



SAN BERNARDINO COMMUNITY COLLEGE DISTRICT SUSTAINABILITY PLAN



2023

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CHANCELLOR'S MESSAGE



Dear SBCCD Community,

As we approach our centennial milestone of serving this wonderful community, we're thrilled to announce our bold steps towards creating a greener future. The truth is, the quality of our air, water, and the cleanliness of our community is in our hands.

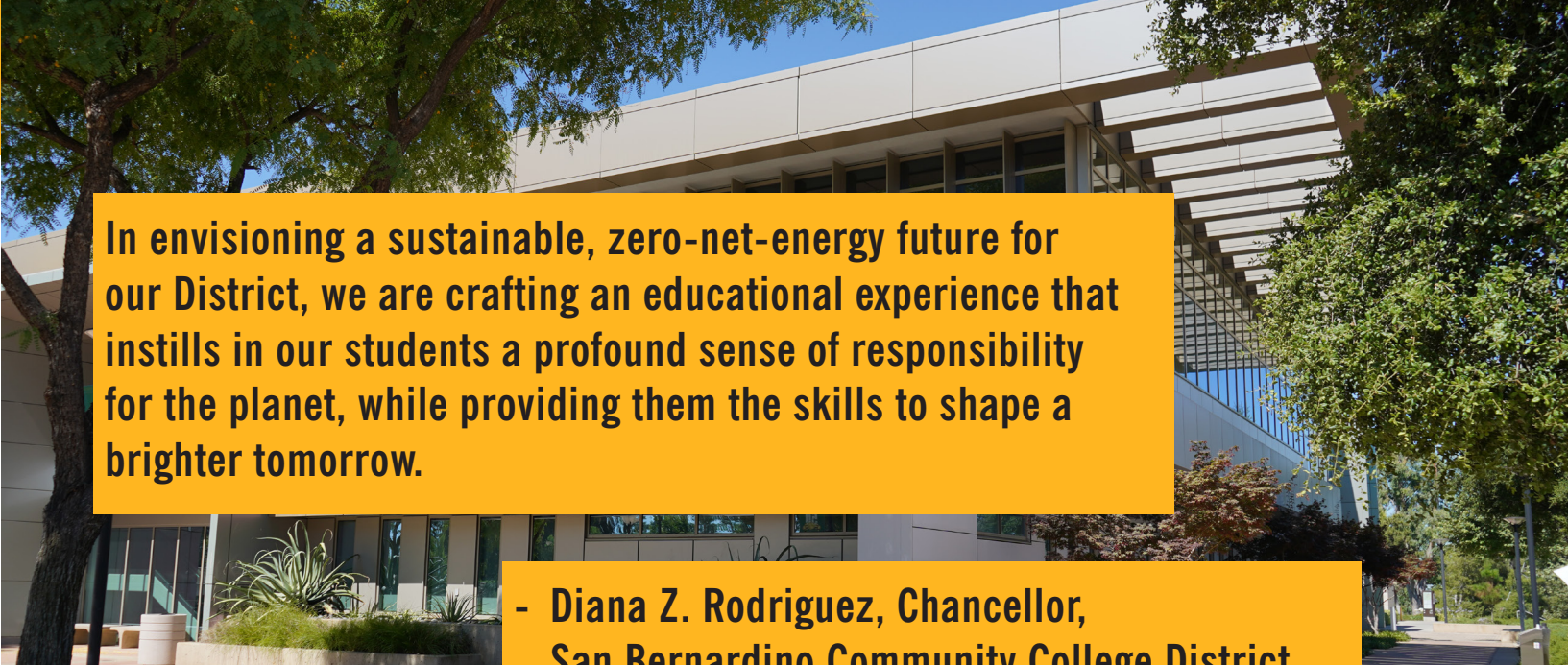
Our daily actions are the key to our well-being, and that's why we're excited to unveil the San Bernardino Community College District sustainability plan. This plan is our roadmap to the healthier future we all aspire to. It will guide us as we modernize our facilities, build new classrooms, and maintain

our campus landscapes. Our goal is clear: we're committed to reducing our carbon footprint, minimizing landfill waste, and lowering our energy consumption.

I want to express my heartfelt gratitude to our remarkable faculty, staff, students, and community partners who have played a pivotal role in shaping this dynamic plan. With your innovative spirit and unwavering support, I am confident that we will turn our vision of a sustainable future into reality.

Sincerely,

Diana Z. Rodriguez
Chancellor
San Bernardino Community College District




**- Diana Z. Rodriguez, Chancellor,
San Bernardino Community College District**




EXECUTIVE SUMMARY

San Bernardino Community College District (SBCCD) recognizes the need to take a leadership role on sustainability both within its local community as well as within the network of community colleges. SBCCD has undertaken a thorough strategic sustainability planning process to establish a set of sustainability goals to guide future operations at SBCCD. In alignment with State goals and the State Chancellor’s Office, the 24 goals in carbon mitigation, energy, water, transportation, materials, as well as, ongoing engagement and transparency, and education will provide a structure and direction for sustainable actions at SBCCD.




CARBON MITIGATION

- ▶ Achieve carbon neutrality for scope 1 and 2 emissions by 2035. Manage scope 3 emissions through the implementation of a Sustainability Task Force



ENERGY


- ▶ Continue to expand existing building efficiency efforts including retro-commissioning and benchmarking
- ▶ Maximize the amount of on-site renewable energy generation
- ▶ Move towards an all-electric approach for new construction and major renovations
- ▶ Conduct a zero-net-energy (ZNE) campus feasibility study and implement initiatives to move towards a ZNE district, starting with Valley College
- ▶ Consider establishing a Community Resilience Hub on each campus
- ▶ Collaborate with local utilities and other organizations to maximize cost-effectiveness of energy initiatives
- ▶ Consider conducting outdoor classes to minimize energy consumption and promote sustainability
- ▶ Implement “smart” building systems to reduce energy consumption



WATER

- ▶ Improve indoor water efficiency for existing buildings and new construction
- ▶ Utilize native and adaptive vegetation to minimize irrigation water use
- ▶ Expand the use of alternative water supplies to reduce potable water use
- ▶ Reduce potable water use by 25% by 2030
- ▶ Establish partnership with the local water district to promote implementation of best practices and education about the local water cycle and ecosystem

The initiatives that are included in this report to support the realization of these goals were arrived at through stakeholder engagement from the student body, faculty, staff, and facility personnel. Discussion of the specific initiatives and action items to be implemented in pursuit of these sustainability goals can be found in the detailed discussion of each sustainability pillar later in this document. These initiatives are also consolidated in Appendix A: Sustainability Goals Matrix, intended as a quick reference document.




TRANSPORTATION

- ▶ Establish a transportation demand management plan to encourage alternative modes of transport and reduce single-occupancy vehicles (SOVs) demand
- ▶ All new purchases of fleet vehicles shall be zero emissions by 2025, to achieve a full conversion of the fleet by 2035
- ▶ Install electric vehicle (EV) charging infrastructure to promote the use of EVs within the local community




MATERIALS

- ▶ Reduce waste going to landfill by 50% by 2035
- ▶ Increase procurement of sustainable products and services by 25% by 2030, on a cost basis



ONGOING ENGAGEMENT AND TRANSPARENCY

- ▶ Track and report ongoing sustainability performance against goals every five years starting in 2025
- ▶ Utilize social media, newsletters, KVCR, and a new student-led sustainability organization to regularly engage the campus community about initiatives and sustainable behaviors
- ▶ For all new construction and major renovations over 30k sqft, achieve CALGreen Tier 1 and LEED Gold at a minimum, and CALGreen Tier 2 and LEED Platinum where possible



EDUCATION

- ▶ Enhance curricular educational opportunities for sustainability
- ▶ Establish both campuses as a living laboratory by using sustainability initiatives as an opportunity for hands-on learning

PURPOSE OF THE PLAN

The vision for sustainability within the San Bernardino Community College District revolves around enhancing its educational system by incorporating a threefold commitment to sustainability: environmental, social, and economic. It aims to ensure that SBCCD becomes a leader in implementing sustainable practices that positively impact not only our campus but also our wider community. The long-term plan aims to advance all facets of the district's operations, promoting a balanced growth that respects our planet, benefits our community, and ensures economic viability.

