



SUSTAINABILITY REPORT



Period Covering March 1, 2021 – June 30, 2023

Approved by the Sustainable RSCCD Committee

November 15, 2023

TABLE OF CONTENTS

INTRODUCTION.....3

SUSTAINABLE RSCCD COMMITTEE MEMBERS: 2021-2023.....5

GOALS OF THE SUSTAINABILITY PLAN.....6

GOAL 1: CAMPUS & COMMUNITY ENGAGEMENT.....7

GOAL 2: CURRICULUM DEVELOPMENT14

GOAL 3: ENERGY16

GOAL 4: FACILITIES DESIGN & OPERATION20

GOAL 5: SOLID WASTE MANAGEMENT.....25

GOAL 6: SUSTAINABLE PROCUREMENT26

GOAL 7: TRANSPORTATION27

GOAL 8: WATER MANAGEMENT29

NONDISCRIMINATION POLICY33

EXHIBIT A: SANTA ANA COLLEGE BICYCLE RACKS AND HYDRATION STATIONS LOCATION MAP34

EXHIBIT B: SANTIAGO CANYON COLLEGE BICYCLE RACKS AND HYDRATION STATIONS LOCATION MAP35

EXHIBIT C: ELECTRICITY, GAS, AND WATER CONSUMPTION HISTORY FY 2012-2023.....36

INTRODUCTION

On March 3, 2015, the Rancho Santiago Community College District (RSCCD) Board of Trustees approved a District Sustainability Plan (“Plan”). The Plan outlined eight (8) goals in areas of sustainability: Campus & Community Engagement, Curriculum Development, Energy, Facilities Design & Operation, Solid Waste Management, Sustainable Procurement, Transportation and Water Management.

This report was compiled on behalf of the Sustainable RSCCD Committee (SRC) by the Facility Planning, District Construction and Support Services Department and covers approximately a two-year fiscal period. The previous report covered July 1, 2018 - March 1, 2021; therefore, this report covers the period of March 1, 2021 – June 30, 2023. The information was compiled through a collaborative effort between the colleges, District and members of the SRC. The report highlights the achievements, projects, programs, and plans completed as well as the work currently in progress in various phases of planning and implementation.

A major goal for SRC over the last several years has been focusing on reducing plastic and paper consumption. It was an objective of the committee to see that a new waste hauling service provider be contracted to assist the District in allowing for more sorting options in collection of waste, and by providing more detailed recycling data for the various sites.

Many sustainable activities are on-going, and several projects have been completed to meet the goals of the plan. The reporting method organizes the activities, programs, and projects to align the report outcomes with the identified eight (8) goals of the Plan. The organization of the reporting format allows for efficient collection of information by members of the SRC and is easily conveyed to interested parties. The SRC will continue to focus on implementing programs and projects outlined in Section 4 of the Plan: Sustainable Programs and Projects for Implementation.

An update to the 2015 plan is in development, with an expected publish date in 2025. The SRC is working to align the plan to better track performance in alignment with the California Community Colleges Chancellor’s Office Climate Action and Sustainability Goals, updated in 2021. The Goals have benchmarking and reduction milestones for 2025, 2030, and 2035, which the District will use to measure performance and guide its path to more sustainable awareness and practices.

The SRC continues to strive towards implementing the goals of the Sustainability Plan and is glad to present the report covering the period of March 1, 2021 through June 30, 2023.

ACHIEVEMENTS

- Compiled Utility Data Use for the last 10 years and established the baseline year as 2012-2013.
- The District has met the original annual goal stated in the Sustainability Plan 2015 to reduce energy consumption by 5% from baseline year (2012-13) on average through 2020-21. Years 2021-22 and 2022-23 saw a slight increase in energy usage following the pandemic; however, the District achieved an overall reduction of approximately 40,000 therms (gas) and 3.8 million kWh (electric) over the last 5 years when compared to the baseline year, equal to an average reduction of 12% in gas and 22% in electricity. Santa Ana College observed the largest increase in gas usage following the opening of the Science Center in July 2021, which accounted for over 120,941 therms, or 28% of the 436,983 therms consumed by that campus during the 2021-22 and 2022-23 years. In addition, several commissioning and operational tests were undertaken during the course of the last several years, which contributed to a significant increase in gas usage.
- The District has met the original annual goal stated in the Sustainability Plan 2015 to reduce water consumption by 5% from baseline year (2012-13) on average through 2019-20. Years 2020-21 and 2021-22 saw a slight increase in water usage following the pandemic; however, the District achieved an overall reduction of approximately 24 million gallons of water over the last 5 years when compared to the baseline year, equal to an average reduction of 30%.
- Incorporated several sustainable features in the new construction projects at both colleges.
- Accomplished the procurement of several new sustainable products and equipment.
- Continues to contract with a new waste hauler to track and provide data on waste and recyclable materials.
- Completed Phase 2 of the Irrigation Controller Upgrades at Santa Ana College and installed seven (7) new controllers. With these upgrades, Santa Ana College has a completely new smart irrigation controller system campus wide to help reduce water consumption.

Goals established by the Committee for the past Sustainability Reports are to minimize environmental impacts through:

- Implementing best practices for conserving resources and reducing waste
 - “Reuse for Better Use” initiative for plastic reduction
 - Paper reduction
- Implementing energy reduction and alternative energy generation strategies
- Constructing efficient buildings
- Developing partnerships that will further these activities

SUSTAINABLE RSCCD COMMITTEE MEMBERS: 2021-2023

Santa Ana College

Bart Hoffman, Vice President, Administrative Services (2018-Current)
James Kennedy, Vice President of Continuing Education (2014-2020, 2022-Current)

Kelvin Leeds, Faculty (2023-Current)

Tanisha Burrus, Classified Staff (2021-Current)
Aggie Sehm, Classified Staff (2018-2021)

Samanta Errera, Student (2020-2021)
Avinash Ramaswamy, Student (2021-2022)
Daniela Derramadero, Student (2021-2022)
Christopher Fesler, Student (2022-2022)
Jesse Villa, Student (2022-2022)
Amin Hairat, Student (2022-2022)
Anthony Cantoran, Student (2023-Current)

Santiago Canyon College

Arleen Satele, Ed. D., Vice President of Administrative Services (2016-Current)
Jose Vargas, Vice President of Continuing Education Orange Education Center (2016-Current)

Vanessa Engstrom, Faculty (2021-Current)
Daniel Oase, Faculty (2023-Current)
Charlie Malone, Faculty (2021-2022)
Angela Guevara, Faculty (2017-2021)
Mary Mettler, Faculty (2017-2021)

Ambar Nakagami, Classified Staff (2018-Current)

Jocelyn Montiel, Student (2020-2021)
Sebastian Pintea, Student (2021-2022)
Elisabeth Neely, Student (2021-2022)
Gabriel Lopez, Student (2023-Current)
Arriana Flores, Student (2023-Current)

District Office

Carri Matsumoto, Assistant Vice Chancellor, Facility Planning, District Construction & Support Services (2016-Current)
Linda Melendez, Director, Purchasing Services (2021-Current)
Tae Kim, Director of Facility Planning (2022-Current)
Hugo Curiel, Facilities Project Manager (2022-Current)
Simone Wolfe, Classified Staff (2019-Current)

GOALS OF THE SUSTAINABILITY PLAN

The Sustainable RSCGD Committee (SRC) has identified the following sustainability goals and priorities. The goals and priorities for the Sustainability Plan reflect campus needs, interests, and available resources. The SRC is in the process of revising the goals for the 2025 Sustainability Plan.

