CSBA

Climate Change Task Force Report

Recommendations and strategies for California public schools to address the climate crisis

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Contents

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Introduction

Changes to the global climate represent an existential threat to California's students and schools. Due to extreme weather events in recent years such as wildfires, floods and drought, students throughout the state have experienced social-emotional trauma, lost learning time, and missed countless educational experiences and opportunities to excel academically. Public school districts and county offices of education have incurred damage to their facilities (with some campuses having been completely destroyed), sustained significant economic and social damage in their communities, and borne the lasting impact of these disasters on those they serve. It is critical for schools to be active in conversations with policymakers about climate adaptation, as climate impacts do not follow school district boundary lines, nor do the consequences of climate change pause during school days.

Because schools play a critical role in their communities during the response to climate disasters and are a key component of county emergency response plans, they must be a part of broader climate conversations and collaborations. Schools also play an essential role in supporting the physical, mental and social-emotional health and well-being of children, youth and families, and to their staff during the recovery phase of a disaster.

In recognition of the myriad challenges and threats posed to California's schools, students and families by global climate change, and the degree to which the issue is of substantial concern to education leaders, school staff and students, the Board of Directors of the California School Boards Association approved the formation of CSBA's first-ever Climate Change Task Force in late 2019.

The task force was convened with the mission of identifying areas in which CSBA can help local educational agencies (LEAs) throughout California address climate change and its impacts on schools, and to compile resources to help local school governance teams address the issue. The task force held six virtual meetings during 2020 and 2021, chaired by 2020 CSBA President and Azusa Unified School District trustee Xilonin Cruz-Gonzalez. The content of this report, as well as the resources available to LEAs on CSBA's website, reflect the findings of the Climate Change Task Force.

In this report, the Climate Change Task Force offers a public education perspective on why climate change must be addressed, delineates its policy recommendations for supporting LEA efforts to address climate change, and offers insight on local LEA strategies in areas such as purchasing authority, environmental literacy in the K-12 curriculum and fostering opportunities for the inclusion of student voices. Additionally, this report examines ways to bring public school voices into broader climate conversations via partnerships and collaboration between LEAs and other local, state, and federal government entities, nonprofit organizations and businesses, and examines the critical issues of environmental justice and equity.

Also included at the end of this report are various examples from throughout the state of how school districts and county offices of education are expanding environmental literacy, creating more sustainable educational campuses, and preparing students to enter a new economy that has ever-increasing green industry opportunities.

To access climate change resources for local educational agencies, including sample resolution language, visit: *www.csba.org/climatechange*

CSBA Resources for Local Educational Agencies

As part of its work, the Climate Change Task Force (with assistance from staff) developed and identified a set of online resources for CSBA members, available at www.csba.org/climatechange. An overview of these resources is provided below.

Sample resolution language

Crafted by the Climate Change Task Force, this fully customizable sample resolution can serve as a guide for LEAs in pursuit of climate change objectives. A tip sheet from the task force on tailoring the resolution to fit local needs is also included.
Sample resolution: (PDF) (Word) | Tip sheet

Videos

- 2020 Annual Education Conference: "What California schools can do to address the climate crisis"
- Webinar: "Addressing Environmental Literacy in the Age of NGSS"

CSBA business affiliates

Some CSBA business affiliates offer products and services that may be of assistance to boards of education in addressing local energy and environmental issues. Current affiliates are included on the CSBA Climate Change page.

CSBA sample policies and regulations

CSBA member LEAs who subscribe to CSBA Gamut Policy have access to several CSBA sample policies and regulations related to local environmental issues:

- 3510 - Green School Operations (Policy)
- 3511 - Energy And Water Management (Policy)
- 3511.1 - Integrated Waste Management (Policy)
- 3511.1-R(1) - Integrated Waste Management (Regulation)
- 3514 - Environmental Safety (Policy)
- 3514.1 - Hazardous Substances (Policy)
- 3514.2-R(1) - Integrated Pest Management (Regulation)
- 3514-R(1) - Environmental Safety (Regulation)
- 6142.5 - Environmental Education (Policy)
- 7111-R(1) - Evaluating Existing Buildings (Regulation)

Resources also available for:

- Funding and Grant Opportunities
- Climate Information and Advocacy
- Climate Literacy/School Environments
- Building and Energy Efficiency
- Green Careers

I. The public education perspective: Why global climate change must be addressed

The consensus of CSBA's Climate Change Task Force is that human-caused global climate change presents a significant threat to all Californians, and recent climate-related events are having an enormous and devastating impact on the state's public schools and its nearly 6 million students — an impact that must be addressed now to reduce additional harm to current and future generations.

California is consistently positioned as a national leader in action on climate and environmental issues — including the state's recently restored federal authority to set more stringent auto emission standards and a robust 2021 legislation package that included, among other initiatives, funding for 1,000 zero-emission school buses. Yet, the cumulative impacts of recent climate disasters and their impacts on infrastructure and public health are grim, and the mathematics of worldwide carbon emissions and rising temperatures suggest immediate and significant action is needed to prevent additional harm.

Worldwide impacts of climate change

The February 2022 Working Group II contribution to the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC)[1], the United Nations body for assessing the science related to climate change, finds that:

- "Human-induced climate change, including more frequent and intense extreme events, has caused widespread adverse impacts

1 IPCC, 2022: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change; https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/

and related losses and damages to nature and people, beyond natural climate variability. Some development and adaptation efforts have reduced vulnerability. Across sectors and regions, the most vulnerable people and systems are observed to be disproportionately affected. The rise in weather and climate extremes has led to some irreversible impacts as natural and human systems are pushed beyond their ability to adapt *(high confidence)*."

- "Global warming, reaching 1.5°C in the near-term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans *(very high confidence)*. The level of risk will depend on concurrent near-term trends in vulnerability, exposure, level of socio-economic development and adaptation *(high confidence)*. Near-term actions that limit global warming to close to 1.5°C would substantially reduce projected losses and damages related to climate change in human systems and ecosystems, compared to higher warming levels, but cannot eliminate them all *(very high confidence)*."

CSBA's Policy Platform emphasizes the connection between the circumstances that children experience and their ability to learn and thrive, making "Conditions for Children" one of the four pillars of the association's Platform, which guides its efforts in leadership and advocacy.

CSBA Policy Platform: Pillar 3, Improve Conditions of Children (Preamble)

"The primary responsibility of public schools is to educate students. The ability of children to attend school, to be engaged and learning in the classroom and to achieve academic success is significantly affected by conditions in their daily lives. The mental, physical and social-emotional health of each child, the social and economic obstacles they and their families may face, and the environments in which they live all impact a child's ability to learn. All children need access to appropriate support services.

Improving the outcomes for public education in California is a complex challenge. The research and documented success of the collective impact achieved by mobilizing multiple organizations to collaborate to find solutions for communities is compelling, and CSBA believes this must be a key strategy for meeting this challenge. No one agency can solve this problem alone, and CSBA is dedicated to convening the conversations and sustaining collaborations at every level that will bring our vision to fruition — children unbounded by circumstance."