ABOUT THE PLAN

Sustainability Planning Process

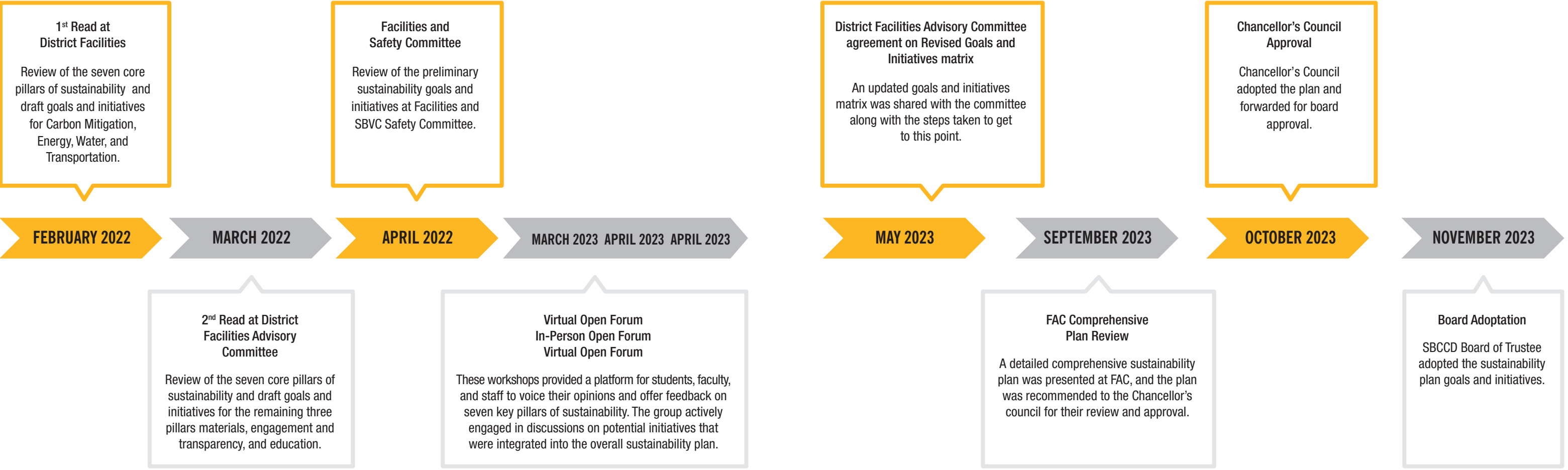
This Sustainability Plan serves as a strategic blueprint devised for the San Bernardino Community College District (SBCCD), including its two colleges—San Bernardino Valley College (SBVC) and Crafton Hills College (CHC). The plan is the result of a collaborative process involving diverse stakeholders represented by students, faculty, and staff, all committed to enhancing sustainability across the district.

The district engaged the services of ARUP U.S. to assist in the creation and development of the plan. ARUP played a pivotal role in facilitating an inclusive process, encouraging constructive dialogue and exchange of

ideas among all the stakeholders. The result is a comprehensive and forward-thinking plan that reflects the collective input and vision of the entire SBCCD community.

Embarking on this endeavor, the San Bernardino Community College District (SBCCD) set its sights on establishing a comprehensive and robust blueprint for sustainability efforts. This framework:

- Synchronizes with the Climate Action and Sustainability Framework laid out by the Board of Governors for the California Community Colleges, thus fostering alignment and unity in our environmental goals.
- Positions SBCCD for competitive advantage in procuring future funding, thereby ensuring we can sustain and expand our sustainability initiatives.
- Highlights the proactive role SBCCD has undertaken in sustainability stewardship, demonstrating our commitment to preserving and enhancing the environment.
- Incorporates a sustainability component into the Bond program, ensuring that our infrastructure improvements are grounded in green principles.



DESCRIPTION OF SBCCD

San Bernardino Community College District (SBCCD) is one of 72 community college districts within the California Community College system, the largest educational system in the world, which encompasses 112 community colleges. SBCCD serves 27,000 students at its Crafton Hills College and San Bernardino Valley College campuses. SBCCD has an 85-year history of providing its community and students with quality and affordable vocational certificates, associate degrees, and preparation for transfer to a four-year college or university through San Bernardino Valley College (SBVC) and Crafton Hills College (CHC).

Beyond academic excellence, SBCCD plays a pivotal role in the community’s development through its Economic Development and Corporate Training Division (EDCT) and KVCR TV-FM. These initiatives not only foster professional growth but also disseminate enriching cultural and educational information, benefiting the broader community as a whole.

SBCCD continues to foster growth, innovation, and success for both its students and the wider community, making a profound and lasting impact on the region it serves.

HISTORY OF SUSTAINABILITY AT SBCCD

The District has a long-standing history of exhibiting sustainable innovation, and these efforts have only accelerated in recent years. In 2012, the Board of Trustees approved our first sustainability plan which included seven goals.

SBCCD Sustainability Plan 2012 Goals

- 1 Create a campus-wide culture of sustainability
- 2 Incorporate sustainability into the development of new and renovated facilities
- 3 Invest in renewable energy and energy efficiency programs
- 4 Develop a more sustainable transportation system
- 5 Develop a more sustainable system for the purchase of supplies and materials
- 6 Enhance curricular educational opportunities for sustainability
- 7 Establish a commitment to climate action



To meet these goals SBCCD has:

- 1 Implemented the district-wide energy conservation strategies, such as upgrades to mechanical equipment and lighting retrofits.
- 2 In 2018, the District utilized Proposition 39 funds to retrofit its headquarters, turning it into California’s first Zero Net Energy building in the community college system.
- 3 SBCCD has demonstrated its commitment to green architecture by designing and constructing 10 LEED-certified buildings throughout the district, with more underway.
- 4 Public access to an Energy Dashboard allows the community to track the District’s electricity, gas, and water consumption, promoting transparency and accountability.
- 5 SBCCD has minimized turf areas to conserve water and reduce maintenance demands, contributing to efficient resource management.
- 6 Through the effective management of heating and cooling systems, the District has been able to significantly reduce its overall energy consumption.
- 7 SBCCD incorporates operable walls in its designs to adjust room sizes and layouts based on occupancy requirements, thus enhancing functional efficiency and energy conservation.
- 8 An integrated pest control program combining preventive measures and non-toxic products is in place to ensure environmental safety.
- 9 Crafton Hills College (CHC) employs an intelligent irrigation system that waters plants only when necessary, optimizing water usage.
- 10 CHC uses non-potable water for non-drinking purposes, effectively lowering the demand for treated water.
- 11 The District’s exterior and interior lighting systems employ controls to adjust brightness based on occupancy and natural light, resulting in energy savings.
- 12 The installation of sub-metering across the colleges enables the monitoring of energy usage in specific areas, allowing for the identification and rectification of energy inefficiencies.
- 13 A 1.3 MW concentrating solar power system installed at Crafton Hills College offsets 4 million pounds of carbon dioxide equivalent emissions annually while also saving on utility costs.
- 14 SBCCD’s dedication to sustainability has earned it 19 accolades from organizations like the California Higher Education Sustainability Conference (CHESC) and the US Green Building Council – Los Angeles (USGBC-LA).



A VISION OF SUSTAINABILITY AT SBCCD

SBCCD’s vision of sustainability is centered around meeting the needs of the present while safeguarding future generations, encompassing the environmental, social, and economic spheres. This involves:

- The institution recognizes that focusing solely on environmental efforts is insufficient for achieving true sustainability and therefore aims to enhance its education system across all three sustainability dimensions.
- SBCCD is committed to affordability in education for its diverse communities, ensuring that sustainability initiatives do not impose excessive costs that compromise the accessibility of education.
- Sustainability investments are carefully evaluated to ensure a reasonable return on investment, maintaining economic sustainability for future operations.
- Equity is a fundamental aspect of SBCCD’s sustainability vision, and all commitments are designed to address equity issues and create opportunities for everyone within the SBCCD community.
- Stakeholder engagement and inclusivity are important to ensure that decisions made align with SBCCD’s vision for sustainability and benefit all involved parties.