Goal 1- Campus & Community Engagement

Encourage participation in and awareness of sustainability issues through effective education and engagement. Integrate sustainability into all facets of student life, including student government, clubs, and organizations.

Goal 2- Curriculum Development

Facilitate the inclusion of environmental sustainability and social responsibility into existing curriculum and develop new curricula and career-oriented certificate and training courses with an emphasis on sustainability.

Goal 3- Energy

Utilize 2012-2013 benchmark study to establish annual energy use and demand reduction goals (target 5% reduction). Plan appropriate energy efficiency, demand reduction, or clean self-generation measures by mid-2015 to meet reduction goals.

Goal 4- Facilities Design & Operation

Design and construct all major capital projects and renovations to meet LEED Silver “equivalent” standard and operate facilities to meet solid waste, energy, and water use reduction goals. Employ sustainable landscaping practices.

Goal 5- Solid Waste Management

Continue to implement the landfill diversion program, expand it to include all sectors of recycling and waste reduction to landfills, and strive to meet the statewide landfill recycling goal of 75% by 2020.

Goal 6-Sustainable Procurement

Implement efforts to source campus food, materials, supplies, information technology, equipment, and resources from organizations committed to social responsibility and environmental sustainability.

Goal 7- Transportation

Reduce the reliance of students, faculty, and staff on single occupancy vehicle commutes by 5% within the next five years, and encourage the use of low and zero emissions vehicles.

Goal 8- Water Management

Perform water use benchmarking studies at both campuses and the District Office to better understand usage as compared to similar facilities and community college peers. Based on the results, establish annual water use reduction goals and plan appropriate measures to achieve goals.

The goals described above apply to both Santa Ana College and Santiago Canyon College, the education centers, and the District Office. The goals are listed in numerical order and are not necessarily listed by priority.

Vision Statement
<p><i>The Rancho Santiago Community College District holds sustainability to be a foundational principle in its current and future development.</i></p>
<p><i>As a responsible steward of natural resources and the environment, the District will endeavor to minimize its impact on the environment by implementing best practices for conserving resources, reducing waste, implementing energy reduction and alternative energy generation strategies, constructing efficient buildings, and by developing partnerships that will further these activities.</i></p>

GOAL 1: CAMPUS & COMMUNITY ENGAGEMENT

Goal Description

Encourage participation in and awareness of sustainability issues through effective education and engagement. Integrate sustainability into all facets of student life, including student government, clubs, and organizations.

ACHIEVEMENTS

A. Created a Sub-Committee in the Associated Student Government Devoted to Sustainability

Santa Ana College



Mission Statement: The Associated Student Government of Santa Ana College is committed to empowering students: by celebrating diversity; by supporting programs and activities that develop mutual understanding; by developing leadership qualities of honesty, advocacy, and integrity; by assisting the student in discovering success and happiness; and by endeavoring to build a future in which students are vitally involved in all academic and decision-making processes of the college.

The Associated Student Government (ASG) has created a Sustainability Commissioner position and this position serves on the Sustainable RSCCD Committee and promotes sustainability efforts within ASG as well as provides a student voice for sustainability advocacy for the students. The position leads the student effort for the annual Earth Day event. The Sustainability Commissioner brings together a group of interested students to help promote sustainability named the Sustainability Committee. Their mission, similar to the Commissioner's responsibilities, is to promote sustainability efforts within ASG as well as provide a space for sustainability advocacy. In helping to bring awareness to the student body, the committee is currently working on a project that promotes recycling, composting, and renewing.

Santiago Canyon College



Mission Statement: To promote and engage in student representation and involvement by safeguarding collegial governance and representative democracy, to influence institutional policy affecting student affairs, to facilitate campus-wide activities for the improvement of student life, and to provide a platform for the fundamental development of a cohesive and accountable group of student leaders at Santiago Canyon College.

The Associated Student Government of Santiago Canyon College established a "Green Operations Committee" and the committee continues to be active.

The position of Sustainability Commissioner is an appointed position. The Sustainability Commissioner is obligated to hold a minimum of one (1) event related to environmental sustainability and/or service in the fall and spring semesters. The Sustainability Commissioner is responsible for chairing the

Sustainability Committee. The Sustainability Commissioner is mandated to, but not limited to, attend the following required meetings: ASG Sustainability Committee meetings, ASG Activities Committee meetings, and ASG Executive Branch meetings. The Sustainability Commissioner shall present a report from their respective meetings to their governing bodies. The responsibilities of the Commissioner of Sustainability shall include, but not be limited to the following:

- Serves as a member of the Activities Committee
- Coordinates and assists with the planning of all sustainability-related events, including but not limited to Earth Day and at least one environmental service activity per semester
- Advises all ASGSCC entities and individuals on sustainable, eco-friendly practices
- Provides a calendar of planned events and activities within their purview to the Director of Outreach Operations
- Serves as the liaison for all ASGSCC-sponsored events and activities hosted in collaboration with college clubs and organizations that are within their purview

The senator description no longer specifically references the Sustainable RSCCD committee (or any other committee) to prevent ASGSCC from needing to amend the bylaws any time the committee names or information change.

The responsibilities of all Senate officers shall include, but not be limited to the following:

- Attending meetings of the Senate
- Presenting frequent reports to the Senate of all relevant actions and duties carried out within the officer's respective role and within any attended meetings
- Assists with any events and activities coordinated by the Senate

Each Senator shall be responsible for the following:

- Attends participatory governance meetings as assigned by the Vice President to provide an active student voice
- Assists with any ASGSCC events coordinated by the Senate and Vice President
- Organizes and hosts at least one event, activity, or survey per academic school year related to their assigned participatory governance committees
- Serves as a member of at least one ASGSCC standing committee

B. Sustainability Events

Both Colleges resumed annual Earth Day festivities in 2022 following the pandemic. The Sustainable RSCCD Committee attended Santa Ana College and Santiago Canyon College's respective Earth Day events. SRC ran a booth where students and community members could test their knowledge of recycling various materials. The SRC gave away reusable microfiber cloths and gift cards to the campus bookstore as prizes. The following sustainability infographics were also on display in front of the booth:

Reduce Your Use!

Before throwing something away, ask



- Is this something I can reuse? Reuse it!
- Is this something someone else could use? Donate or gift it!
- Are there any parts that can be upcycled? Make something new out of it!
- How do I responsibly throw this away? A quick web search can tell you if something should be sent to compost, recycle, e-waste, or landfill.

Before buying something new, ask

- Do I already have something else that will get the job done? Use that!
- Can I thrift/shop used? Give a product a second life!
- Am I buying something that will last?
- Can I buy from a company that uses less packaging or doesn't have to ship as far?



Learn more about RSCGD Sustainability:



<https://rscgd.edu/Departments/BusinessServices/sustainable-rscgd-committee/Pages/default.aspx>



Sustainable Swaps



Keep these reusable items with you to reduce your use of single-use paper and plastic products:

Bags



Food/Drink Containers

Reusable Straw



Utensil Set



Tip: Reusing what you already have

—even if it's plastic—is better than buying a new item, no matter how sustainable the new item is. There's no need to spend money on a bamboo utensil set if you already have perfectly good silverware in your kitchen drawer!

More zero waste sustainable swaps:



RECYCLE



CLEAN AND DRY!

HARD PLASTICS



METAL



GLASS



PAPER, CARDBOARD, CARTONS



LANDFILL

SOFT PLASTICS



FOOD & FOOD-SOILED PAPER



STYROFOAM



MIXED MATERIALS



Reducing Plastic and Paper use at RSCGD

in 3 easy steps!