Click here to view response to the IPCC Sixth Assessment, "Education for Climate Action - Three Recommendations for Sustainable and Climate Resilient Schools During COP26" from the Resource Center for Sustainable and Climate Resilient Schools Changemakers.

In an April 4, 2022 press release announcing the Working Group III contribution to AR6, IPCC Chair Hoesung Lee states that, "we are at a crossroads. The decisions we make now can secure a liveable future. We have the tools and know-how required to limit warming. I am encouraged by climate action being taken in many countries. There are policies, regulations and market instruments that are proving effective. If these are scaled up and applied more widely and equitably, they can support deep emissions reductions and stimulate innovation."

The impacts on California

In response to the April IPCC report, California Gov. Gavin Newsom's administration released California's Climate Adaptation Strategy (climateresilience.ca.gov) on the same day, outlining what the administration called an "all-hands-on-deck approach to building climate resilience across California" while referencing the state's vanishing Sierra snowpack, life-threatening heat waves and record-breaking wildfires. The adaptation strategy centers on the following six priorities:

- Strengthen protections for climate-vulnerable communities
- Bolster public health and safety efforts to protect against increasing climate risks
- Build a climate-resilient economy
- Accelerate nature-based climate solutions and strengthen climate resilience of natural systems
- Make decisions based on the best available climate science
- Partner and collaborate to leverage resources

Following the release of the Climate Adaptation Strategy, California's non-partisan Legislative Analyst's Office (LAO) on April 5, released a six-part report (including a section devoted to K-12 education) on climate impacts across California[2], a series "intended to help policymakers think about how climate change will impact various sectors."

- The LAO finds that "while a changing climate does impact the environment, its effects are significantly more widespread.

2 Climate Change Impacts Across California," Legislative Analyst's Office (April 5, 2022); https://lao.ca.gov/Publications/Series/1

Climate stressors present California with five key climate hazards: (1) extreme heat events, (2) more severe wildfires, (3) more frequent and intense droughts, (4) flooding due to extreme precipitation events, and (5) coastal flooding and erosion resulting from sea-level rise. Besides affecting natural resources, these hazards have major impacts on public health and safety, as well as property and infrastructure."

- The LAO further finds that "climate change has a wide variety of direct and indirect health effects on Californians. In particular, rising temperatures and extreme heat events are projected to increase deaths and exacerbate conditions like cardiovascular disease and kidney failure. Similarly, additional wildfire smoke driven by a changing climate leads to higher levels of respiratory illness, preterm births, and deaths."

Impacts of climate change on schools, students, families and staff

The LAO report on the impacts of climate change on K-12 education[3] finds that "more frequent wildfires and extreme heat waves will increase the likelihood that schools and child care providers will need to respond to climate-driven emergencies and public health issues. More extreme weather events and conditions also negatively affect student learning, school facilities, and district budgets. Students are likely to experience more frequent climate-related school closures, and schools may need to quickly shift between in-person and remote learning."

Click here to view the Fiscal Crisis & Management Assistance Team (FCMAT)'s 2020 memo detailing fiscal impacts on Paradise Unified School District as a result of the devastating 2018 Camp Fire.

The K-12 education section further details the increasingly likelihood that schools will need to respond to emergencies and public health issues and that modifications to existing and future school facilities will be required. The report also details significant fiscal impacts from climate change. Some costs will be predictable in long-term planning, such as growing utility costs from the increased use of air conditioning. However, others may be more erratic or volatile, such as "relocating schools to temporary locations, repairing or rebuilding damaged schools, purchasing and deploying protective equipment such as sandbags to prevent

flooding, or providing staff and students with face masks to protect from smoke."

The challenges detailed in the LAO report directly impact the ability of local school governance teams to provide a robust K-12 education for every student (as extensively delineated in CSBA's Mission Statement and Policy Platform). In addition to the effects on students and their families, climate-related disasters impact school staff. During a time when many LEAs are already plagued by staffing shortages, consideration of the impacts on school staff should be part of governance team discussions on climate mitigation.

Of significant concern for LEAs are the impacts of climate-related natural disasters and resulting lost instructional opportunities.

Lost learning days

According to data compiled by *CalMatters*[4], since the 2002–03 school year — the earliest year for which the state has retained such records — California public schools have reported approximately **34,000 total days lost to emergency closures (wildfire, natural disaster or extreme weather, student safety or infrastructure concerns) over a period of 18 years**.

- **19 percent** of those 34,000 lost days occurred in **2017–18**, when **6,415 closure days** impacted **1,691 schools** and **972,479 students** (approximately 15 percent of the statewide total).
- **14 percent** of those 34,000 lost days occurred in **2018–19**, when **4,898 total closure days** impacted **2,262 schools** and **1,268,350 students** (nearly 20 percent of the statewide total).

3 "Climate Change Impacts Across California: K-12 Education," Legislative Analyst's Office (April 5, 2022): https://lao.ca.gov/reports/2022/4586/Climate-Change-Impacts-K-12-Education-040522.pdf

4 "Disaster Days: California Public School Closure Database 2002-2019 https://disasterdays.calmatters.org/california-school-closures

LEAs filing at least one Request for Allowance of Attendance Due to Emergency Conditions (J-13A) forms, by year:

- **2016–17:** 21
- **2017–18:** 358
- **2018–19:** 472
- **2019–20:** 164
- **2020–21:** 113

According to data provided to CSBA from the California Department of Education, in 2016–17, **21** LEAs (including school districts, county offices of education or charter schools) filed one or more *Request for Allowance of Attendance Due to Emergency Conditions* (form J-13A[5]), which are filed by LEAs to stave off significant loss of revenue due to evacuations or dangerous air quality resulting from wildfires, or from planned power shutoffs. In 2017–18, that number increased to **358** LEAs, and to **472** in 2018–19.

5 CDE data represents closure dates requested in a Form J-13A request and does not necessarily capture all closure days outside of the dates submitted in the request that may have occurred at an LEA. J-13A forms are filed in instances where one or more schools are closed entirely, or experience a material decrease in attendance of 10 percent or more due to a fire or other emergency condition. Forms were filed due to evacuation, state of emergency, dangerous air quality or planned power shutoffs.

'Eco-anxiety' or 'climate anxiety'

Lost instructional time is a measurable factor for understanding the relationship between climate-related disasters and reduced learning opportunities. The impact of climate change on student mental health and well-being also has implications for K-12 schools and their ability to attain positive outcomes for their students. While there are multiple factors that influence student mental health, recent research suggests that "eco-anxiety" or "climate anxiety" contributes to health challenges for public school students.

- A 2016 study from the Global Change Research Program[6] concluded that children are among those "at higher risk for distress and other adverse mental health consequences from exposure to climate-related or weather-related disasters," consequences that include "post-traumatic stress disorder (PTSD), depression, and general anxiety, which often occur at the same time."

"While the effects of climate change now are terrible, the younger generation is going to truly experience the worst of it. Because of this, climate change is an incredibly important issue for young people. They are passionate about it and determined to contribute in any way they can to secure their future. Enlisting the help of our students in California's fight against climate change will help ensure our success."