Return on Investment (ROI) Consideration

To gauge the economic aspect of SBCCD’s sustainable development vision, a complete life-cycle cost analysis (LCCA) shall be performed for each sustainability measure. The intent of the LCCA is to determine if the return on investment (ROI) is reasonably lower than the expected useful life of the sustainability measure from cradle to grave. This cost-effectiveness test will allow SBCCD to prioritize programs by assessing both their co-benefits and cost-benefits. Even if the program is not cost-effective, SBCCD, on a case-by-case basis, will assess whether the co-benefits associated with a sustainability measure are worth the added costs. This ROI consideration process provides SBCCD with the information necessary to make strategic investment decisions that maximizes benefits to its stakeholders with efficient use of taxpayer dollars.

POLICY DRIVERS

The State of California is a nationwide leader in sustainability. The political environment in California encourages, and at times mandates, sustainable action through progressive and established regulations. Below are a few key pieces of legislation that informed and helped shape SBCCD’s sustainability goals.

STATE POLICIES

California Global Warming Solutions Act of 2006: Emissions Limit, Senate Bill 32¹

The bill designates the State Air Resources Board as the authority to monitor and regulate statewide greenhouse gas emissions such that State greenhouse gas emissions are capped to 1990 levels by 2020, and 40% below 1990 levels by 2030, with a long-term policy goal (not mandated) of reaching 80% below 1990 levels by 2050.

Senate Bill 100: Joint Agency Report²

Senate Bill 100 puts California on the path to a 100% clean grid by 2045. The bill mandates utilities to source 60% of its electricity from renewable sources by 2030, and 100% from carbon-free sources by 2045.

California Long-Term Energy Efficiency Strategic Plan³

First released in 2008 and updated in 2011, the California Public Utilities Commission (CPUC) adopted the Long-Term Energy Efficiency Strategic Plan. The California Energy Efficiency Strategic Plan sets forth ambitious policy goals for zero net energy (ZNE). It aims for all new commercial construction to be ZNE by 2030, and 50% of commercial buildings to be retrofitted to be ZNE by 2030.

Title 24, Part 11

Title 24, Part 11 is the California Green Building Code (i.e., CALGreen). Every three years, the building code sets progressively more stringent requirements on building energy and water efficiency for new buildings or major renovations. With the latest 2022 cycle that went into effect in January 2023, CALGreen continues to enforce requirements for on-site renewable energy generation and EV-charging capability as well.

Water Conservation Act of 2009, SB X7-7⁴

The Water Conservation Act of 2009 signs in to law the requirement for the State to achieve a 20% reduction in urban water consumption per capita by the end of 2020. The bill also required water suppliers to increase their water efficiency – mandating urban retail water suppliers to develop urban water use targets, and agricultural water suppliers to implement water efficiency measures. Signed in 2018, AB-1668 and SB-606 upheld the Water Conservation Act of 2009 and begun the process of establishing new, long-term goals. Several years of workshops run by the California Water Board have recommended similar conservation goals and their findings are expected to be codified in 2024.⁶

Recycled Water Policy⁶

The State Water Board adopted the policy goal to increase the use of recycled municipal wastewater in California from 714,000 acre-feet per year (afy) in 2015 to 1.5 million afy by 2020, and to 2.5 million afy by 2030. The policy focuses on increasing recycled water use at a utility-level, and the recycled water is intended to supply non-potable demands such as irrigation and process water.

Sustainable Communities and Climate Protection Act of 2008, Senate Bill 375^{7,8}

Senate Bill 375 focuses on limiting greenhouse gas emissions by reducing vehicle miles traveled and urban sprawl. The bill designates the California Air Resource Board (CARB) the authority to set regional targets for greenhouse gas emission reductions from passenger vehicle use. Under Senate Bill 150 – signed into effect in 2017 – CARB is required to report to legislature every four years to discuss regional emissions related to Senate Bill 375 implementation. For San Bernardino, which falls under the Southern California Association of Governments jurisdiction, CARB has outlined an 8% reduction in greenhouse gas emissions from passenger vehicles by 2020, and 19% reduction by 2035.

Low Carbon Fuel Standard⁹

The Low Carbon Fuel Standard, amended in 2019, is a market-based policy that requires refiners, blenders, producers and importers of transportation fuels to reduce the carbon intensity of the fuels they sell by 20% by 2030. Carbon intensity is a measure of the life-cycle greenhouse gas emissions associated with producing, distributing and consuming a fuel, calculated on a per megajoule of energy basis.

Innovative Clean Transit Regulation¹⁰

The Innovative Clean Transit Regulation requires all public transit agencies to achieve a full zero emission bus (ZEB) fleet transition by 2040. The regulation sets interim targets for a gradual transitioning to full ZEB conversion, requiring 25% of new bus purchases to be zero emissions by 2023, and 100% of new purchases to be zero emission by 2029.

California 75 Percent Initiative^{11, 12}

California has set a policy goal of achieving 75% recycling, composting and source reduction of solid waste by 2020. Two key laws were passed to help meet this goal. Released in 2011, Assembly Bill 341 requires all commercial businesses and public entities to establish a recycling program. Released in 2014, Assembly Bill 1826 mandates organic waste recycling for commercial facilities.

Buy Clean California Act¹³

The Buy Clean California Act applies to State agencies, University of California and California State University System. The Act requires these agencies and institutions to disclose the embodied emissions of select building materials used in new construction through submission of Environmental Product Declarations. Not only must they disclose the impacts of the materials, but the materials purchased cannot exceed lifecycle global warming potential limits set by the Department of General Services.

¹“Bill Text - SB-32 California Global Warming Solutions Act of 2006: emissions limit.” California Legislative Information, 2012, https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32.
²“Bill Text - SB-100 California Renewables Portfolio Standard Program: emissions of greenhouse gases.” California Legislative Information, 2012, https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB100.
³Engage360. CA Energy Efficiency Strategic Plan. Jan. 2011, www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=5303.
⁴“Bill Text - SB-7.” Water.CA.gov, 2009, <https://water.ca.gov/LegacyFiles/wateruseefficiency/sb7/docs/SB7-7-TheLaw.pdf>.

⁵California Water Boards’ Office of Research, Planning, and Performance. “Proposed Regulatory framework for Making Conservation a California Way of Life.” Board Workshop, March 23, 2023.
⁶State Water Resources Control Board. Water Quality Control Policy for Recycled Water. 2018, www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf.
⁷California Air Resource Board. Appendix A of Updated Final Staff Report Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. 2018, ww3.arb.ca.gov/cc/sb375/appendix_a_feb2018.pdf.
⁸California Air Resource Board. SB 375 Regional Greenhouse Gas Emissions Reduction Targets. 2018, ww3.arb.ca.gov/cc/sb375/finaltargets2018.pdf.
⁹California Air Resources Board. CARB Amends Low Carbon Fuel Standard for Wider Impact. Sept. 2018, ww2.arb.ca.gov/news/carb-amends-low-carbon-fuel-standard-wider-impact.
¹⁰California Air Resources Board. Innovative Clean Transit (ICT) Regulation Fact Sheet. May 2019, ww2.arb.ca.gov/resources/fact-sheets/innovative-clean-transit-ict-regulation-fact-sheet.
¹¹“Bill Text - AB-341 Solid Waste: Diversion.” California Legislative Information, 2012, leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB341.
¹²“Bill Text - AB-1826 Solid Waste: Organic Waste.” California Legislative Information, 2012, http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB1826&search_keywords.
¹³Department of General Services. Buy Clean California Act. www.dgs.ca.gov/PD/Resources/Page-Content/Procurement-Division-Resources-List-Folder/Buy-Clean-California-Act.



