air Resources Board (CARB), California Community Colleges can strive to eliminate greenhouse gas (GHG) emissions by 2035. To achieve this, it is recommended to reduce campus/district GHG emissions by at least 75% by 2030 and 100% by 2035 to align with the state's goals. Emissions will include both state and auxiliary organization purchases of electricity and natural gas; fleet and marine vessel usage; and other emissions over which the college or self-support entity has direct control.

3. Districts and colleges can track and report of their greenhouse gas inventory in alignment with the American College and University President's Climate Commitment (secondnature.org/webinars/getting-started-on-your-acupcc-climate-action-plan-2/) guidelines. Possible metrics to measure include GHG emissions per FTES.

4. The California community colleges are encouraged to promote the use of alternative transportation and/or alternative fuels to reduce GHG emissions related to college-associated transportation, including commuter and business travel.

As districts leaders develop new plans, important emphasis should be placed on designing new construction, remodeling, renovation, and repair projects with consideration of optimum energy utilization, low life cycle operating costs, and compliance with all applicable energy codes (enhanced Title 24 energy codes) and regulations. In the areas of specialized construction that are not regulated through the current energy codes, such as historical buildings, museums, and auditoriums, the campuses should ensure these facilities are designed to consider energy efficiency and maximize resources to subsidize energy efficiency. Moving forward, energy efficient and sustainable design features in project plans encouraged. The Chancellor's Office will monitor building sustainability/energy performance and maintain information on design best practices to support the energy efficiency goals and guidelines of this policy. The sustainability performance

will be based on Leadership in Energy and Environmental Design (LEED) principles with consideration to the physical diversity across the campuses.

Green Buildings

1. California community colleges are encouraged to benchmark their energy usage intensity for each building. Districts and colleges may develop a zero net energy (ZNE) and campus electrification strategy. They also have the option to conduct Leadership in Energy and Environmental Design (LEED) or WELL assessment of existing buildings.

2. Districts and colleges are encouraged to strive for all new buildings and major renovations to be constructed as ZNE ready, all new buildings to be certified LEED or WELL Gold, and strive to reduce the use of natural gas in buildings by 30% by 2030.

3. Districts and colleges are encouraged to strive for all new buildings and major renovations to be constructed as ZNE and certified Zero Carbon, all existing buildings to be LEED Operations and Maintenance (O&M) Gold or WELL Gold equivalent, and for the use of natural gas in buildings to be reduced by at least 75% by 2035.

Energy

1. California's local community colleges should consider establish a campus Energy Use Intensity (EUI) score and conduct Effective Useful Life (EUL) analysis of all gas-using appliances and systems; plan for electrification of systems with EUL of less than 10 years.

2. Districts and colleges should strive to decrease EUI by 25% compared to the campus benchmark and annually produce or procure 75% of site electrical consumption using renewable energy by 2030.

3. Districts and colleges should strive to decrease EUI by 40% compared to the campus benchmark and accomplish Net Zero Energy Campus by 2035.

Water

1. Districts and colleges should consider local benchmarks for potable water usage. Districts can also identify potential non-potable water resources, create a landscape zoning map and irrigation metering strategy and adopt best practices such as the California Community College Model Stormwater Management Program. For more information on Municipal Separate Storm Sewer Systems, please visit the California State Water Boards website for requirements. (https://www.waterboards.ca.gov/water_issues/programs/stormwater/municipal.html)

2. Districts and colleges are encouraged to reduce potable water usage by 25%. To achieve this goal, districts and colleges can ensure that landscape irrigation systems of 2500 square feet or greater are separately metered (unless using local or municipal reclaimed water system); ensure that landscape planting materials are 90% native species to the climate and geographical area of the college; ensure that irrigated turf grass does

not exceed 50% of the landscaped areas on campus; and are recommended to follow Municipal Separate Storm Sewer Systems (MS4) requirements by 2030.

3. By 2035, California community colleges are encouraged to reduce potable water usage from baseline level by 50%; limit stormwater runoff and discharge to predevelopment levels for temperature, rate, volume and duration of flow through the use of green infrastructure and low impact development for the campus; and limit stormwater runoff and discharge to predevelopment levels for temperature, rate, volume and duration of flow through the use of green infrastructure and low impact development for new buildings and major modifications.

Waste

1. Districts and colleges are encouraged to conduct a waste categorization assessment; benchmark and comply with Title 14, Division 2, Chapter 5 (www.calrecycle.ca.gov/Laws/Regulations/Title14/#Div2Chap5) (Beverage Container Recycling and Litter Reduction Act); benchmark and comply with Title 14, CCR Division 7 (www.calrecycle.ca.gov/Laws/Regulations/Title14/#Div7); develop a total material consumption benchmark; conduct an AB 341 (leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB341) compliance assessment; and centralize reporting for waste and resource recovery by 2025.

2. Districts and colleges should strive to achieve zero waste to landfill, conduct a circularity analysis, and reduce total material consumption compared to the benchmark by 10% by 2030.

3. Districts and colleges are encouraged to strive to increase material circularity by 25%, and decrease consumption of materials by 25% by 2035.