1. Refuse

unnecessary plastic and paper products.

See our infographic on Sustainable Swaps to make this step a breeze!



2. Reuse

the paper and plastic you do end up with.

Make the most of the products before recycling/disposing of them. Save paper that has only been used on one side. Repair items when possible before replacing.

3. Shop Sustainably

to minimize future plastic and paper use.

Invest in products meant to last. Borrow, trade, thrift, and support local businesses and sustainable brands when possible. Buy in bulk to avoid excess packaging.



Santiago Canyon College

In 2022 Santiago Canyon College held its very first week-long festivities in celebration of Earth Day. The week kicked off with “Conserve to Preserve” which focused on the effort to save bees, Tuesday brought “Turn the tide” that concentrated on the acidification of the ocean and Wednesday shed light on effects of pollution with “Clean and Green”. The week culminated on Thursday, April 21st with Earth Fest where 25 participating tables had information booths, demonstrations and giveaways. Highlights included the OC Tesla club vehicles on display, Home Depot’s soil potting demos and the City of Orange CERT Team. The event was well attended and enjoyed by students, faculty and staff.

In 2023 Santiago Canyon College continued their new tradition and celebrated Earth Day all week long. This year’s theme was the elements fire, water, air and earth. Monday commenced with forest fire prevention, Tuesday brought a make your own jewelry activity out of recycled items and Wednesday cleaned up the air with succulent planting. The week ended on Thursday, April 20th with Earth Fest where 35 participating tables had information booths, demonstrations and giveaways. Highlights included the Honeywell Future Shapers program, Irvine Ranch Outdoor Education Center and the Associated Student Governments Thrifting booth where students were able to pick out previously loved clothing items and give them a second home to promote a reduction in clothing waste. The event was well attended and enjoyed by students, faculty and staff.

ASG and the Office of Student Life & Leadership also hosted the Huntington Beach Cleanup on September 24th, 2021, and Trick or Trash from October 31st through November 2nd, 2022. The Human Services Student Association (HSSA) Cleanup took place December 7th, 2022.



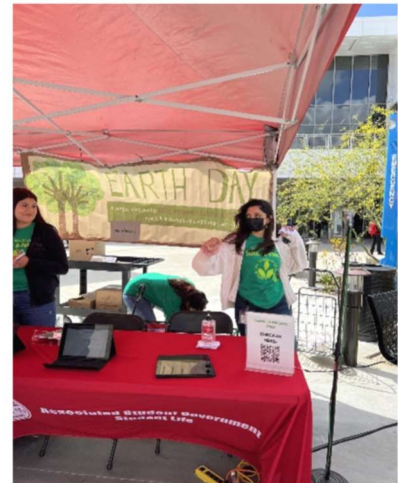


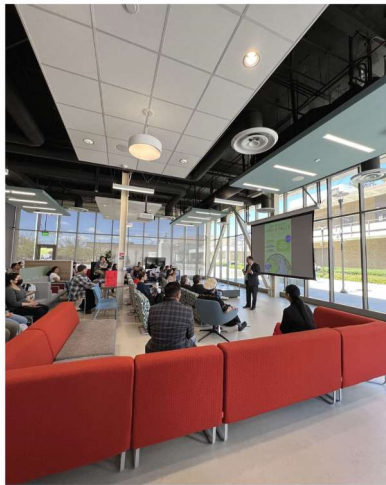
Santa Ana College

On April 20, 2022, Santa Ana College Associate Student Government relaunched its annual Sustain-A-Palooza event. The event highlights sustainability efforts in the community and educates students and the community on best practices and opportunities to positively impact sustainability.

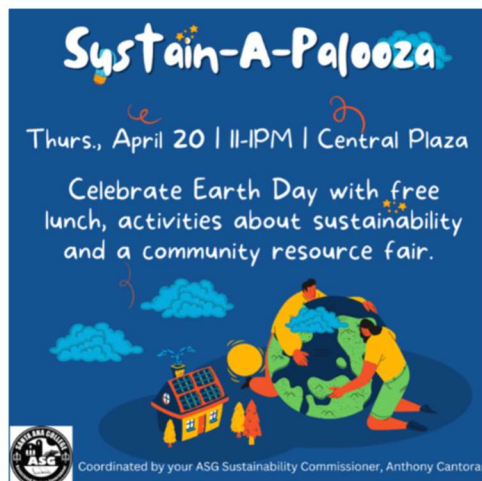
The event was an incredible success and included a Resource Fair, with 15 different tables that came out from the college, district, and the community to host activities, games, and educate students on different aspects of sustainability and the environment. Along with the Sustainable RSCCD Committee, the College President Dr. Nery and Chancellor Martinez both came to give opening remarks during the

Keynote Presentation, followed by City of Santa Ana Councilmember and SAC Alum David Penalzoza. The event featured amazing keynote presentations from Professor Shelley Moore, one the foremost experts in plastics pollution research, followed by Captain Charlie Moore, the world-renowned oceanographer who discovered the Great Pacific Garbage Patch. Students who attended received free pizza and were entered into a prize drawing.





At the 2023 Sustain-A-Palooza held on Thursday, April 20 in the Santa Ana College (SAC) Central Mall, 108 students participated as well as 13 local environmentally conscious companies, community members and nonprofit organizations along with faculty and staff from the college and District Operations. It was a successful event where students engaged with participants to learn about local environmental justice efforts and ways to get involved in their community. SAC Geology and Earth Sciences, Sustainable RSCCD Committee, Excess Telecom, SAC School of Continuing Education, OCHCA Environmental Health, Fridays for Future Orange County, Reform & Sustain, Citizens Climate Lobby, Climate Action Campaign, OC Environmental Justice, SAC Environmental Club, and Fullerton Ford had tables at the event. Fullerton Ford brought out a new Ford F-150 Lightning electric truck and discussed its positive environmental impact, particularly decreased carbon emissions. To keep with the purpose of the event, delicious power bowls were served from a local and sustainable restaurant called Green Tomato Grill. The restaurant has a sustainability program that includes low waste culinary practices, recycling, organic cleaning supplies, biodegradable sugar fiber paper goods, and corn plastic cups. It works with local produce providers to bring in as much organic produce as possible and its chefs personally source their beef and poultry from the southwest region. Participants appreciated being invited and look forward to building upon their relationships with students, the College and community at future events.



GOAL 2: CURRICULUM DEVELOPMENT

Goal Description

Facilitate the inclusion of environmental sustainability and social responsibility into existing curriculum and develop new curricula and career-oriented certificate and training courses with an emphasis on sustainability.

ACHIEVEMENTS

A. Utilize Different Pathways to Integrate Sustainability in the Curriculum

Santiago Canyon College

The Curriculum Office has a fully online catalog available and has not mass printed any catalogs since 2020. In addition, all Curriculum & Instruction meeting agendas are available online for review. Last year, the Water Utility Science department changed their department title to Water and Wastewater Technology to better define its courses and programs and align with the state's course number identifications.

Santa Ana College

Efforts to include environmental sustainability and social responsibility into existing curriculum have been on-going within Earth Sciences, Geology, Environmental Science and some Biology courses. Specifically, within Earth Science 110 and Geology 140/Environmental Science 140 case studies have been added to address issues such as water conservation and water recycling (highlighting the work at the Orange County Groundwater Replenishment System), desertification and land conservation, impact of smog checks and green technology on air pollution in southern California and responsible recycling of electronics to support need for depleting mineral resources. Biology and Earth Science/Geology faculty are working to create a cross-listed course Introduction to Environmental Science. This course is needed for the creation of the Associate for Transfer Degree in Environmental Science, which will be presented for Curriculum and Instruction approval in Fall 2023.