STATE CHANCELLOR OFFICE OF SUSTAINABILITY POLICIES

Updated in 2023, the California Community Colleges Chancellor's Office's Climate Action and Sustainability Goals adopted 8 subcategories defined by the Association for the Advancement of Sustainability in Higher Education's (AASHE) Sustainability Tracking, Assessment and Rating System (STARS) to align with the statewide sustainability goals outlined above. The STARS subcategories have been adopted in SBCCD's Sustainability Plan to align with the unique challenges within our campus community.

In addition to the categorical framework, the Chancellor's Office's defines performance goals that have guided the key performance indicators and goals to be pursued by SBCCD. These goals require a performance benchmark to be established in 2025 with progressive conservation goals to be achieved in 2030 and 2035.

These goals include:

- ▶ Reduce greenhouse gas emissions by 75% by 2030, relative to the 2025 baseline.
- ▶ All new buildings and major renovations will be ZNE ready and LEED or WELL gold certified by 2030, and certified Zero Carbon by 2035.
- ▶ Increase renewable energy consumption by 75% by 2030, relative to the 2025 baseline.
- ▶ Decrease energy usage intensity (EUI) by 25% by 2030, and 40% by 2035, relative to the 2025 baseline.
- ▶ Reduce potable water usage by 25% by 2030 and 50% by 2035, relative to the 2025 baseline.
- ▶ Reduce total material consumption by 10% by 2030 and 25% by 2035, relative to the 2025 baseline.
- ▶ Increase procurement of sustainable products and service by 25% by 2030 and 50% by 2035, relative to the 2025 baseline.
- ▶ Ensure 50% of new fleet vehicles and rolling stock are zero emissions vehicles by 2030, and 100% by 2035.
- ▶ Increase campus sustainable food practices by 20% by 2030, relative to 2025 baseline.



SBCCD SUSTAINABILITY PLAN 2023 GOALS

SBCCD’s sustainability vision is woven around a number of sustainability focus areas, under which high-level goals have been defined.



CARBON MITIGATION



MATERIALS



ENERGY



ONGOING ENGAGEMENT AND TRANSPARENCY



WATER



EDUCATION



TRANSPORTATION

Projects or initiatives that will help achieve the goals have started to be identified and are listed within this section. This Sustainability Plan is expected to be updated every five years and the initiatives and projects listed will continue to grow and change to reflect market trends, District needs, policy drivers, and the general landscape of sustainability. Within each goal, a key performance indicator (KPI) has also been included. It is expected that the KPI’s will be used to track progress towards goals in a consistent and transparent way.





1.0 CARBON MITIGATION

The first goal set by SBCCD is to align itself with State of California Climate Change goals by targeting carbon neutrality by 2035 for scope 1 and scope 2 emissions. This includes direct emissions within the District – natural gas combustion and emissions associated with District owned vehicles – and indirect emissions associated with imported electricity. Scope 3 emissions – indirect emissions associated with employee travel, waste, commuting, leased buildings and goods will be tracked and performance targets will be set by a new Sustainability Task Force made up with representatives of key SBCCD stakeholder groups. The main mission of the Sustainability Task Force is to promote operational sustainability at SBCCD.



“EMPOWERING OUR STUDENTS STARTS
BY EMPOWERING OUR PLANET.
SUSTAINABILITY IS NOT JUST AN OPTION; IT’S OUR FUTURE.”



1.1 GOAL 1

Achieve carbon neutrality for scope 1 and 2 emissions by 2035. Manage scope 3 emissions through the implementation of a Sustainability Task Force

Key Performance Indicator: Greenhouse Gas Emissions, CO2e/yr

Key Initiatives

- ▶ 1.1.1 Complete a greenhouse gas inventory of all Scope 1, 2 and 3 emissions. Update every five years. Publicly share a comparative carbon footprint analysis with peer institutions to facilitate collaborative learning and foster regional impact awareness.
- ▶ 1.1.2 Complete a Climate Action Plan (CAP) to meet or exceed goals and provide a roadmap for achieving them.
- ▶ 1.1.3 Evaluate projects in a holistic, life-cycle means to understand the carbon footprint, life-cycle costs, opportunity cost of funds, and Return on Investment.





2.0 ENERGY

The operational energy use of buildings is responsible for almost a third of the global emissions.¹⁴ Playing such a large role in the district's carbon footprint, SBCCD has already undertaken numerous efforts in energy efficiency and renewable energy generation and has now pledged to 8 goals in pursuit of a clean and robust energy system. To eliminate emissions, reduce risk of supply cuts and rising energy costs, and maximize social benefits such as lower regional air pollution, SBCCD has tackled sustainable energy through a three-step approach:

- 1 Energy Efficiency**
Reduce the energy demand of the district through load reduction and building systems upgrades
- 2 Renewables**
Increase clean energy production on site
- 3 Offsite**
Increase the amount of off-site renewable energy generation used by the district

2.1 GOAL 1

Continue to expand existing building efficiency efforts including retro-commissioning and benchmarking

- Key Performance Indicator:** District-wide energy use intensity, kBtu/sqft
- Key Initiatives**
- ▶ 2.1.1 Conduct equipment inventory and benchmark the Energy Usage Intensity (EUI) of each building.
 - ▶ 2.1.2 Install building-level electrical sub-meters.
 - ▶ 2.1.3 Add sub-meters to measure major electrical loads (i.e. HVAC, lighting, and plug loads) in new construction and major renovation projects.

The first goal aims to reduce energy demands by increasing the energy efficiency of buildings throughout the district. This can be monitored with each iteration of the sustainability plan by measuring the district-wide energy use intensity, which is the amount of energy consumed by the district on a per-square-foot basis. To cost-effectively strategize where to implement energy efficiency efforts, SBCCD plans to expand its already comprehensive energy metering network and to add a sub-meter at each building and at its significant end-use energy users, where possible. Data gathered from this initiative will allow SBCCD to benchmark energy efficiency and carbon mitigation efforts, and to inform future initiatives through retrospective assessment of what strategies have proven most useful.

2.2 GOAL 2

Maximize the amount of on-site renewable energy generation

- Key Performance Indicator:** Annual on-site renewable energy generation, kWh/yr
- Key Initiatives**
- ▶ 2.2.1 Develop and implement a solar energy masterplan.
 - ▶ 2.2.2 Perform feasibility analysis to add battery storage along with renewable power.

The District has already taken large strides to increasing its on-site renewable energy generation, with a 1.3 MW concentrating solar power farm in Crafton Hills College. Efforts to capitalize on the solar potential of Valley College are already underway. SBCCD plans to develop a solar energy masterplan at Valley College that maximizes the amount of solar PV available, given space constraints, while also assessing its structural and financial feasibility. As shown by the existing solar farm at Crafton Hills College, on-site solar generation not only reduces emissions from its fuel mix, but also offers an opportunity for reduced annual operational costs. Battery Energy Storage Systems (BESS) can serve as valuable supplements to on-site renewables and will be evaluated for their applicability at SBCCD.

¹⁴Architecture 2030. New Buildings: Embodied Carbon. 2018, architecture2030.org/new-buildings-embodied/.

2.3 GOAL 3

Move towards an all-electric approach for new construction and major renovations

Key Performance Indicator: Number of all-electric buildings in the District

Key Initiatives

- 2.3.1 Conduct a district-wide electrification study to assess the feasibility of integrating electrification into district building standards and to understand its implications on utility costs and infrastructure upgrades.

The California Public Utilities Commission requires electric utilities to integrate more renewables into their fuel mix for an increasingly cleaner grid. By 2045, the grid will be sourced from completely carbon-free sources. To capitalize on this trend, SBCCD is divesting in fossil-fuel-based assets and investing in an all-electric future. SBCCD will conduct a district-wide electrification study to assess the feasibility of integrating electrification into district building standards, and to understand its implications on utility costs and infrastructure upgrades.