— Sameera Hussain, Student, Harmony Magnet Academy (Porterville USD, '21) and Climate Change Task Force member

- A 2019 Kaiser Family Foundation survey[7], in conjunction with the *Washington Post*, found that a majority of teens said the issue of climate change makes them feel "afraid" (57 percent), "motivated" (54 percent), and "angry" (52 percent). About 43 percent say they feel "helpless" and only 29 percent say they feel "optimistic."
  - The same poll found that nearly two-thirds of teens who believe in human-caused climate change said they feel

6 The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. U.S. Global Change Research Program (2016); https://health2016.globalchange.gov/low/ClimateHealth2016_08_Mental_Health_small.pdf

7 The Kaiser Family Foundation/Washington Post Climate Change Survey (November 2019); https://www.kff.org/report-section/the-kaiser-family-foundation-washington-post-climate-change-survey-main-findings/; "The Environmental Burden of Generation Z," Washington Post (February 3, 2020): https://www.washingtonpost.com/magazine/2020/02/03/eco-anxiety-is-overwhelming-kids-wheres-line-between-education-alarmism/

that there are things they can do personally to make a difference when it comes to reducing the effects of climate change, and that 41 percent of teens said they have taken action to reduce their own carbon footprint.
  - Further, the poll found that approximately 25 percent of teens surveyed have engaged in some type of political action in the past three years to express their views on climate change (i.e., participation in a school walkout, in a protest or rally or have contacted a government official on the issue).

- Emphasizing the urgency and importance of local climate adaptation, Sarah Jaquette Ray, chair of Environmental Studies at California State Polytechnic University, Humboldt, and the author of "A Field Guide to Climate Anxiety," told the *New York Times* in March 2022[8] that the climate crisis would be "the fight of our lives with ups and downs; it takes courage and discipline to keep cultivating community and health right where you are, especially amid such bad news."

As explored in additional sections and case studies throughout this report, California's students have shown a passion for climate advocacy — as also evidenced, in part, by the series of climate strike walkouts that occurred nationwide and globally in 2019 and similar demonstrations thereafter — and a desire to assume a leadership role in meeting the challenge of global climate change head on. Further, students throughout California have shown they are eager to gain more knowledge about the opportunities presented by the "greening" of the economy and to be in a competitive position to pursue future careers in green energy.

California's public schools have a critical role to play in meeting this demand and have an opportunity to emerge as leaders in the fight to address global climate change, while ushering in the next generation of innovators who will continue that fight.

Put simply, public schools should have the opportunity to do what they do best: educate.

"I think the question that we have to ask ourselves is, are we, as the educational system, giving the space for students to lead on climate change issues? It's great if we're embedding information about climate change resiliency in curriculum and enrichment opportunities. But, more importantly, we need to think about how we, as leaders of school districts, are intentionally engaging students. We need to give them the space to educate us."

— Xilonin Cruz-Gonzalez, CSBA 2020 President, Climate Change Task Force Chair and Azusa Unified School District trustee

8 "'OK Doomer' and the Climate Advocates Who Say It's Not Too Late," New York Times (March 23, 2022); https://www.nytimes.com/2022/03/22/climate/climate-change-ok-doomer.html

Key terms in this report:

- **Climate mitigation/action:** avoiding and reducing emissions of heat-trapping greenhouse gases into the atmosphere to prevent the planet from warming to more extreme temperatures
- **Climate adaptation:** actions taken to reduce the negative impact of climate change on a community
- **Ecological footprint:** the impact of a person or community on the environment, expressed as the amount of land required to sustain their use of natural resources
- **Climate resilience:** the ability to anticipate, prepare for and respond to hazardous events, trends or disturbances related to climate
- **Environmental justice:** the fair treatment of people of all races, cultures and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies.

II. Policy recommendations
for supporting LEA efforts to address climate change

Numerous LEAs across California seek to proactively become more climate resilient and meet their established environmental goals. Recognizing that public schools play a vital role in addressing the climate crisis and building a workforce prepared to adapt to changes in the global economy, CSBA's Climate Change Task Force offers the following policy recommendations:

1. **Access to available funding from the state for facilities upgrades and other local programs to address climate change and local environmental issues must be more equitable for public schools.**
   - *The state of California has set aggressive climate goals, and all government entities across the state have a role to play in meeting these goals. Public schools must be included in this discussion, and available funding awards must reflect the important role that schools play — in particular, schools in rural areas and those in historically overlooked and disadvantaged communities.*
     a. **When funding is made available by the state for climate mitigation, adaptation and action, a portion of the overall funding amount should be allocated specifically for public schools.**
        - *Public schools should be prioritized in available funding for environmental and energy-related*

facilities projects and upgrades, as well as programmatic support (i.e., curriculum support) to ensure that LEAs have the resources to meet their local goals on energy usage, sustainability and climate action.

- State and regulatory agencies with funding available should demonstrate strong efforts to more impactfully engage with public schools and local governance teams regarding the available awards.
- Public schools should have the opportunity to emerge as vocal advocates and educational partners with state and regulatory agencies on climate issues.

b. **Prioritizing public schools requires an alternative to the "first come, first served" model of funding.**

- Alternative methods to the "first come, first served" model in prioritizing LEAs access to funding may include (but are not limited to) the consideration of:
  - **Local environmental risk**
  - **Location** of the LEA
  - Number of **total students** served by the LEA
  - Number of **disadvantaged students** served by the LEA
- In considering these factors, it is critical to recognize that:

i. **More than half of California school districts**[9] are considered "small" districts; 58 percent of all California school districts serve less than 2,500 students (based on average daily attendance), while 42 percent serve less than 1,000 students and 12 percent serve less than 100 students,
and

ii. Many small districts, despite serving fewer total students than their larger counterparts, serve high concentrations of disadvantaged students *and* are in geographic areas that are highly susceptible to impacts of climate change, such as on the physical and mental health and safety of students and staff.

2. **Technical assistance is essential for public schools to access available funding and other resources to address climate change.**

a. LEA staff should have access to direct assistance for application development and submissions where feasible.
b. Application processes should be simplified and streamlined to the greatest extent possible for ease of completion.

- In many instances, LEAs in areas of higher environmental risk that serve smaller numbers of students do not employ staff with experience in navigating such funding applications.
- Smaller LEAs also lack the staff bandwidth to complete funding applications in the timely manner required to compete with other entities for available funding.

3. **State and federal economic stimulus programs and infrastructure development should prioritize improvement of career technical education (CTE) programs and advancement of local environmental goals.**

- As demand increases statewide and nationwide for renewable energy and reduction of carbon emissions, various industries (i.e., transportation, building, energy, agriculture, etc.) are seeking a Just Transition in their workforce.
- As defined by Gov. Newsom's Office of Planning and Research, a Just Transition is "an integrated approach and vision that supports workers and their families and communities impacted by shifting economies, industry changes, or disruptions. Historically, Just Transition has been a means for workers, communities, and other stakeholders to advocate for resources and support to adapt during periods of economic change."
- Local schools have a key role to play in preparing the next generation of workers who will be at the forefront of changing business and labor practices.

a. State and local efforts to modernize CTE courses and apprenticeship programs should, where appropriate, include green energy and technology job training and career development.
b. LEAs are encouraged to work with local workforce development agencies (i.e., State Workforce Investment Board) and higher education institutions — such as community colleges and the public university system — to help ensure that CTE is part of the conversation surrounding emerging green technology and its accompanying workforce.