New curricula within Automotive Technology is geared towards sustainable technology. In AUTO-260 – Introduction to Hybrid/Electric Vehicles, students will focus mostly on the technical aspects of hybrid/electric vehicles, however, a course objective has been included where students will be required to explain the need for zero emission vehicles for environmental purposes.

Within the last year, the Alternative Powertrain Technology certificate, created in 2022, has been modified to include the AUTO260 course. This certificate was designed to address a job market need created by various vehicle manufacturers and municipalities which require specific training for non-gasoline powered vehicles (alternative powertrains).

Within the Fire Technology Department, updates to curriculum were made to include current wildland firefighting methods in Minimal Impact Suppression Tactics (MIST). MIST tactics extinguish and mop-up wildfires with the least impact to the landscape and environment.

During SAC's accreditation visit in March 2022, the visiting team was impressed with the campus-wide commitment to sustainability and creating a culture of sustainable practices as evidenced, in part by, inclusion of environmental sustainability into new and existing curriculum.

B. Enhance Student Distance Learning

Both colleges have resumed in-person classes while continuing to offer remote learning classes.

Santiago Canyon College

SCC has incorporated multiple new course styles during the Pandemic, which are listed below

- Online (O): Online with no scheduled meeting
- Fully online live (OL): Live Zoom meetings
- Virtual hybrid (VH): Live Zoom meetings, Online with no scheduled meeting
- Hybrid (H): Classes meet in-person, Online with no scheduled meeting
- On-campus with virtual (CV): Classes meet in-person, Live Zoom meetings
- Hyflex (HF): Classes meet in-person, Live Zoom meetings
- On-campus (C): Classes meet in-person

This wide variety of class styles is continuing to serve Santiago Canyon students even beyond the Pandemic. More online class formats have the added bonus of reducing emissions from transportation, as students and instructors alike can make it to class remotely.

Santa Ana College

Santa Ana College has a dedicated Distance Education department to best oversee their online courses. SAC offers all the same course formats as Santiago Canyon College, which are listed above.

Santa Ana College encourages an Online Teaching Certificate for all faculty, which is available through Canvas. There is also a Remote Instruction Certificate, which is a series of self-paced online workshops that focuses on the technology available to help them succeed as online instructors.

For students, there is an Online Degree Pathway, which allows students to get a 2-year degree completely online. This eliminates any potential emissions from transportation and is particularly helpful for students who are working full-time jobs or internships while getting their degree.

GOAL 3: ENERGY

Goal Description

Perform energy use benchmarking studies at both campuses and the District Office to better understand District energy use as compared to similar facilities and community college peers. Based on the results, establish annual energy use and demand reduction goals and plan appropriate energy efficiency, demand reduction, or clean self-generation measures to achieve goals.

ACHIEVEMENTS

A. Energy Consumption Goal (Electricity and Gas)

The District performed an energy benchmark study in 2012-13 using the Chancellor's Office Energy Calculator. This became the baseline year for establishing the annual energy use reduction goals and targeting an overall annual reduction of 5%.

- The District has met the original annual goal stated in the Sustainability Plan 2015 to reduce energy consumption by 5% from baseline year (2012-13) on average through 2020-21. Years 2021-22 and 2022-23 saw a slight increase in energy usage following the pandemic; however, the District achieved an overall reduction of approximately 40,000 therms (gas) and 3.8 million kWh (electric) over the last 5 years when compared to the baseline year, equal to an average reduction of 12% in gas and 22% in electricity. Santa Ana College observed the largest increase in gas usage following the opening of the Science Center in July 2021, which accounted for over 120,941 therms, or 28% of the 436,983 therms consumed by that campus during the 2021-22 and 2022-23 years. In addition, several commissioning and operational tests were undertaken during the course of the last several years, which contributed to a significant increase in gas usage.

Electricity

Districtwide there is a steady decrease in electricity usage, with 2020-21 being the largest decrease of approximately 32% compared to the baseline year. This is likely in part due to the pandemic and less use across facilities. Usage returned to pre-pandemic trends following the return to in-person activities in 2021-22 and 2022-23; however the values remained 19% and 14% below the 2012-13 baseline.

Gas

Districtwide there has been a decrease in gas usage ranging between a decrease of 10% to 23% each year through 2021-22 when compared to the baseline year 2012-13. However, gas usage increased in 2021-22 and exceeded the baseline in 2022-23 following the return to in-person activities following the pandemic, the opening of the Science Center in July 2021, and commissioning and operational testing.

B. Conduct Comprehensive Facility Energy Audits

- The District prepared a report of energy and gas consumption for all sites, using fiscal year 2012-2013 as a baseline year of measurement can be seen in Exhibit C (Electricity, Gas, and Water Consumption History FY 2012-2023).
- The District conducts an annual review of electricity and gas use from a detailed billing summary generated by Southern California Edison (SCE) and Southern California Gas Company (SoCalGas).
- District compares the summary to the actual billing statements.
- District reviews the trends with the campus to discuss use and changes.

C. Summary of Current Accounts

Electricity Table of Summary Accounts

Site	Number of Accounts, and Number of Meters	Service Period
District Operations Center	1 account; 1 meter	Mid-month
Santa Ana College	2 accounts; 2 meters	Mid-month
Santiago Canyon College	5 accounts; 5 meters	Mid-month
Orange Education Center	2 accounts; 2 meters	Mid-month
Orange County Sheriff's Regional Training Academy	1 account; 1 meter	Mid-month
Digital Media Center	1 account; 1 meter	Beginning of the month
Centennial Education Center	1 account; 1 meter	Mid-month

The electricity consumption summary 2012 to 2023 (Exhibit C) includes 13 active accounts, as well as 1 de-activated account that is no longer in use since September of 2017 (SAC site).

Gas Table of Summary Accounts

Site	Number of Accounts, And number of meters	Service Period
District Operations Center	1 account; 1 meter	Beginning of the month
Santa Ana College	2 accounts; 2 meters	Beginning of the month
Santiago Canyon College	2 accounts; 2 meters	End of the month
Orange County Sheriff's Regional Training Academy	1 account; 1 meter	Beginning of the month
Digital Media Center	1 account; 1 meter	End of the month
Centennial Education Center	1 account; 1 meter	Beginning of the month

The gas consumption summary 2012 to 2023 (Exhibit C) includes 8 active accounts, as well as 2 de-activated accounts that are no longer in use: OEC site since March of 2018 and one account from SAC since July 2022.

D. Methodology for Maintaining and Monitoring Electricity and Gas Consumption

The District tracks consumption/use history from 2010 to current (2022) for each site and accounts for both electricity and gas. The District continues to collect the data consumption history to generate trending reports and summarize the overall total use of each account.

The District obtains copies of the electricity and gas billing statements for comparisons and verification of the reports. SoCalGas provides up to 25 months of past billing statement online. SCE billing statements were not available online. Therefore, copies of the billing statements were obtained from the Accounts Payable Department, and these were only available from 2015 to current.

E. Electricity and Gas Consumption Trends (See Exhibit C - Electricity, Gas, and Water Consumption History FY 2012-2023)

The District has collected utility sites as noted in attached Exhibit C and can now be evaluated for trends on a monthly, quarterly, annually and seasonal basis.

Electricity

Typically, for all the sites, the electricity consumption begins to increase in June and gradually increases through October. Summer months demand more kilowatts due to an increase use in cooling for buildings.