2.4 GOAL 4

Conduct a zero-net-energy (ZNE) campus feasibility study and implement initiatives to move towards a ZNE district, starting with Valley College

Key Performance Indicator: Number of ZNE buildings in the District

Key Initiatives

- 2.4.1 Design the new Technical building to be ZNE Ready.
- 2.4.2 Conduct a ZNE campus feasibility study and implement initiatives.

Zero net energy means to produce an equal or greater amount of renewable energy than energy consumed over the year. Zero net energy buildings lend to lower operational costs and greater energy resilience. Strategies used in ZNE design – such as natural daylighting and ventilation – can improve student and faculty productivity, while also showcasing exemplar technologies.

SBCCD leads the region in ZNE design with the only ZNE building among community colleges in all of California. Retrofitted in 2018, the District Office is a clear example of SBCCD’s sustainable leadership and innovation.

2.5 GOAL 5

Consider establishing a Community Resilience Hub on each campus

Key Performance Indicator: Number of people served with protected supply of energy, water and other basic needs

Key Initiatives

- 2.5.1 Consider feasibility of piloting microgrids and energy storage for increased energy resilience.
- 2.5.2 Consider ways to integrate resilience focused design for new buildings.

As evident in the scale and frequency of wildfires in California in recent years, the dangers of climate-related hazards are becoming more real and impactful, especially for SBCCD. Crafton Hills College falls into a very high fire hazard severity zone, and a fault line runs directly through the center of Valley College. In response to increasing climate risks, regulations on utilities have changed such that they are given more authority to preemptively shut off power. This poses a threat to SBCCD and its greater community – disrupting education and increasing exposure of sensitive receptors to heat stress. SBCCD shall assess the feasibility and benefits of establishing a community resilience hub on each campus that pilots a combination of microgrids, renewables and energy storage to ensure continuous operations of critical loads. During preemptive grid shutdowns or natural catastrophes, SBCCD could use these resilience hubs to safeguard its students, faculty, staff and surrounding community.

2.6 GOAL 6

Collaborate with local utilities and other organization to maximize cost-effectiveness of energy initiatives

Key Performance Indicator: External funds used for sustainability initiatives, \$

Key Initiatives

- 2.6.1 Collaborate with Southern California Edison and other organizations to utilize incentives and grants for energy efficiency, zero net energy design and/or resilience hub piloting.

SBCCD will continue to collaborate with local utilities and other organizations to identify funding opportunities for energy initiatives. The goals set forth in this plan align with many incentive programs already available, such as Southern California Edison’s (SCE) Energy Savings by Design and Solar + Storage Resiliency Center Learning Pilot incentive programs. Additional outside grants, such as those offered by SoCalREN and the California Public Utilities Commission, will also be investigated to maximize the cost effectiveness of energy initiatives and protect taxpayer capital.

2.7 GOAL 7

Consider conducting outdoor classes to minimize energy consumption and promote sustainability

Key Performance Indicator: Number of courses offered outdoors

Key Initiatives

- 2.7.1 Investigate the feasibility of conducting outdoor classes to minimize energy consumption associated with indoor classroom settings and promote environmental sustainability.

To reduce building system energy consumption, certain courses may be offered outdoors. In addition to reducing usage of lights, HVAC, computers, etc. this may also serve to improve the health and well-being of SBCCD's students and faculty. This will align with standards from organizations such as LEED and Fitwell regarding environmental quality and healthy lifestyle practices.

2.8 GOAL 8

Implement “smart” building systems to reduce energy consumption

Key Performance Indicator: Building-level energy use intensity, kBtu/sqft

Key Initiatives

- 2.8.1 Implement and optimize “smart” building systems, including occupancy sensors, to efficiently manage HVAC and lighting systems, reducing energy consumption, and promoting sustainable practices.

Building Automation and Building Management Systems are valuable tools to supplement other building energy efficiency measures. “Smart” building systems are programmable and adaptive and will facilitate the other sustainability objectives including resource use reductions, metering, and benchmarking.

“SUSTAINABILITY IS THE MOST IMPORTANT LESSON WE CAN IMPART FOR,
IT ENSURES THERE ARE LEARNERS
FOR GENERATIONS TO COME.”





3.0 WATER

Water conservation is a particularly key issue for California due to its climatic conditions and increasing stress from climate change. Groundwater, which supplies approximately 40% of the water used by Californians, is on a steady decline. Water is being pumped out of groundwater basins at a rate faster than they can be replenished. Unsustainable management of groundwater basins and climate-vulnerable surface water reservoirs have led to historically uncertain water supplies. As was done in California's prior periods of drought, collective action from all the public is needed to mitigate drought risk and secure a long-term source of water. SBCCD will systematically minimize the amount of water used by (1) reducing indoor potable water demand through building fixture efficiency and water conservation education, (2) reduce outdoor water demand through irrigation and landscape best practices, and (3) investigate alternative supplies of water to offset potable water consumption.

3.1 GOAL 1

Improve indoor water efficiency for existing buildings and new construction

Key Performance Indicator: Retrofit existing building indoor water fixtures and fittings to meet CALGreen

Key Initiatives

- ▶ 3.1.1 Retrofit existing building indoor water fixtures and fittings to meet CALGreen
- ▶ 3.1.2 For new construction and major renovations, achieve CALGreen Tier 1 at a minimum, and Tier 2 when possible.

California's green building code, CALGreen, has some of the most stringent indoor water requirements in the country. CALGreen's minimum flowrates for water fixtures and fittings already meet the water efficiency prerequisite in LEED. However, CALGreen is only required for newly constructed or majorly renovated buildings. With increasing drought risk, SBCCD will fill in the gap by tackling its existing building stock as well. SBCCD will continue existing building retrofit efforts, upgrading indoor water fixtures and fittings district-wide to meet CALGreen standards.

Furthermore, as outlined in Ongoing Transparency and Engagement Goal 2, SBCCD plans to go beyond code for new construction. SBCCD aims to achieve the voluntary CALGreen Tier 1 for all new construction and major

renovations, and Tier 2 when possible. To qualify for Tier 1, the building must meet Tier 1 prerequisites and a sufficient number of electives requirements. In the 2022 code cycle, the key Tier 1 prerequisite for water conservation is achieving a 12% reduction in indoor water use against code minimums, while the Tier 2 prerequisite is a 20% reduction. A 12% reduction against an already leading-edge building standard nationwide is a strong move take leadership in reducing per capita water consumption to aid and abet long-term water supply concerns.

3.2 GOAL 2

Utilize native and adaptive vegetation to minimize irrigation water use

Key Performance Indicator: Annual outdoor water consumption, gal/yr

Key Initiatives

- ▶ 3.2.1 Reduce irrigation demand through the planting of native and adaptive vegetation with each new construction or major renovation. Consider opportunities to xeriscape new and existing spaces.
- ▶ 3.2.2 Consider phased retrofitting of existing landscapes with native or adaptive species.
- ▶ 3.2.3 Each potential project assesses the environmental and economic benefits of landscaping modifications, such as reducing the impact of heat islands and enhancing campus identities.

A simple and passive strategy of reducing outdoor water consumption is to reduce irrigation demand through the planting of native and adaptive vegetation as opposed water-intensive species such as turf grass. SBCCD will explore opportunities for native and adaptive vegetation and xeriscaping with each new construction or major renovation in Bond Measure CC, such as the new Technical Building. SBCCD will also consider phased retrofitting of existing landscapes with native or adaptive species and/or xeriscaping strategies. For each potential project, SBCCD will assess the environmental and economic benefits of landscaping modifications, such as reducing the impact of heat islands and enhancing campus identities.