9 CSBA 2021-22 Fast Facts: https://www.csba.org/en/About/AboutCSBA/CSBAFactsandFigures

Per these recommendations, CSBA is supportive of state and federal funding provided **outside of Proposition 98 and existing funding sources** for LEAs implementing these and other recommendations to achieve their climate goals. Where it would not conflict with existing education funding sources and would align with CSBA's Policy Platform, CSBA may, at its discretion:

- Support federal and state (non-Proposition 98) funds for programs relating to school facility upgrades and construction that address issues of energy efficiency, electricity generation, climate impact, etc.
  - Pursuant to task force recommendation 1b above, CSBA supports distribution of funds (including school construction bond funds) in ways that do not favor or benefit certain LEAs over others in terms of a "first come, first served" award or burdensome application processes.
  - Climate funding opportunities from various agencies that are allocated specifically for LEAs should be consolidated for ease of access.
- Advocate on behalf of LEAs where appropriate at the regulatory level.
  - The voice of public schools should be heard and the needs of LEAs considered as regulations are proposed to be added or amended.
- Support federal and state (non-Proposition 98) funds for programs to reduce or eliminate reliance on high-emission fossil fuel driven vehicles, including school bus fleets, auto pools, maintenance equipment and related infrastructure.
- Support LEA policies regarding student community service credit to include activities relating to the environment, recycling, climate-related activities, green energy, etc.
- Support state-funded (non-Proposition 98) teacher training and recruitment programs in environmental and climate-related sciences at all grade levels.
- Support development of supplemental instruction curriculum tools for use across the state curriculum standards that include environmental- and climate-related instruction in all grade levels.
  - This can include climate resiliency in curriculum frameworks, as has been done with Next Generation Science Standards, and may potentially include math and/or social science frameworks.
- Join the Local Government Sustainable Energy Coalition to track proposed regulatory changes, funding etc.

III. Local strategies to address climate change

In addition to policy changes at the federal, state, county and municipal levels, there are avenues for LEAs to be proactive in addressing the impacts of climate change and preparing schools to become climate resilient. This section includes actions for governance teams to consider in their ongoing work.

How governance teams can shape climate action

Governance teams can influence schools' climate response in several ways:

- **Establish an LEA vision and goals related to leadership for climate-resilient schools, environmental literacy and CTE** to prepare students for green jobs. The vision and accompanying goals can shape actions such as choosing professional development for staff and curricular options for students, influence purchasing decisions and model environmental stewardship for staff and students.
- **Strategic use of spending authority:**
  - To build community buy-in, identify potential cost savings over time. Measure savings and report that information back to the community.
  - Consider developing a purchasing plan or framework that offers guidance about how to make cost-effective and environmentally sound purchases. This might include sustainable food purchasing, janitorial supplies and equipment that is energy efficient.
  - Review capital investments and infrastructure for climate impacts and cost-effectiveness. When considering facilities upgrades or development, focus on materials, ventilation,

landscape design and energy use, among other factors. Note that green spaces and gardens can keep schools cooler, and drought-resistant landscaping will reduce water use.

- **Collaborate and advocate with other organizations, groups and agencies**. LEAs that have already implemented various climate initiatives can share their experience and expertise with other governance teams. Likewise, neighboring LEAs may be able to share their strategies in developing climate action plans. Partnerships are further explored in depth in Section IV of this report.
- **Pass a climate resolution**. A template resolution and tip sheet for customizing it to meet local needs, developed by the Climate Change Task Force, can be found at www.csba.org/climatechange.

The importance of student voice

The work of building climate-resilient schools and addressing climate change requires an ongoing commitment. The Climate Change Task Force recognizes that students are essential partners and leaders in this work. Furthermore, encouraging student participation in the process provides an opportunity to develop key civic engagement and career skills. Some work that students undertake could be supported more formally through internships, elective credits and career pathways development.

Work groups or advisory committees

The Climate Change Task Force recognizes that there is no one-size-fits-all solution for LEAs seeking to address climate change. Understanding the local context, including existing resources and needs, will allow LEAs to develop a targeted set of strategies that are fiscally and environmentally responsible, as well as encouraging educational opportunities for students and staff.

To develop local climate action plans, governance teams may consider forming **a work group or advisory committee** to study local assets, conduct a needs assessment and develop recommendations for local efforts. This is a prime opportunity to include students and their families as partners in the process.

Curriculum and instruction

Schools can address college and career readiness by integrating environmental literacy into the K-12 curriculum. The most apparent connection can be made through science instruction. Governance teams can review work other California LEAs have done to integrate environmental literacy into NGSS.

Climate-related instruction provides an opportunity for students to apply their learning to real-world — even local — issues. Other organizations, like the California History-Social Science Project, have developed resources to connect California's Environmental Principles and Concepts with the History-Social Science Framework. Governance teams may encourage district staff to identify ways to incorporate environmental literacy into the curriculum.

At the secondary level, LEAs can explore developing or expanding CTE that prepares graduates for work or study in fields such as renewable energy, environmental sustainability, engineering and more. One such example of this approach, Porterville Unified School District, is explored in greater detail in Section VI of this report.

Questions that governance teams might ask their work group or committee to explore:

- What is the current ecological footprint and/or greenhouse gas (GHG) emissions inventory of our school community?
  - In order to achieve climate mitigation targets, schools need to understand the scope of their own GHG emissions and do their part to meet regional reduction targets in alignment with other public and private agencies.
  - Tools to explore the local ecological footprint include Cal EnviroScreen and the California Healthy Places Index. Both are described further in Section V of this report.
- What are our school communities already doing to reduce their ecological footprint and become more climate resilient?
- What are the greatest vulnerabilities our community faces when it comes to environmental issues and climate impacts?
- Who are our potential partners in this work?
- How does our curriculum incorporate environmental literacy (including the California Next Generation Science Standards [NGSS]) and provide opportunities for students to be prepared for college and careers?

IV. Bringing public school voice into the broader climate conversation via partnerships and collaboration between LEAs and other local, state and federal government entities, nonprofit organizations and businesses

Key questions for school district and county board members and education leaders to consider in this section:

- What municipal, county and/or nongovernmental agencies in my region currently working on climate issues can I partner with?
- Who are the champions for sustainability, environmental literacy, and climate resilience in my school communities?

Climate change requires all-hands-on-deck and all-hands-in partnership

Addressing climate change requires an all-hands-on-deck mentality, and response from many systems working in partnership — government, health, education, business, etc. K-12 schools must be a part of broader climate mitigation and adaptation efforts and collaborations taking place across these systems.