Gas

Gas use typically begins to increase around September through March. These winter months will demand more therms for the use of the heating system.

F. Recommendations to Improve Consumption Management

To improve and enhance the management of utility consumption at sites, the District and the Colleges continue to review utility bills on a regular basis (i.e., monthly, quarterly, annually) to monitor consumption and any anomalies in billing.

- Once a billing statement has been received by the Accounts Payable Department at the District office, it is very important that the department reaches out to the campus and inquires if there was a reason for an increase of the service.
- A note to the actual billing statement shall be annotated for future reference.
- The District summarizes the usage history on an annual basis and reviews this with the colleges.

G. Energy Efficiency Improvements

Santa Ana College

Replaced the roof systems at Building F, J, and I using the District's standard roofing system. The installation included a final application of a highly reflective coating designed to enhance the performance of the new roofing system and meet new Title 24 energy efficiency standards.

HVAC equipment at Buildings G, H, L, T, W, & X are at the end of their useful life and are being replaced with more energy-efficient roof-top HVAC equipment using Scheduled Maintenance funding. Although the majority of the equipment will be replaced with new equipment, some equipment will be retrofitted with efficient components and new programming upgrades will be made to improve system efficiency. The project will further extend the life usage of the air handler units, improve ventilation and indoor comfort, and will reduce energy costs. This project is currently in design and is expected to be completed in 2024. Buildings L, X, and T will also include a roofing system with highly reflective coating designed to enhance the performance of the new roofing system and meet new Title 24 energy efficiency standards.

Santiago Canyon College

HVAC equipment at Buildings A and B need a retrofit of multiple HVAC components to improve operations and reduce energy usage. The project includes retrofitting and/or replacing compressors, converting R-22 refrigerant to RS-44B refrigerant, replacing supply fan motors, replacing filter racks, calibration/cleaning of all air handler components, and programming upgrades to the building automation system to improve system efficiency. The project will further extend the life usage of the air handler units, improve ventilation and indoor comfort, and will reduce energy costs.

Replaced the roof systems at Building D, E, L, SC, H, and G using the District's standard roofing system. The installation included a final application of a highly reflective coating designed to enhance the performance of the new roofing system and meet new Title 24 energy efficiency standards.

HVAC equipment at Building D is at the end of useful life and are being replaced with more energy-efficient roof-top HVAC equipment using Scheduled Maintenance funding. Staff will have better control of HVAC operations through implementation of building automation controls. The project will improve indoor air quality by improving ventilation and help reduce operational energy costs. This project is currently in design and is expected to be completed in 2024.

District Office

The District upgraded the server room air conditioning equipment. The equipment was at the end of its useful life and required a full replacement. The District installed new higher efficiency equipment with improved building automation controls to ensure the reliability of cooling operations and efficiently stage compressors up or down based on the heating load.

The heating hot water valves will be replaced with new valves due to failing equipment. The project will replace all heating hot water valves and isolation valves, reducing the building heating demand and reducing energy costs.

GOAL 4: FACILITIES DESIGN & OPERATION

Goal Description

Design and construct all major capital projects and renovations to meet LEED Silver “equivalent” standard and operate facilities to meet solid waste, energy, and water use reduction goals. Employ sustainable landscaping practices.

ACHIEVEMENTS

A. Facilities Design

Districtwide

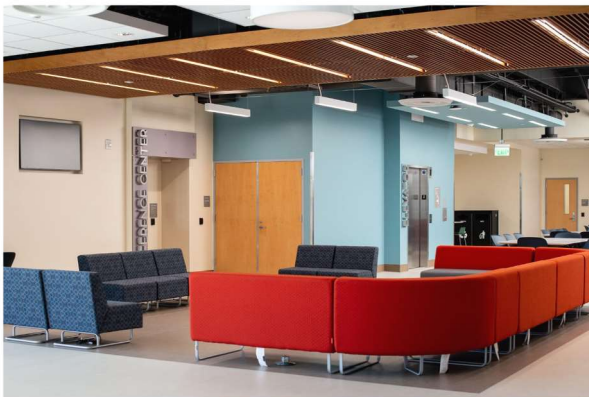
All new building and major landscape projects will continue to be specified with a smart controller system tied to the districtwide Command Center to better manage irrigation water usage.

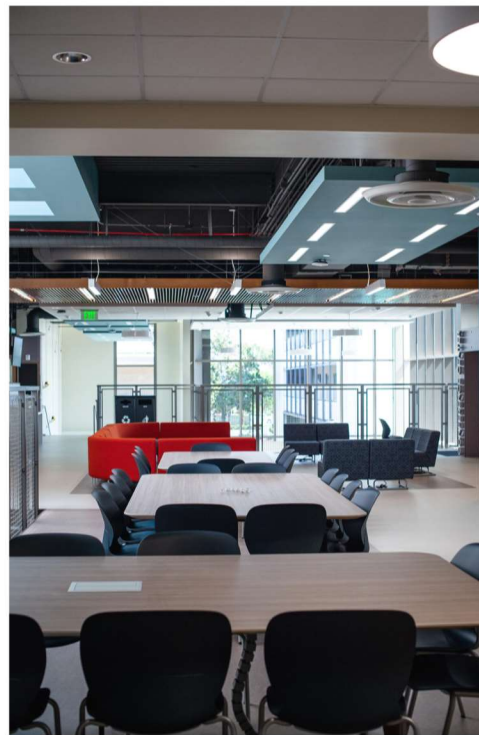
Improved operations by adjusting the building automation systems, including setpoint adjustments increasing systems setpoints higher for summer cooling and lower for winter heating reduce energy consumption associated with cooling and heating operations. The District and colleges continue to fine tune setpoint and HVAC scheduling to reduce energy waste.

Santa Ana College

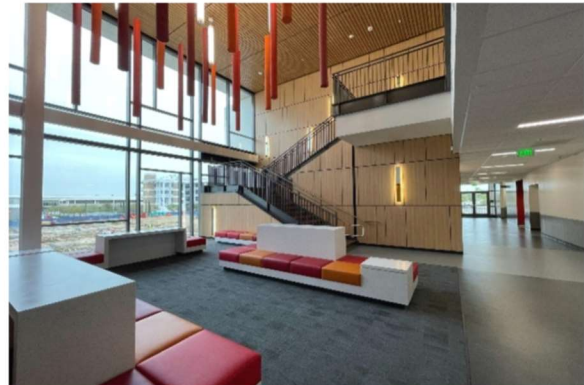
The Johnson Student Center building was designed to meet Leadership in Energy and Environmental Design (LEED) Silver equivalence by the United States Green Building Council. The project completed construction, and its grand opening event was held on July 27, 2021. Some of the efficient elements include water-efficient landscaping and plumbing fixtures, highly efficient HVAC units, daylight harvesting, controlled electrical outlets, and separate building metering. The approximately \$60 million project was funded almost entirely by Measure Q.



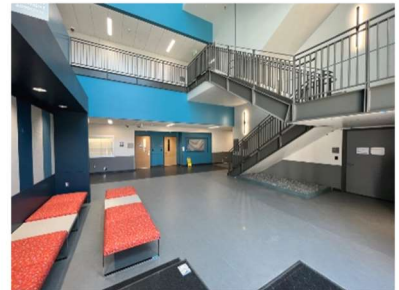




The Science Center building was designed to meet Leadership in Energy and Environmental Design (LEED) Silver equivalence by the United States Green Building Council. The project completed construction. The grand opening event was held on January 26, 2022, and the building was open for classes at the start of the Spring 2022 Semester. Some of the efficient elements include water-efficient landscaping and plumbing fixtures, highly efficient HVAC units, daylight harvesting, controlled electrical outlets, separate building metering. The building is 28% more energy efficient than required by code.