3.3 GOAL 3

Expand the use of alternative water supplies to reduce potable water use

Key Performance Indicator: Annual recycled water use, gal/yr

Key Initiatives

- ▶ 3.3.1 Explore the opportunity for using non-potable well water for toilet flushing and potentially cooling tower make-up water
- ▶ 3.3.2 Investigate the viability of bringing Purple Pipe to Valley College
- ▶ 3.3.3 When recycled water is available, include dual piping in all new construction

Potable water consumption can be decreased by using alternative water supplies to meet non-potable water demands such as flushing toilets, irrigation and process water. One type of alternative water supply is recycled municipal wastewater. The State aims to triple recycled municipal wastewater from 2015 levels by 2030. Distributing the recycled wastewater from wastewater treatment plants to a potential user requires long-term infrastructure upgrades for both parties as reclaimed non-potable water cannot be piped with potable water. SBCCD will coordinate with local municipal water suppliers to investigate the viability of bringing recycled water to Valley College. If and when recycled water becomes available, SBCCD will install dual piping in all new construction.

In addition to recycled municipal wastewater, other non-potable sources of water can be used to offset potable water consumption. Crafton Hills College already mitigates potable water consumption by using non-potable groundwater to irrigate a significant portion of its landscape. SBCCD will investigate other opportunities for reclaiming water, such as rainwater harvesting, grey water reuse and condensate catchment.



3.4 GOAL 4

Reduce potable water use by 25% by 2030

Key Performance Indicator: Potable water use reduction, %

Key Initiatives

- ▶ 3.4.1 Complete three previous Water Initiatives.
- ▶ 3.4.2 Provide all new construction and major renovations building with water sub-metering.
- ▶ 3.4.3 Install building-level water sub-meters for each building.

In alignment with the State Chancellor's Climate Action and Sustainability Goals, SBCCD aims to achieve a 25% reduction by 2030 from current levels. Similar to energy metering, SBCCD plans to expand its existing water metering network and submeter where possible in order to enable data collection for benchmarking, fault detection and opportunities for improvement.

3.5 GOAL 5

Establish partnership with the local water district to promote implementation of best practices and education about the local water cycle and ecosystem

Key Performance Indicator: Potable water use reduction, %

Key Initiatives

- ▶ 3.5.1 Establish a partnership with the local water district to organize an interactive educational fair that engages students, faculty, and staff in learning about water conservation best practices, the significance of the local watershed, and the unique ecosystem of the Santa Ana River.

Greater engagement with the local water district will offer additional insights to how the SBCCD community interacts with the local water ecosystem. In conjunction with workshops and events sponsored by SBCCD, events hosted with the water district will expand our community's appreciation for water systems and offer additional opportunities for engagement.



4.0 TRANSPORTATION

Similar to the sustainable energy and water approaches, sustainable transportation should first prioritize reducing demands. Electric vehicles, although significantly better in comparison to its gasoline or diesel counterparts, do not emit ‘zero’ emissions. Electric vehicles emit more greenhouse gases than gasoline cars during the manufacturing process due to the rare metals needed to build batteries. However, over the entire lifecycle of the vehicles, electric vehicles emit, on average, half the greenhouse gas emissions of a gasoline car. Therefore, although electric vehicles and other ‘zero emission vehicles’ of the like significantly reduce carbon emissions, reducing the need for them is the most cost- and carbon-effective approach.

4.1 GOAL 1

Establish a transportation demand management plan to encourage alternative modes of transport and reduce single-occupancy vehicle (SOVs) demand

Key Performance Indicator: Vehicle miles traveled

Key Initiatives

- ▶ 4.1.1 Promote existing transit subsidy program.
- ▶ 4.1.2 Conduct Transportation Survey to establish the frequency of travel and mode of commute to gather information regarding various aspects of current transportation behavior.
- ▶ 4.1.3 Install bike racks near existing facilities and provide bicycle racks at all new facilities.
- ▶ 4.1.4 Establish a transportation demand management plan by incentivizing alternate modes of transport such as walking, public transit, micro-mobility, and rideshare.
- ▶ 4.1.5 Identify potential carpool incentives to reduce single-occupancy vehicle trips.
- ▶ 4.1.6 Implement a ridesharing program for employees and students in collaboration with AQMD and recruit a volunteer to serve as Transportation Coordinator.

Due to low density in San Bernardino and a lack of a dense public transit network, many students and faculty drive to campus. SBCCD aims to establish a transportation demand management plan to offset these factors by incentivizing and facilitating alternative modes of transport such as walking, public transit, micro-mobility and rideshare.

The plan will consider various transportation demand tactics such as carpool priority parking and micro-mobility incentives. The reduction in SOVs will be monitored through a reduction in total vehicle miles traveled. The plan will build on existing transportation demand management strategies, such as the transit subsidy program that allows students to ride buses for free.

4.2 GOAL 2

All new purchases of fleet vehicles shall be zero emissions by 2025, to achieve a full conversion of the fleet by 2035

Key Performance Indicator: Percent of SBCCD fleet vehicles that are zero emissions, %

Key Initiatives

- ▶ 4.2.1 Begin transitioning campus security to zero-emission vehicles, then target conversion of forklifts, courier vehicles, maintenance vehicles, and any other fleet vehicles.

In alignment with the Innovative Clean Transit Regulation set by the State, SBCCD will ensure all fleet vehicles will be zero emission vehicles by 2025, working towards a full transition to a zero-emission fleet by 2035. SBCCD has already adopted the use of electric golf carts for facilities operations. Remaining gasoline or diesel vehicles, such as the security patrol vehicles, will be phased out through end-of life replacements.

4.3 GOAL 3

Install electric vehicle (EV) charging infrastructure to promote the use of EV’s within the local community

Key Performance Indicator: Number of EV chargers

Key Initiatives

- ▶ 4.3.1 Support the fleet change and encourage the SBCCD community to use electric vehicles by building out all EV-capable parking spaces required by Title 24 with EV charging infrastructure.
- ▶ 4.3.2 Collaborate with SCE to utilize utility and/or state funding for these charging stations, where possible.

To support the fleet change and to encourage the SBCCD community use electric vehicles, SBCCD will build out all EV-capable parking spaces required by code. The plan will consider various transportation demand tactics such as carpool priority parking and micro-mobility incentives. The reduction in SOVs will be monitored through a reduction in total vehicle miles traveled. The plan will build on existing transportation demand management strategies, such as the transit subsidy program that allows students to ride buses for free.



5.0 MATERIALS

Solid waste is one of the more tangible and visible sustainability issues. Students interact, and directly produce, waste on a day-to-day basis. Given this, in addition to optimizing facility waste operations, waste efforts need to also engage students with proactive education and enable them with supportive infrastructure. In all sectors of the district, waste will be tackled by first reducing the amount produced through source reduction and reuse. Then, the district will focus on how to recycle waste to create new products, like composting to create fertilizer. Finally, if possible, the district will then see how to recover energy from the waste produced before or after it is sent to the landfill.

5.1 GOAL 1

Reduce waste going to the landfill by 50% compared to current levels by 2030

Key Performance Indicator: Waste diversion percentage, %

Key Initiatives

- ▶ 5.1.1 Track waste diversion percentages.
- ▶ 5.1.2 Task the Sustainable Task Force with reviewing annual waste audits and evaluating strategies to improve waste diversion percentages.
- ▶ 5.1.3 Employ source reduction, recycling, and composting efforts where possible.
- ▶ 5.1.4 Increase the number of water bottle filling stations and show locations in campus maps and wayfinding.
- ▶ 5.1.5 Coordinate on-campus collection events for Universal Waste, such as e-waste, batteries, and lamps, to facilitate proper disposal and recycling within the community.

SBCCD will align with the State Chancellors Office to strive for a 50% reduction in waste going to the landfill by 2030. To achieve this reduction, SBCCD will employ source reduction, recycling, and composting efforts where possible. To benchmark and measure progress to this goal, it is crucial that SBCCD begin tracking waste diversion percentages. The Sustainable Task Force will conduct annual waste audits to understand what the waste stream is currently comprised of and evaluate opportunities for operational waste improvements.