Public schools have tremendous resource needs related to energy, transportation and food. According to the Aspen Institute's K12 Climate Action Plan, K-12 schools "are among the largest energy consumers in the public sector, serve over 7 billion meals annually with related food waste and use about 480,000 diesel school buses for transportation–the largest mass transit fleet in the country." (2021)

Educational partners need to be present and a part of the process when municipal and county governments establish climate action

plans. With a seat at the table, schools can contribute to and benefit from a better understanding of state, federal and local climate mitigation goals, as well as how other public and private agencies in their region are approaching these goals. Likewise, municipal and county agencies will benefit from including school stakeholders as shifting paradigms require tapping into social institution leverage points such as government, family, religion and education.

Because K-12 schools interact with significant percentages of the population on a regular basis, as well as serve as a trusted messenger in the community, they have the potential to be a leverage point for change.

Navigating forward in a complex system has challenges and opportunities

While K-12 schools must be involved in regional climate action and adaptation planning, it may be challenging to navigate the many nested and overlapping systems to do so — systems that also take place within a broader context of complex overlapping local, state and federal public jurisdiction, special districts and private land ownership.

Because of this complexity, it can be challenging to understand who is responsible for meeting state and federal climate targets established by executive orders and legislation, and it can be unclear who belongs at the table when establishing local regional goals and strategic plans. Despite this complexity, K-12 public education is uniquely positioned to catalyze change and to sustain a long-lasting paradigm shift. Therefore, local, state and federal government entities, nonprofit organizations, and businesses will benefit from being in partnership with the school communities with which they overlap boundaries.

"The planetary emergency unfolding around us is, first and foremost a crisis of thought, values, perception, ideas and judgment. In other words, it is a crisis of mind, which makes it a crisis of those institutions which purport to improve minds."

— David Orr, Professor of Environmental Studies at Oberlin College

Example partnerships may include, but are not limited to:

- **Municipal and county climate action and adaptation planning involving school stakeholders**. When city and county governments conduct climate action and adaptation plans, they should include LEAs with overlapping jurisdictional boundaries, and schools must accept the responsibility to attend these planning sessions. Educational partners who might participate include school and county board members, district and site level administrators, teachers, classified staff, athletic directors, expanded learning coordinators, representatives from PTA/PTO and other parent advisory groups, student leaders and more. It is critical that local governments make a concerted effort to involve these groups and to be mindful that the academic calendar can make it challenging for them to participate.
- **LEAs can establish their own climate action and adaptation plans and share guidance and expertise among local government agencies**. While schools can align to local municipal and county jurisdictional plans, it is critical that schools develop and implement plans that are specific to the unique context of schools. These plans may utilize frameworks such as the 4Cs Whole-School Sustainable and Climate Resiliency Integration Framework (Yeghoian, 2013), which supports establishing goals and strategies that focus on all aspects of school life including campus facilities and operations, curriculum and instruction, community engagement and institutional culture. County and municipal agencies that have participated in climate action and adaptation plans can assist school districts by making their plans more readily accessible and understandable to school communities (see an example of this type of partnership between the San Mateo County Office of Sustainability and San Mateo County Office of Education: SMC Climate Action Plan Overview and Jurisdictional Analysis). Likewise, LEAs with a history of environmental initiatives and climate action can serve as resources for other local government agencies as well as neighboring LEAs.

Achieving this type of regional success and collaboration requires capacity building, networking and models of collective impact through regional backbone support and technical assistance.

Knowledge and skills for environmental sustainability and climate readiness have been left out of certificated training programs for teachers and administrators and are not generally a part of onboarding training for classified staff. Therefore, there is a tremendous amount of short- and long-term capacity building needed to help faculty, staff and administrators in K-12 schools with the foundational knowledge and skills necessary to engage in whole school sustainability and climate-resilient transformations.

Examples of different capacity building strategies include, but are not limited to, the following:

- **Catalyzing change with dedicated and compensated sustainability and climate ready staff**. In order to catalyze change, other sectors (including higher education) have implemented models of staffing that include chief sustainability officers or directors/coordinators of sustainability and climate readiness. This type of expertise is critical during all stages of sustainability and climate-ready school initiatives to help manage projects and navigate the shifting challenges of the climate crisis. Similar to education's capacity shift in technology integration, schools now need to make a similar investment to hire environmental literacy, sustainability and climate-ready school coordinators and directors.

- **Professional learning for educators**. In California, there are already a number of existing mandates, policies and expectations for schools regarding environmental sustainability and climate resilience (see overview curated by the San Mateo County Office of Education). To take advantage of these resources, teachers, staff and administrators need access to professional learning in a range of subjects including making connections between climate disasters and trauma that will help them meet these increasing requirements and expectations. These trainings are critical for educators who are already experiencing the ongoing impacts of environmental injustice. This type of professional learning can be led by a county office of education that has invested in an environmental literacy and sustainability initiative, or by partnership with a nonprofit agency specializing in doing this work in K-12 schools — find examples here of sustainability networks and organizations providing consultative services to schools.
- **Professional learning for preservice educators**: In the long term, it is necessary to support knowledge and skill building for new educators. Teacher-, administrator- and other staff preparation programs need to foster a robust understanding of the ecological and climate crisis as well as skills for integrating sustainable, climate-resilient and trauma-informed practices into curriculum and the daily operation of schools.

Regional networks

Networks and communities of practice at the statewide level can be leveraged to support leadership and innovation for local sustainable and climate-ready schools initiatives. In addition to capacity building, regional networks are necessary for leveraging strategic partnerships with governmental and non-governmental agencies to efficiently integrate a comprehensive suite of green and climate-ready facilities and operations technical assistance services, funding and resources to districts and schools.

In California, this type of regional networking can be done effectively through county offices of education, as they are a natural intermediary between these agencies and K-12 districts and schools.

"County offices have a broader view of local education's needs because we serve and work with all school districts in our counties, which in any one county can vary greatly by size, demographics and student needs. Because well-run county offices serve school districts by collaborating on joint problem solving, county offices could potentially provide regional leadership, encouraging and guiding LEAs to create and implement climate adaptation plans — with the proper funding."

— Gina Cuclis, 2022 President-elect, California County Boards of Education (CCBE); Trustee, Sonoma County Office of Education; Member, Climate Change Task Force

Additionally, emerging research across the U.S. shows that investments in a sustainability coordinator (and/or environmental literacy specialist) is often correlated with school district size (i.e., number of schools). The larger the school district, the more likely they are to have a sustainability coordinator (Verschuseren, 2021).

Because the majority of school districts across California are small-to-medium sized (see 2021–22 CSBA Facts and Figures), they are unlikely to have the resources to invest in a full-time sustainability coordinator or environmental literacy specialist. However, these smaller districts tend to work closely with their COEs, as they can provide additional staff support in the region and help to ensure equitable distribution of resources and services, starting with the most marginalized and underserved. Counties that have already made this investment have been able to accelerate transformative change within school communities.