The Health Sciences building is designed to meet Leadership in Energy and Environmental Design (LEED) Silver equivalence by United States Green Building Council. The project began construction in March 2021 and will be completed Fall 2023. Some of the efficient elements include water-efficient landscaping and plumbing fixtures, highly efficient HVAC units, daylight harvesting, controlled electrical outlets, and separate building metering.



GOAL 5: SOLID WASTE MANAGEMENT

Goal Description

Continue to implement the landfill diversion program, expand it to include all sectors of recycling and waste reduction to landfills, and strive to meet the statewide landfill-recycling goal of 75% by 2020.

ACHIEVEMENTS

Districtwide

- WARE Disposal continues to be the waste hauler for the District, providing monthly and annual diversion reports so that the District can monitor the amount of waste generated for trash, recycling, and organics.
- The District publishes an annual update to the Hydration Stations map for both campuses, encouraging the campus community to bring reusable water bottles to refill on campus and reduce single-use plastic waste (see Exhibits A and B).

Santa Ana College

- Campus-wide Drinking Fountains: This project includes removing and replacing existing non-compliant drinking fountains at the college with compliant drinking fountains and bottle fillers. All 28 planned fountains were completed August 2023. This will reduce the need for single-use plastic water bottles, which is a resource-intensive production process and diverts waste from the landfill.

GOAL 6: SUSTAINABLE PROCUREMENT

Goal Description

Implement efforts to source campus food, materials, supplies, information technology, equipment, and resources from organizations committed to social responsibility and environmental sustainability.

A. Green Purchasing

Districtwide

- Purchased less toxic cleaning solutions.
- LED lighting has reduced hazardous waste and the need to replace lamps.
- Continue to ensure paper products specified contain more recycled product.
- Continue to replace equipment with more energy efficient equipment such as copy machines, refrigerators, computers, etc.
- Paper used throughout the District contains at least 30% recycled content.
- Paper towels are Green Seal GS-1 Certified, 100% recycled content, 65% post-consumer recycled content
- The District Purchasing Services Department encourages all departments to consider sustainable goods when feasible. Purchasing Services share brochures and fliers from District vendors advertising sustainable products for consideration. The District is ordering more sustainable products from Home Depot, with details to come following the 22-23 Fiscal Year. Purchasing Services works closely with the Publications department when purchasing printing supplies and paper. All used printer cartridges are sent to a recycling program which gives back to the District in points for purchasing printers and cartridges.

Below are examples of some of the recycled products purchased Districtwide:



GOAL 7: TRANSPORTATION

Goal Description

Reduce the reliance of students, faculty, and staff on single occupancy vehicle commutes by 5 percent within the next five years and encourage the use of low and zero emissions vehicles.

ACHIEVEMENTS

A. Improve Campus Fleet & Travel

Electric and Hybrid Vehicles

District Operations Center

- One Toyota Prius (2013)

Santa Ana College

- One Honda Hybrid (2007)
- One Toyota Prius (2013)
- Two Toyota Prius (2016)
- One Ford Hybrid Interceptor (2020)
- Two Hyundai EVs (2021)
- Two Ford Escape Hybrids (2022)

Santiago Canyon College

- One Toyota Prius (2014)
- One Toyota Prius (2017)



B. Encourage Low and Zero Emissions Vehicles for Commuters

Districtwide

- The District publishes an annual update to the Bicycle Rack locations map for both campuses, encouraging the campus community to ride their bikes to campus and reduce single-occupancy, emissions-producing vehicles on the roads (see Exhibits A and B).

Santa Ana College

- Ongoing assessment for future electric vehicle charging facilities.
- All new construction shall comply with California Green Building Code's Clean Air/Vanpool/EV requirements.
- As part of the Parking Lot 11 Restoration project, installed two dual and one single electric charging stations able to provide charging for five cars at one time.
- At the completion of the new Health Sciences building, there will be three electric charging stations servicing five cars at one time, one of which is accessible (Parking Lot 6).
- SAC Campus Entrance Improvements: The Campus Entrance Improvement is scheduled to start in fall 2024 to improve the campus front entry and renovate hardscape and softscape as well as increase the number of parking stalls, drop-off areas, and ride-sharing areas. The objectives include: reduce traffic congestion, improve pedestrian and vehicle circulation, remove accessibility barriers, increase ride-share drop-offs, and use native and drought resistant landscaping and irrigation.

GOAL 8: WATER MANAGEMENT

Goal Description

Perform water use benchmarking studies at both campuses and the District Office to better understand usage as compared to similar facilities and community college peers. Based on the results, establish annual water use reduction goals and plan appropriate measures to achieve goals.

ACHIEVEMENTS

A. Establish Water Conservation Goals

- 2012-13 was used as a baseline year for comparison and the District established a 5% annual water reduction use.
- The District has met the original annual goal stated in the Sustainability Plan 2015 to reduce water consumption by 5% from baseline year (2012-13) on average through 2019-20. Years 2020-21 and 2021-22 saw a slight increase in water usage following the pandemic; however, the District achieved an overall reduction of approximately 24 million gallons of water over the last 5 years when compared to the baseline year, equal to an average reduction of 30%. Water usage reached its lowest levels in 2022-23 with a 38% reduction below the baseline.

B. Conduct a Comprehensive Facility Water Audits

- Completed benchmark studies for all District sites.
- Established the fiscal year 2012-13 as the baseline year for water use consumption analysis, consistent with the electricity and gas baseline year (See Exhibit C).
- The District conducts an annual review of water utility bills and reviews the trends with the campus to discuss use and changes.

C. Summary of Accounts

Table of Summary Accounts:

Site	Water Utility Agency	Number of Accounts, and number of meters	2 Month Service Period *exception; monthly
District Operations Center	City of Santa Ana	1 account; 1 meter	Mid-month
Santa Ana College	City of Santa Ana	10 accounts; 10 meters	Mid-month (4) End of Month (6)
Santiago Canyon College	City of Orange	3 accounts; 5 meters	End of Month
Orange County Education Center	City of Orange	2 accounts; 3 meters	End of Month
Orange County Sheriff's Regional Training Academy	Irvine Ranch Water District	5 accounts; 5 meters	Mid-month *
Digital Media Center	City of Santa Ana	2 accounts; 2 meters	End of Month

Centennial Education Center	City of Santa Ana	2 accounts; 2 meters	Beginning of the Month
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- The water consumption summary 2012 to 2023 (Exhibit C) includes 25 active accounts.
- The District’s sites are within three water utility agencies: City of Santa Ana, City of Orange, and Irvine Water Ranch Water District.
- The billing cycles are either at the beginning of the month, mid-month, or at the end of the month, and services are being billed either monthly or bi-monthly.

D. Water Summary Details

City of Santa Ana

- Services to District Operations Center, Santa Ana College, Centennial Education Center, and Digital Media Center
- Bills are available online up to 6 months.
- Bills from 2015 to 2020 were downloaded. Bills from 2021 to current were received from accounting.

Irvine Ranch Water District

- Services to Orange County Regional Sheriff’s Regional Training Academy
- Bills from 2015 to current were downloaded. Bills from 2021 to current were received from accounting.

City of Orange

- Services to Santiago Canyon College and Orange Education Center
- Bills are available online for 24 months.
- Bills from 2015 to 2020 were downloaded. Bills from 2021 to current were received from accounting.