5.2 GOAL 2

Increase procurement of sustainable products and services by 25% compared to current levels by 2030, on a cost basis

Key Performance Indicator: Waste diversion percentage, %

Percentage of sustainable products procured by costs, %

Key Initiatives

- ▶ 5.2.1 Establish a district-wide procurement guideline that provides direction to those involved in the procurement process on how to make sustainable procurement decisions.
- ▶ 5.2.2 Explore the feasibility of centralizing procurement and/or developing an online procurement platform, to better regulate and encourage sustainable procurement across the District.
- ▶ 5.2.3 Partner with sustainable suppliers to increase sustainability.

In alignment with the State Chancellor's Office goals, SBCCD shall increase the procurement of sustainable products and services by 25% by 2030, as measured on a cost basis. To achieve this, SBCCD will establish a district-wide procurement guideline that provides direction to those involved in the procurement process on how to make sustainable procurement decisions. SBCCD will also explore the feasibility of centralizing procurement and/or developing an online procurement platform, to better regulate and encourage sustainable procurement across the district.





6.0 ONGOING ENGAGEMENT AND TRANSPARENCY

At SBCCD, we are deeply committed to cultivating a culture of continuous engagement and transparency. We value the contributions of every member of our community, from students to faculty, staff, and stakeholders. The following three goals outline our strategic path towards achieving heightened engagement and transparency. Through consistent, open dialogue and active collaboration, we aim to develop a vibrant and environmentally-aware campus. Our vision is to set a benchmark in responsible environmental stewardship and inspire others to do the same.

6.1 GOAL 1

Track and report ongoing sustainability performance against goals every five years starting in 2025

Key Initiatives

- ▶ 6.1.1 Create an implementation matrix and recruit volunteers to address operational sustainability, including campus engagement, waste auditing, and Scope 3 carbon emissions.

To lead in the realm of sustainability, SBCCD will demonstrate honest and measurable progress to its goals. SBCCD will update its sustainability plan every five years, tracking progress through the stated key performance indicators and adjusting course where needed depending on external trends. SBCCD will also engage its student and faculty population through the formation of a Sustainable Task Force. The Sustainable Task Force will be comprised of student, faculty, and facility ambassadors. They will spearhead initiatives that cannot be solved from operational changes alone, such as scope 3 carbon mitigation and community waste patterns. The Sustainable Task Force will be the voice for ensuring SBCCD is on track to achieving its vision for sustainability.

6.2 GOAL 2

Utilize social media, newsletters, KVCR, and a new, student-led sustainability organization to regularly engage the campus community about initiatives and sustainable behaviors

Key Initiatives

- ▶ 6.2.1 Leverage social media platforms to effectively promote and encourage sustainable behavior changes.
- ▶ 6.2.2 Prepare and distribute quarterly newsletter focused on encouraging sustainable behaviors.
- ▶ 6.2.3 Reintroduce the Community Garden and begin hosting farmer’s markets, local trade markets, etc. and open a food bank on campus.
- ▶ 6.2.4 Partner with KVCR to explore possibilities for producing sustainability-related content, raising public awareness, and promoting environmentally responsible behavior within the community.
- ▶ 6.2.5 Support the establishment of a student-led sustainability organization or club, empowering students to identify and address the environmental issues they find most relevant and engaging, while fostering a sense of community and shared responsibility.

Maintaining consistent and active engagement throughout SBCCD is a critical component of achieving our sustainability goals. Establishing a student-led sustainability organization will help ensure there is an ongoing dialogue between students and the SBCCD administration regarding the success and visibility of sustainability in the campus community.

6.3 GOAL 3

For all new construction and major renovations over 30 ksqft, achieve CALGreen Tier 1 and LEED Gold at a minimum, and CALGreen Tier 2 and LEED Platinum where possible

Key Initiatives

- ▶ 6.3.1 Incorporate this goal into buildings standards for a transparent, holistic, and systematic approach to integrating sustainability into SBCCD’s infrastructure.

SBCCD is at an opportune point of time where operational facilities documents such as the district-wide building standards and an Owners Project Requirement (OPR) template, are being developed in parallel to this plan. Integration of whole-building sustainable requirements, such as LEED Gold and CALGreen Tier 1, into the district-wide building standards and the OPR sets up a protocol for consistent and ambitious steps towards sustainability.



7.0 EDUCATION

7.1 GOAL 1

Enhance curricular educational opportunities for sustainability

Key Performance Indicator: Number of sustainability-inclusive programs offered

Key Initiatives

- ▶ 7.1.1 Expand the offerings of sustainability-focused or related courses, fostering environmental awareness and equipping students with the knowledge and skills to contribute to a greener future.
- ▶ 7.1.2 Prepare students for careers in the expanding sustainability industry, and expand avenues through certificates, badges, associate degrees, etc.
- ▶ 7.1.3 Provide prospective students with full visibility to the outline of each course and their sustainable attributes.
- ▶ 7.1.4 Organize sustainability-focused events, lectures, and workshops to foster awareness and active engagement in sustainable practices among students, faculty, and staff.

SBCCD’s main mission is to prepare its students for jobs of the future. Policy, market, and social trends have made it clear that green jobs are jobs of the future. SBCCD has already taken steps to support its students with the knowledge and skills necessary to excel in the future market by establishing several sustainability programs and courses. Valley College’s Green Technician program teaches students how to design, install and maintain solar power systems. As part of Valley College’s Automotive Program, SBCCD has developed a “Introduction to Hybrid and Electric Vehicle Technology” course. SBCCD aims to expand its sustainability course offerings in part by establishing an electric vehicle charging and zero net energy program, as well as extracurricular opportunities for additional sustainability awareness and engagement independent of a student’s chosen career path.

7.2 GOAL 2

Establish both campuses as a living laboratory by using sustainability initiatives an opportunity for hands-on learning

Key Performance Indicator: Number of students engaged in ongoing sustainability initiatives


Key Initiatives



- ▶ 7.2.1 Capitalize on on-campus sustainability initiatives as educational opportunities.
- ▶ 7.2.2 Add signage and displays showcasing on-site sustainability initiatives by building a living laboratory.
- ▶ 7.2.3 Establish a community garden at SBVC, providing students with a space for hands-on learning, fostering environmental awareness, and promoting sustainable practices.




All the aforementioned sustainability initiatives offer an opportunity for campus communities to learn. Implementing on-site renewable energy generation at Valley College could offer hands-on, practical skill-building to further the Green Technician program offered at Valley College. Integrating dual piping into building designs to receive recycled wastewater could expose Water Supply Technology students to the theoretical systems they learn in-class. The vast variety of sustainability initiatives incorporated into this plan can be used to launch additional programs and showcase SBCCD as a living laboratory.