The California Environmental Literacy Initiative (CAELI) has a number of innovation hubs that directly support local and regional action. The CAELI County Office of Education Innovation Hub has developed several tools and resources to support county offices in their efforts to support environmental literacy and sustainability initiatives in their regions, and this innovation hub also supports a statewide community of practice for county office leaders. CAELI also has a District Innovation Hub, which supports district leaders to move forward these initiatives with their school communities.

Since K-12 schools often serve as a central location of community activity, an investment in sustainable and climate resilient transformation in schools could have a ripple effect across those communities. With robust partnerships between federal, state and local entities, K-12 schools will have the opportunity to serve as a catalyst for accelerating transformative change within communities, minimize ongoing disruptions to learning from climate-related disasters, and provide equitable access to safe and healthy spaces for children, youth and adults to learn and thrive.

V. Environmental justice and equity

What is environmental justice?

Environmental justice recognizes that no single population should be disproportionately affected by how our society and economy operate, and that we must take action to correct historic, systemic injustices.

California law states: *"[E]nvironmental justice" means the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." [Gov. Code, § 65040.12, subd. (e)].*

CSBA Equity Statement:

CSBA recognizes that educational excellence requires a commitment to equity. California students bring a wide range of assets, abilities, backgrounds, and needs to their educational experience. Schools have an obligation to provide all students with the access and opportunities necessary for college, career, and life success. This requires school leaders to address practices, policies, and barriers that perpetuate inequities which lead to opportunity and achievement gaps. Effective school boards are equity-driven, making intentional governance decisions that combat institutional discrimination and bias (both explicit and implicit) and eliminate disparities in educational outcomes based on socioeconomic status, gender, gender identity, gender expression, race, religion, national origin, ethnicity, sexual orientation, disability, or family background.

Adopted by CSBA Board of Directors, September 2019

Going beyond the legal definition, some advocacy organizations view environmental justice in terms of the violation of basic human rights. For example, Detroiters for Environmental Justice emphasize that "all people and communities have the right to equal environmental protection under the law, and the right to live, work, and play in communities that are safe, healthy, and free of life-threatening conditions."[10]

Disadvantaged communities, which tend to be low income and communities of color, are often located in areas affected by pollution from industrial, agricultural and other sources. The locations of these communities can often be traced to redlining policies perpetuated for decades by government, financial and housing organizations.[11] The Fourth National Climate Assessment by the U.S. Global Change Research Program acknowledged these disproportionalities and laid out a clear nexus between equity and climate change:

> *"People who are already vulnerable, including lower-income and other marginalized communities, have lower capacity to prepare for and cope with extreme weather and climate-related events and are expected to experience greater impacts. Prioritizing adaptation actions for the most vulnerable populations would contribute to a more equitable future within and across communities."*

Additionally, schools with higher enrollments of low-income students are far more likely to have permanent buildings that are in poor or fair condition than other schools.[12] According to the Federal Emergency Management Agency (FEMA), aging buildings are particularly vulnerable to natural disasters.[13] Students' performance can be negatively affected by elevated temperatures in classrooms, and extreme heat days are responsible for school closures where facilities are not equipped with air conditioning.[14]

Environmental justice impacts in California

While California is a leader in identifying and prioritizing environmental justice, residents of under-resourced communities experience health and social welfare outcomes that include higher rates of asthma, cardiovascular disease, low birth weight, lower educational attainment, linguistic isolation, poverty, high housing costs relative to income and unemployment.

In evaluating the pollution burden communities bear, California considers proximity to air quality (ozone, particulate matter, diesel emissions), water quality, lead in paint, pesticide use, toxic releases from facilities; traffic impacts, cleanup sites, groundwater threats, hazardous waste generators and facilities, impaired water bodies, and solid waste sites and facilities. According to CalEPA, "… the population of the top 10 percent of neighborhoods with the highest pollution burdens and vulnerabilities consist of 91 percent people of color, while the populations of the 10 percent of neighborhoods with the lowest pollution burdens and vulnerabilities is 67 percent white."[15]

10 See https://detroitenvironmentaljustice.org/what-is-environmental-justice/
11 Richard Rothstein, The Color of Law: A Forgotten History of How Our Government Segregated America, 2017. See also https://www.segregatedbydesign.com/
12 Mary Filardo, Jeffrey Vincent, and Kevin Sullivan, "How Crumbling School Facilities Perpetuate Inequality," published in Phi Delta Kappan, April 29, 2019.
13 Debbie Alexander & Laurie Lewis (2014). Condition of America's Public School Facilities: 2012–13, NCES 2014-022, U.S. Department of Education, National Center for Education Statistics. Available at: http://nces.ed.gov/pubs2014/2014022.pdf
14 Greenberg, Zoe (2018) "Is the Heat Day the New Snow Day?" The New York Times, September 6. Available at: https://www.nytimes.com/2018/09/06/nyregion/heat-day-schools-extreme-climate-change.html
15 CalEPA, *CalEPA Updates Groundbreaking Environmental Justice Tool*," press release, October 13, 2021.

California policies, programs, and tools related to environmental justice

California has been a leader in passing laws and developing programs to identify communities disproportionately impacted by environmental issues. The impacts of climate change, such as extreme heat events, drought, wildfires, floods and rising water levels, are being felt more keenly in these communities, which often lack the infrastructure to better withstand these events. For example, low-income households may live in rental units, which are less likely to have air conditioning to withstand heat waves. "Toxic Tides," a 2021 study prepared by community-based organizations and academic researchers, determined that disadvantaged communities (as defined by CalEnviroScreen) are over five times more likely than the general population to live within one kilometer of one or more facilities at risk of flooding in 2050, and over six times in 2100.[16] In this section we provide an overview of California's policies.

Tools and resources for identifying environmental injustice

CalEnviroScreen is a screening methodology that can be used to help identify California communities that are disproportionately burdened by multiple sources of pollution. Now in its fourth iteration, CalEnviroScreen is regularly used by state agencies as a factor in determining where California Climate Investment funds will be directed. Communities that are in the top 25 percent for CalEnviroScreen, referred to by the state as disadvantaged communities (DACs), are often given higher priority for these funds.

LEAs statewide can also benefit from the use of CalEnviroScreen. In many communities, there is a strong correlation between schools that qualify for LCFF funds and the location of DACs. The federal government has recently announced it is developing a tool similar to CalEnviroScreen for use nationwide.

The California Healthy Places Index (HPI) tool was developed by the Public Health Alliance of Southern California to assist in exploring local factors that predict life expectancy and comparing community conditions across the state. The HPI provides overall scores and more detailed data on specific policy action areas that shape health, like housing, transportation, education and more. The HPI website offers other resources that may be useful, including an interactive map, graphs, data tables and a policy guide with practical solutions for improving community conditions and health. See the California Healthy Places Index for additional information.

California legislation

Senate Bill 1000 (2016) requires local government general plans (a key land use document) to include environmental justice policies. Adopted in 2016, SB 1000 requires local governments to identify environmental justice communities in their jurisdictions and address environmental justice in their general plans. This law has several purposes, including to facilitate transparency and public engagement in local governments' planning and decision-making processes, reduce harmful pollutants and the associated health risks in environmental justice communities, and promote equitable access to health-inducing benefits, such as healthy food options, housing, public facilities and recreation.