Note, all three water utility agencies do not offer the capability to export the water usage history, and therefore all collected data is tracked manually by the District.

E. Maintaining a Master File

Water utility data is entered from the billing statements which includes the following:

- Date of Services; beginning date and end date
- Number of days of services
- Meter Read Date; beginning date and end date
- Total CCF (this is the difference between the two meter read dates)
- Total Gallons (the total CCF multiply by 748)
- Daily Average by Gallons
- Charges; various from water agencies, but all the rates and charges were entered.
- Billing Date (the date the billing statement was issued)

F. Water Trends

For each site it appears that spikes in water usage occur seasonally and when there are irrigation leaks and or other types of plumbing line breaks and repairs occur.

G. Recommendations to Improve Reporting of the Usage History

Open communication with the campus and District is very important. In order to understand the usage and consumption patterns, all respective parties from the campuses to the District, must communicate with one another to proactively monitor utilities.

- Campus or other building operators should notify the District when a leak occurs and note the duration.
- The District office can inform the Colleges of spikes in the water billing statement, which may lead to investigation of unknown irrigation leaks.
- District logs and tracks events for future reference and provides water use history data.

H. Implement Water Conservation Strategies

Several water conservation measures have been implemented throughout the District and are included in the Facility Design Standard Guidelines.

Santa Ana College

- Completed Phase 2 of the Irrigation Controller Upgrades at Santa Ana College and installed seven (7) new controllers. With these upgrades, Santa Ana College has a completely new smart irrigation controller system campus wide to help reduce water consumption.

I. Reduce Storm Water, Sewer Discharges, and Water Pollution

Santa Ana College

- New Science Center and Health Sciences buildings will utilize a shared retention basin to manage storm water runoff.
- New Johnson Center is tied into the existing campus retention basin to manage storm water runoff.

Santiago Canyon College

- Completed new erosion control measures to prevent hillside runoff around the Campus Safety portable offices. The work included grading, removing vegetation, irrigation, landscaping, chain link fencing, storm drain adjustments, metal railing and hardscape. The improvements will prevent rainwater runoff and erosion into the parking lot, and near the backside of the portables along the adjacent hillside. New landscaping and irrigation were installed enhancing and stabilizing the area.
- As part of the campus entrance improvements currently in construction, a bioretention basin is being constructed to help catch water runoff from higher elevations, such as roadways, parking lots and sidewalks. As the runoff flows into the retention basin through inlets and catch basins, debris, sediments, and pollutants are filtered and separated from the water to help reduce further water and ground pollution downstream.

J. Adopt Sustainable Landscaping Practices

Districtwide

- The District adheres to landscape material design standards updated in 2020 which includes California native plants, drought resistant, and water-wise landscaping practices.
- All new buildings incorporate the Facility Designs Standards which require low water use plants and irrigation systems with controllers to reduce and monitor water use.
- All new construction will comply with California Green Building Code.

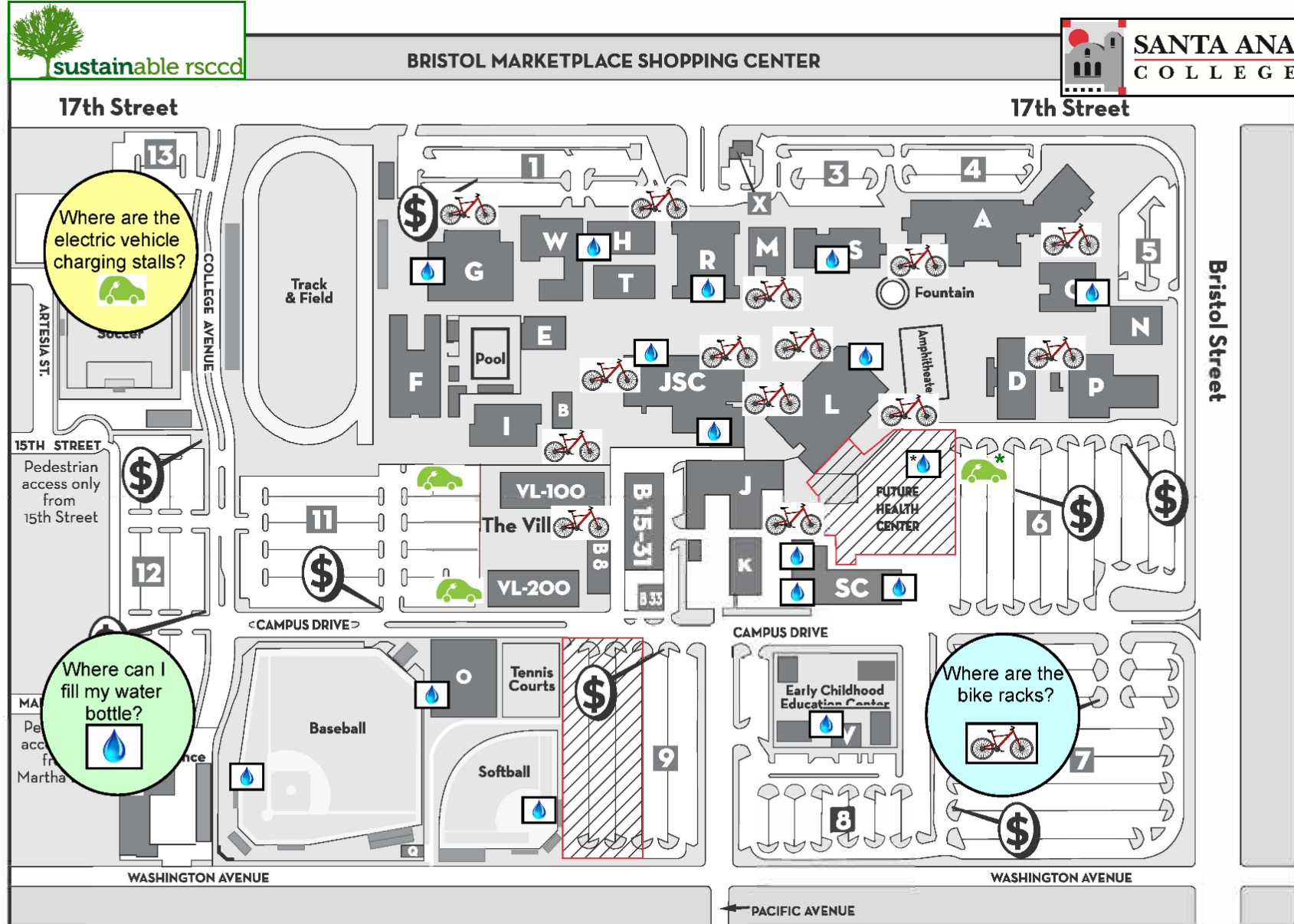
NONDISCRIMINATION POLICY

The Rancho Santiago Community College District is committed to equal opportunity in educational programs, employment, and all access to institutional programs and activities.

The District, and each individual who represents the District, shall provide access to its services, classes, and programs without regard to national origin, religion, age, gender, gender identity, gender expression, race or ethnicity, color, medical condition, genetic information, ancestry, sexual orientation, marital status, physical or mental disability, pregnancy, or military and veteran status, or because he or she is perceived to have one or more of the foregoing characteristics, or based on association with a person or group with one or more of these actual or perceived characteristics.

The Chancellor shall establish administrative procedures that ensure all members of the college community can present complaints regarding alleged violations of this policy and have their complaints heard in accordance with the Title 5 regulations and those of other agencies that administer state and federal laws regarding nondiscrimination.