Appendix A: Sustainability Goals Matrix

CATAGORIES	SUSTAINABILITY GOALS	KEY INITIATIVES
<div>1 CARBON MITIGATION</div>	<div>1.1 Carbon Neutrality by 2035 (Scope 1 and 2)</div>	<div><div>1.1.1 Complete a greenhouse gas inventory of all Scope 1, 2 and 3 emissions. Update every five years. Publicly share a comparative carbon footprint analysis with peer institutions to facilitate collaborative learning and foster regional impact awareness.</div><div>1.1.2 Complete a Climate Action Plan (CAP) to meet or exceed goals and provide a roadmap for achieving them.</div><div>1.1.3 Evaluate projects in a holistic, life-cycle means to understand the carbon footprint, life-cycle costs, opportunity cost of funds, and Return on Investment.</div></div>
<div>2 ENERGY</div>	<div>2.1 Retro-Commissioning Program</div> <div>2.2 Onsite Renewables</div> <div>2.3 Fully Electric Buildings</div> <div>2.4 ZNE Campus</div> <div>2.5 Community Resilience Hub</div> <div>2.6 Collaboration with Utilities</div> <div>2.7 Reduce Energy Usage</div> <div>2.8 Smart Capabilities</div>	<div><div>2.1.1 Conduct equipment inventory and benchmark the Energy Usage Intensity (EUI) of each building.</div><div>2.1.2 Install building-level electrical sub-meters.</div><div>2.1.3 Add sub-meters to measure major electrical loads (i.e. HVAC, lighting & plug loads) in new construction and major renovation projects.</div><div>2.2.1 Develop and implement a solar energy masterplan.</div><div>2.2.2 Perform feasibility analysis to add battery storage along with renewable power.</div><div>2.3.1 Conduct a district-wide electrification study to assess the feasibility of integrating electrification into district building standards and to understand its implications on utility costs and infrastructure upgrades.</div><div>2.4.1 Design new buildings to be zero-net-energy (ZNE) ready.</div><div>2.4.2 Conduct a ZNE campus feasibility study and implement initiatives.</div><div>2.5.1 Consider feasibility of piloting microgrids and energy storage for increased energy resilience.</div><div>2.5.2 Consider ways to integrate resilience focused design for new buildings.</div><div>2.6.1 Collaborate with Southern California Edison (SCE) and other organizations to utilize incentives & grants for energy efficiency, zero net energy design and/or resilience hub piloting.</div><div>2.7.1 Investigate the feasibility of conducting outdoor classes to minimize energy consumption associated with indoor classroom settings and promote environmental sustainability.</div><div>2.8.1 Implement and optimize “smart” building systems, including occupancy sensors, to efficiently manage HVAC and lighting systems, reducing energy consumption and promoting sustainable practices.</div></div>

CATAGORIES	SUSTAINABILITY GOALS	KEY INITIATIVES
<div>  3 WATER </div>	<div> <div>3.1 Indoor Water Efficiency</div> <div>3.2 Native and Adaptive Vegetation</div> <div>3.3 Water Reuse and Reclamation</div> <div>3.4 Reduce Potable Water Use 25% by 2030</div> <div>3.5 Local Partnerships for hands-on Education</div> </div>	<div> <div>3.1.1 Retrofit existing building indoor water fixtures and fittings to meet CALGreen.</div> <div>3.1.2 For new construction and major renovations, achieve CALGreen Tier 1 at a minimum, and Tier 2 when possible.</div> <div>3.2.1 Reduce irrigation demand through the planting of native and adaptive vegetation with each new construction or major renovation.</div> <div>3.2.2 Consider phased retrofitting of existing landscapes with native or adaptive species.</div> <div>3.2.3 Each potential project assesses the environmental and economic benefits of landscaping modifications, such as reducing the impact of heat islands and enhancing campus identities.</div> <div>3.3.1 Explore the opportunity for using non-potable well water for toilet flushing and potentially cooling tower make-up water.</div> <div>3.3.2 Investigate the viability of bringing Purple Pipe to Valley College.</div> <div>3.3.3 When recycled water is available, include dual piping in all new construction.</div> <div>3.4.1 Complete three previous Water Initiatives.</div> <div>3.4.2 Provide all new construction and major renovations building with water sub-metering.</div> <div>3.4.3 Install building-level water sub-meters for each building.</div> <div>3.5.1 Establish a partnership with the local water district to organize an interactive educational fair that engages students, faculty, and staff in learning about water conservation best practices, the significance of the local watershed, and the unique ecosystem of the Santa Ana River.</div> </div>
<div>  4 TRANSPORTATION </div>	<div> <div>4.1 Alternative Transportation</div> <div>4.2 All ZEV Fleet by 2035</div> <div>4.3 EV Charging</div> </div>	<div> <div>4.1.1 Promote existing transit subsidy program.</div> <div>4.1.2 Conduct Transportation Survey to establish the frequency of travel and mode of commute to gather information regarding various aspects of current transportation behavior.</div> <div>4.1.3 Install bike racks near existing facilities and provide bicycle racks at all new facilities.</div> <div>4.1.4 Establish a transportation demand management plan by incentivizing alternative modes of transport such as walking, public transit, micro-mobility and rideshare.</div> <div>4.1.5 Identify potential carpool incentives to reduce single-occupancy vehicle trips</div> <div>4.1.6 Implement a ridesharing program for employees and students in collaboration with AQMD and recruit a volunteer to serve as a transportation Coordinator.</div> <div>4.2.1 Begin with transitioning campus security to zero-emission vehicles, then target conversion of forklifts, courier vehicles, maintenance vehicles, and any other fleet vehicles.</div> <div>4.3.1 Support the fleet change and to encourage the SBCCD community to use electric vehicles by building out all EV-capable parking spaces required by Title 24 with EV charging infrastructure.</div> <div>4.3.2 Collaborate with SCE to utilize utility and/or state funding for these charging stations where possible.</div> </div>

CATAGORIES	SUSTAINABILITY GOALS	KEY INITIATIVES
<div>  <div>5 MATERIALS</div> </div>	<div>5.1 Reduce Waste Going to Landfills 50% by 2035</div> <div>5.2 Increase Procurement of Sustainable Products and Services by 25% by 2030</div>	<div> 5.1.1 Track waste diversion percentages. 5.1.2 Task the Sustainable Task Force with reviewing annual waste audits and evaluating strategies to improve waste diversion percentages. 5.1.3 Employ source reduction, recycling, and composting efforts where possible. 5.1.4 Increase the number of water bottle filling stations and show locations in the map. 5.1.5 Coordinate on-campus collection events for Universal Waste, such as e-waste, batteries, and lamps, to facilitate proper disposal and recycling within the community. </div> <div> 5.2.1 Establish a district-wide procurement guideline that provides direction to those involved in the procurement process on how to make sustainable procurement decisions. 5.2.2 Explore the feasibility of centralizing procurement and/or developing an online procurement platform, to better regulate and encourage sustainable procurement across the district. 5.2.3 Partner with suppliers to increase sustainability. </div>
<div>  <div>6 ENGAGEMENT AND TRANSPARENCY</div> </div>	<div>6.1 Track Sustainability Goals</div> <div>6.2 Engagement</div> <div>6.3 CALGreen Tier 1 and LEED Gold</div>	<div> 6.1.1 Create an implementation matrix and recruiting volunteers to address operational sustainability, including campus engagement, waste auditing, and scope 3 carbon emissions. </div> <div> 6.2.1 Leverage social media platforms to effectively promote and encourage sustainable behavior changes. 6.2.2 Prepare and distribute quarterly newsletter focuses on encouraging sustainable behaviors. 6.2.3 Reintroduce the Community Garden and begin hosting farmer’s markets, local trade markets, etc. and open a food bank on campus. 6.2.4 Partner with KVCR to explore possibilities for producing sustainability-related content, raising public awareness and promoting environmentally responsible behavior within the community. 6.2.5 Support the establishment of a student-led sustainability organization or club, empowering students to identify and address the environmental issues they find most relevant and engaging, while fostering a sense of community and shared responsibility. </div> <div>6.3.1 Incorporate this goal into buildings standards for a transparent, holistic and systematic approach to integrating sustainability into SBCCD’s infrastructure.</div>
<div>  <div>7 EDUCATION</div> </div>	<div>7.1 Sustainable Education</div> <div>7.2 Hands On Learning</div>	<div> 7.1.1 Expand the offerings of sustainability-focused or related courses, fostering environmental awareness and equipping students with the knowledge and skills to contribute to a greener future. 7.1.2 Prepare students for careers in the expanding sustainability industry. Expand avenues through certificates, badges, associates degrees, etc. 7.1.3 Provide prospective students with full visibility to the outline of each course and their sustainable attributes. 7.1.4 Organize sustainability-focused events, lectures, and workshops to foster awareness and active engagement in sustainable practices among students, faculty, and staff. </div> <div> 7.2.1 Capitalize on on-campus sustainability initiatives as educational opportunities. 7.2.2 Add signage and displays showcasing on-site sustainability initiatives by building a living laboratories. 7.2.3 Establish a community Garden at SBVC, providing students with a space for hands-on learning, fostering environmental awareness, and promoting sustainable practices. </div>

**THE BEST WAY TO PREDICT THE FUTURE
IS TO CREATE A SUSTAINABLE ONE."**





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