Assembly Bill 617 (2017) created the Community Air Protection Program's (CAPP), whose focus is to reduce exposure in communities most impacted by air pollution. Communities around the state are working together to develop and implement new strategies to measure air pollution and reduce health impacts. This first-of-its-kind statewide effort includes community air monitoring and community emissions reduction programs. In addition, the Legislature appropriated funding to support early actions to address localized air pollution through targeted incentive funding to deploy cleaner technologies in these communities.

Federal action on climate change and environmental justice

The Biden Administration is integrating climate change into every aspect of foreign and domestic policy.[17] On January 27, 2021, the President issued Executive Order 14008, which, among other things, directs every agency and department to develop its own climate action plan.

The executive order includes a section on "Securing Environmental Justice and Spurring Economic Opportunity" and states the policy of the current administration "to secure environmental justice

16 Toxic Tides fact sheet, retrieved at https://drive.google.com/file/d/1Zg-ZC-OROefaz0D8v_rgTrR0TvSJqxPbO/view.

17 https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/

and spur economic opportunity for disadvantaged communities that have been historically marginalized and overburdened by pollution and underinvestment in housing, transportation, water and wastewater infrastructure, and health care." The order creates an Environmental Justice Interagency Council that will develop a strategy to address current and historical environmental injustice as well as performance metrics. The executive order also creates a community notification program, similar to California's Community Air Protection Program, and creates in the Department of Health and Human Services an Office of Climate Change and Health Equity. Among other things, the federal government will begin publishing an annual environmental justice scorecard.

In response to the executive order, the U.S. Department of Education is developing a climate adaptation plan (CAP).[18] The draft CAP recognizes the impact of climate change on schools and students. It is explicit that some communities experience more detrimental effects due to climate change than others.

> *Climate change is impacting students, schools, and communities across the country. In California, in the 2018–2019 school year, more than 1 million students were impacted by school closures due to wildfires. After Hurricanes Maria and Irma in Puerto Rico, students missed an average of 78 days of school. Reporting in 2017 found that 6,353 schools serving 4 million children are in a floodplain. As just one example, flooding in West Virginia in June 2016 caused $130 million in damage to schools.[19]*

The Department of Education CAP states as one of its goals that it will "advance educational equity and justice in the context of climate adaptation." It establishes within the Department of Education a Climate Change Adaptation Work Group.

18 https://www2.ed.gov/about/reports/strat/sustainability/index.html
19 U.S. Department of Education, Climate Adaptation Plan, September 2021, Version 3.0, p. 7.

In the Los Angeles community of Pacoima, the **Valley Generating Station**, owned by the Los Angeles Department of Water and Power (LADWP), is near many schools. In 2020, LADWP revealed that the power plant had been leaking methane gas for at least three years. In addition, the I-5 freeway runs through Pacoima and neighboring Sun Valley, which also are home to landfills, recycling centers, junkyards, trucking companies and other industrial facilities. Residents of these communities are hospitalized for problems related to asthma at rates much higher than most of the state. While LADWP and the South Coast Air Quality Management District say they have found levels of methane and volatile organic compounds in the surrounding neighborhood are "within typical background levels," community activists want LADWP to close the plant. LADWP has committed to installing air quality monitors in the community and investing in clean energy projects in the Northeast San Fernando Valley.

Carlos Regalado Figueroa, a member of the CSBA Climate Change Task Force, worked on the campaign to close Valley Generating Station as a high school student. That experience inspired Regalado to get involved in other education and advocacy efforts and to pursue college studies that will prepare him to continue being a community leader.

Please continue to Section VI of this report for an additional example from Ventura Unified School District of how communities are addressing environmental justice issues.

VI. California schools in action:

Examples of innovation and advocacy on climate mitigation and adaptation from across the state

School districts and county offices of education across California are expanding environmental literacy, creating more sustainable educational campuses, and preparing students to enter a new economy that has ever-increasing green industry opportunities. They are achieving these educational goals by embedding environmental literacy into their curriculums, finding interactive ways to engage with students, and incorporating their local communities in their climate change initiatives. As this report has highlighted, the work for responsible climate action is multi-tiered and LEAs play a crucial role in that work. The following are examples of the innovative work being done by LEAs:

Porterville Unified School District

Climate Action Pathways for Schools (CAPS)

Porterville USD in Tulare County has a track record of advancing clean energy and environmental education. From 2012 to 2016, Porterville USD completed solar systems installations at 19 of its school sites. The district now gets 50 percent of its electricity generated from those solar systems.

Currently, the district partners with a nonprofit organization called Climate Action Pathways for Schools (CAPS) to pilot a program in which high school students in the district were hired as paid engineering interns to develop projects that reduced the districts' energy costs and greenhouse gas emissions. The student interns, over the course of a year, enacted a districtwide conservation program, tracked solar performance, and worked with district leadership on building, transportation and waste management. The initiatives spearheaded by the student engineers reduced emissions by 24 percent and saved the district $850,000 in energy costs in the first two years alone.

San Mateo County Office of Education

Environmental Literacy and Sustainability Initiative

The San Mateo County Office of Education runs an Environmental Literacy and Sustainability Initiative (ELSI) that provides San Mateo County schools with a wide range of technical assistance for professional development, programs to help integrate climate literacy into district curriculum, and support for creating green facilities and operations. The COE highlights federal, state and alternative funding opportunities for school districts to engage in green energy initiatives.

Over the past year, the initiative launched two fellowship programs, one for teachers and one for administrators, to encourage creating and implementing environmental justice curriculum and community impact projects. In January of 2020, the county office launched a Youth Ambassadors Leadership Program, which included 60 students from across San Mateo County who met to plan their own district impact projects addressing climate change. Some of the projects that came from the program included planting gardens, setting up tri-bin waste systems (separate bins for recycling, compost and landfill waste) and installing rain barrels. The ELSI also spearheaded a program to help schools create and expand outdoor learning spaces during the pandemic.

Riverside Unified School District

Community Air Quality Project and Clean Air Symposium

Students at the John W. North High School campus in Riverside Unified School District have long remained active in developing solutions for clean air research. In 2019, J.W. North students had the opportunity to work with research staff on a hands-on community air quality project, as a result of a partnership between the district and University of California, Riverside Center for Environmental Research and Technology, the UCR Center for Healthy Communities and the Coalition for Clean Air (with funding from the California Air Resources Board).

Students gathered neighborhood-level data on particulate matter level to understand the impact of air quality and climate change challenges in the Inland Empire and throughout the world. Environmental monitoring technologies were used to promote a deeper understanding of engineering and design concepts, while staff promoted student-centered learning and exploration through real-world models in identifying and responding to local air quality concerns. Through the development and delivery of climate-focused training programs and curriculum, 500 students have been involved in the community air work utilizing 50 air quality monitors across the community.