Purchasing and Procurement

1. California's local community colleges are encouraged to benchmark sustainability characteristics of existing products and services, adopt a sustainable procurement policy and administrative procedure, and purchase environmentally preferable electronic products by 2025.

2. Districts and colleges should strive to increase procurement of sustainable products and services by 25% compared to benchmark levels by 2030.

3. Districts and colleges should strive to increase procurement of sustainable products and services by 50% compared to benchmark levels by 2035.

In order for the California community colleges to reach these goals, campuses can promote use of suppliers and/or vendors who reduce waste, re-purpose recycled material, or support other environmentally friendly practices in the provision of goods or services to the colleges under contract. This may include additional evaluation points in solicitation evaluations for suppliers integrating sustainable practices. In order to move to zero waste, campus practices can: (1) encourage use of products that minimize the volume of trash sent to landfills or incinerators; (2)

participate in the CalRecycle Buy-Recycled program or equivalent; and (3) increase recycled content purchases in all Buy- Recycled program product categories. Districts and colleges should strive to continue to report on all recycled content product categories, consistent with PCC § 12153-12217 (leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=12153.&nodeTreePath=3.2.12.1&lawCode=PCC) and shall implement improved tracking and reporting procedures for their recycled content purchases.

Transportation

1. The California community colleges can conduct accounting and conditions assessment of fleet vehicles; assess remainder rolling stock for potential electrification; develop Electric Vehicle (EV) charging infrastructure to encourage faculty, staff and students to use EVs; promote accessible shared transport methods; and make pedestrian and bicycle access improvements by 2025.

2. Districts and colleges should strive to have 50% of new fleet vehicles that are zero emission vehicles, 50% of rolling stock that are zero emissions, and can consider implementing green parking permits by 2030.

3. Districts and colleges should strive to have 100% of new fleet vehicles that are zero emission vehicles, and 100% of rolling stock that are zero emissions by 2035.

Food Systems

1. Districts and colleges should strive to have campus food service organizations track their sustainable food purchases. Such tracking and reporting can be grounded in the Real Food Challenge (www.realfoodchallenge.org/resources/real-food-resources/) guidelines, or equivalent, with consideration to campus-requested improvements.

2. Campuses are encouraged to strive to increase their sustainable food purchases to 20% of total food budget by 2030, and to have 80% of food served on campus meeting the goals of the Real Food Challenge or equivalent by 2035.

7.9 Association for the Advancement of Sustainability in Higher Education Sustainability Tracking, Assessment, and Rating System (STARS)

The Sustainability Tracking, Assessment & Rating System™ (STARS) is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance.

STARS® is intended to engage and recognize the full spectrum of higher education institutions, from community colleges to research universities. It encompasses long-term sustainability goals for already high-achieving institutions, as well as entry points of recognition for institutions that are taking first steps toward sustainability. STARS is designed to:

- Provide a framework for understanding sustainability in all sectors of higher education.
- Enable meaningful comparisons over time and across institutions using a common set of measurements developed with broad participation from the international campus sustainability community.
- Create incentives for continual improvement toward sustainability.
- Facilitate information sharing about higher education sustainability practices and performance.
- Build a stronger, more diverse campus sustainability community.

Through participating in STARS, your institution can earn points toward a STARS Bronze, Silver, Gold, or Platinum Rating, or earn the STARS Reporter designation. Each seal represents significant sustainability leadership.

To participate in STARS, you will need to identify which credits you will be pursuing and collect the required information from campus stakeholders. Credits are organized into the following categories and detailed in the STARS Technical Manual.

7.10 Fullerton College Enrollment and Re-Engagement Plan

PBSC created these objectives with the intent of aligning its activities with other planning activities at the College, including the 2022-2025 Student Equity Plan, Guided Pathways goals, and work completed by the Strategic Enrollment Management Workgroup. Additional inspiration for the goals/objectives came from the Institutional Integrity Committee's draft of the collegewide goals and objectives.

Goal 1: Increase first-time and returning student headcounts and enrollments at Fullerton College

> **Objective 2**: Increase enrollment for student populations that disproportionately left the College after the start of the COVID-19 pandemic, particularly men of color, low-income

Goal 2: Increase course retention and term-to-term persistence rates for continuing students at Fullerton College

> **Objective 2**: Increase usage of basic needs support for housing, food insecurity, and mental health.
>
> **Objective 3**: Improve the sense of belonging and mattering for students of color.

Activities to Support Student Success and Retention

The last items with direct funding include all activities specifically addressing the success, retention, as well as the term-to-term persistence of students. PBSC clarified previous line-items, and collapsed other items based on campus feedback. Notable additions include funding to provide targeted mail packages based on recommendations from an Environmental Justice study developed by the Geography Department8 and supported by multiple campus planning bodies. In addition, in response to feedback about the need to address financial difficulties students may face, Administrative Services will pilot a program that provides a per-unit cost for textbooks. The program will reduce overall textbook costs for students by providing one low rate for all their materials.

Activities	Y1	Y2	Y3	Y4	Y5	Responsible Parties	Source(s)	Alignment with Plan Goals
Sustainability/ Environment Justice Support	$10,000	$25,000	$25,000	$25,000	$25,000	Sustainability Committee	Sustainability Study/PAC Recommendation	1.2,2.2,2.3