J.W. North students also put on an annual Clean Air Symposium to highlight their work, which includes art and poetry, student-produced public service announcements and special projects. Staff have also created lessons on air quality monitoring and analysis integrated into all chemistry classes while continuing to promote air quality and science career pathways."

Sacramento City Unified School District

EcoRise Sustainable Intelligence Curriculum

Sacramento City Unified School District has a wide range of initiatives and projects that aim to reduce the carbon footprint of their district. The district's sustainable schools program grants badges to individual schools when they complete goals related to energy, waste, water and others. SCUSD uses the EcoRise Sustainable Intelligence Curriculum throughout the district. This curriculum has 160 lessons in English and Spanish that emphasize real-world applications and hands-on projects. The curriculum aligns with both Common Core State Standards and Next Generation Science Standards.

Sacramento City USD hosts an annual Green Week in which school teams complete challenges in environmental and social categories, helping students gain new skills and show healthy habits. Students and staff earn points in competition challenges including using a reusable water bottle, using a bike for transportation, decreasing shower time, learning about environmental justice concerns and more. SCUSD also partners with its local municipal provider, the Sacramento Municipal Utility District, on a Youth Climate Summit, which includes a full day of programming on sustainable initiatives and action-planning strategies.

Antelope Valley Union High School District

Green Enterprise Academy

Antelope Valley High School created the Green Enterprise Academy, a small learning community with the goals of promoting greater climate literacy and connecting students with clean energy technology industries. As of 2019, the academy had approximately 300 students in ninth through 12th grades. The academy uses a hands-on, project-based college preparatory curriculum with projects ranging from solar plant development to engineering and robotics. The academy's mission prepares students for career options in clean technology and renewable energy industries by collaborating on projects and internships with industry leaders such as Lockheed, Northrup Grumman and NASA to prepare students for STEM and clean energy careers.

Encinitas Union School District

Farms Lab and "DREAMS" Campus

Encinitas Union School District has a 10-acre indoor and outdoor campus called the Farms Lab and Dreams Campus for all kindergarten through sixth grade students in the district. The "DREAMS" curriculum — which stands for Design, Research, Engineering, Art, Math and Science — aligns with the Next Generation Science Standards. The campus, which offers programs tailored to a K-6 curriculum, has several gardens, an ecology center, chicken coops, crop fields and an outdoor kitchen amphitheater. The Farm Lab is a certified organic farm and the district shares it with the community through the Encinitas Community Garden, farm dinners, an environmental film series, weekly farm stands and a community Ecology Center. In addition, the district supplied produce from the Farm Lab to the Encinitas community during the pandemic.

Oakland Unified School District

Emergency Resolution and Sustainability Advisory Council

Oakland Unified has several districtwide initiatives to improve energy sustainability including an energy conservation program, a green building initiative, waste reduction and green cleaning, and sustainability in nutrition services. Oakland USD has a long history of implementing projects that support environmental sustainability, including green school construction requirements, installing solar panels and energy efficient lights and HVAC systems, composting and recycling, and ending the use of styrofoam in food service. Working with nonprofit groups, Oakland Unified has obtained California Climate Investment funds to create green schoolyards at several schools located in areas considered disadvantaged by the state. Replacing asphalt with green infrastructure like gardens, trees and other natural spaces lowers the temperature of the yard, allows water to replenish the groundwater table instead of flowing through sewers, and provides mental health benefits.

In October 2020, Oakland USD adopted a climate emergency resolution that, among other things, sets goals of 100 percent clean electricity by 2030; setting up an interdepartmental task to develop a plan for integrating environmental sustainability into all aspects of the district, including curriculum; convening a Sustainability Advisory Council; and recognizing that climate solutions must advance racial and environmental justice.

Ventura Unified School District

SoCalGas Compressor Station

In Ventura, the Southern California Gas Company (SoCalGas) would like to retrofit a compressor station that is located near an elementary school and a Boys and Girls Club. This part of Ventura has historically been heavily industrial with a long history of environmental pollution. SoCalGas wants to replace three gas compressors built in the 1980s with four new ones that will have more power. The company also wants to replace an existing warehouse and office building. While the California Public Utilities Commission (CPUC) had initially approved the project in 2019, in August 2021 the CPUC directed the gas utility to halt the project and instead do further review and community outreach. Community groups and local elected officials, including board members from the Ventura Unified School District, had protested the project. Their advocacy revealed that the utility did not perform an in-depth assessment of relocating the project, which is in one of the few CalEnviroScreen DACs in the area. Community groups are calling for much stronger protections and clean-up requirements for the proposed project. Ventura USD has hired consultants to test air ducts and soil quality at the affected elementary school.

Ventura USD Board Vice President and CSBA Climate Change Task Force member Sabrena Rodriguez observed that residents of this area are not homeowners, and therefore it is difficult for them to add insulation and air conditioning or to change out windows — actions that could help improve indoor air quality. Rodriguez notes this area near the Ventura River is anticipated to experience flooding from rising sea levels, and that there is another elementary school less than a mile away, likewise susceptible to flooding.

Conclusion

School district and county office of education governance teams are positioned to play an essential role in bringing the public education voice into conversations surrounding climate adaptation and action, and providing leadership opportunities for the students they serve. CSBA is supportive of state and federal funding outside of Proposition 98 and existing funding sources that would benefit LEAs throughout California in achieving their local climate goals and would further the recommendations of the Climate Change Task Force.

LEAs can shape climate action by:

- Establishing a vision and goals related to leadership for climate-resilient schools, environmental literacy and CTE to prepare students for green jobs.
- Identifying climate-related strategies in spending authority (i.e., developing a purchasing plan for environmentally sound purchases and reviewing capital investments for climate impacts and cost-effectiveness).
- Passing a climate resolution (sample language available at www.csba.org/climatechange).
- Committing to providing opportunities for students to serve as essential partners and leaders in climate action.
- Forming workgroups or advisory committees (which should also include students) to study local assets, conduct a needs assessment and develop recommendations for local efforts.
- Integrating environmental literacy into the K-12 curriculum.

In furtherance of these LEA strategies and to help ensure their success, the CSBA Climate Change Task Force recommends that:

- Access to available funding from the state for facilities upgrades and other local programs to address climate change and local environmental issues must be more equitable for public schools.
  - This includes a portion of funding dedicated to public education, and a more equitable alternative to the "first come, first served" model of funding awards.
- Technical assistance should be made available for public schools to access available funding and other resources to address climate change.
  - Direct assistance with application processes should be available to LEA staff where feasible and the application processes should be simplified to the greatest extent possible.
- State and federal economic stimulus programs and infrastructure development should prioritize improvement of CTE programs and advancement of local environmental goals.

The existential threat posed to California's students and schools by global climate change will continue to worsen without immediate all-hands-in action across multiple systems (government, health, education, business, etc.). It is essential that public school governance teams take action now to ensure that their hands are in, and that their voices and the voices of the students they serve are heard.

If you have any questions regarding the content of this report, please contact us at csba@csba.org.

For additional information and resources for local boards of education, please visit www.csba.org/climatechange.

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