No District funds shall ever be used for membership, or for any participation involving financial payment or contribution on behalf of the District or any individual employed by or associated with it, to any private organization whose membership practices are discriminatory on the basis of national origin, religion, age, gender, gender identity, gender expression, race, color, medical condition, genetic information, ancestry, sexual orientation, marital status, physical or mental disability, pregnancy, or military and veteran status, or because he or she is perceived to have one or more of the foregoing characteristics, or because of his or her association with a person or group with one or more of these actual or perceived characteristics. Inquiries regarding compliance and/or grievance procedures may be directed to District's Title IX Officer and/or Section 504/ADA Coordinator. RSCCD Title IX Officer and Section 504/ADA Coordinator: Jean Estevez, 2323 N. Broadway, Santa Ana, CA 92706, 714-480-7404.





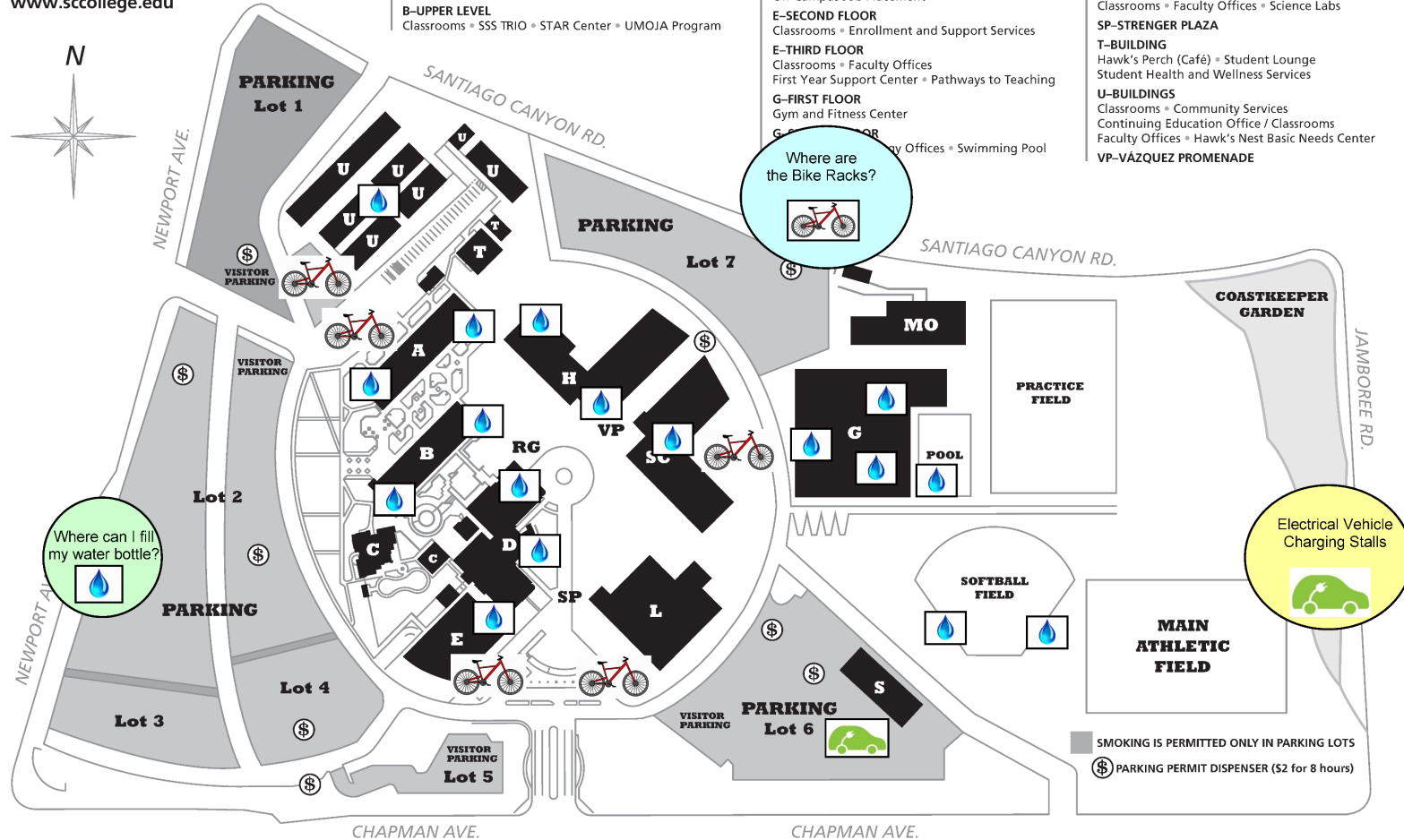
Santiago Canyon College

8045 East Chapman Avenue
Orange, CA 92869
714-628-4900
www.sccollege.edu

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SCC Outreach
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- B-UPPER LEVEL**
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- C-BUILDING**
Child Development Center
- D-FIRST FLOOR**
Career Services • Classrooms • Counseling
Faculty Offices • Transfer Success Center
- D-SECOND FLOOR**
Math Success Center • Faculty Offices • Classrooms
- E-FIRST FLOOR**
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Financial Aid • EOPS • Disabled Students Program
Graduation Office • Photo ID
On-Campus Job Placement
- E-SECOND FLOOR**
Classrooms • Enrollment and Support Services
- E-THIRD FLOOR**
Classrooms • Faculty Offices
First Year Support Center • Pathways to Teaching
- G-FIRST FLOOR**
Gym and Fitness Center
- G-SECOND FLOOR**
Gym • Faculty Offices • Swimming Pool

- H-HUMANITIES**
Classrooms • Faculty Offices • Language Lab
Writing Center
- L-LIBRARY**
Instructional Design Center
- MO-MAINTENANCE & OPERATIONS**
District Publications • District Warehouse
- RG-ROSE GARDEN**
- S-SECURITY & CAMPUS SAFETY**
- SC-SCIENCE CENTER**
Classrooms • Faculty Offices • Science Labs
- SP-STRENGER PLAZA**
- T-BUILDING**
Hawk's Perch (Café) • Student Lounge
Student Health and Wellness Services
- U-BUILDINGS**
Classrooms • Community Services
Continuing Education Office / Classrooms
Faculty Offices • Hawk's Nest Basic Needs Center
- VP-VÁZQUEZ PROMENADE**



SUMMARY OF UTILITY USE PER SITE BY FISCAL YEAR

Water Use by Gallons per Site by Fiscal Year

Sites	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
District Operations Center	1,997,160	1,875,984	1,813,900	1,438,404	1,674,024	2,093,652	1,543,124	1,460,844	1,198,296	1,688,984	1,819,136
Santa Ana College	35,758,140	36,499,408	31,588,788	27,594,468	27,079,096	35,137,300	25,981,780	24,680,260	21,365,124	24,404,248	24,486,528
Centennial Education Center	1,329,944	1,442,892	1,376,320	1,415,964	1,281,324	1,207,272	1,258,136	969,408	146,608	454,036	750,992
Digital Media Center	417,384	401,676	565,488	332,112	257,312	395,692	466,004	412,896	715,088	363,528	276,760
Orange County Sheriff's Regional Training Academy	1,828,860	2,047,276	2,126,564	1,415,216	1,244,672	845,988	1,295,536	2,427,260	8,378,348	4,862,748	831,776
Santiago Canyon College	37,986,432	41,012,840	32,291,908	20,534,096	22,499,092	29,388,172	26,468,728	26,122,404	28,103,108	28,334,988	21,600,744
Orange Education Center	1,414,468	742,016	878,900	373,252	1,040,468	963,424	130,900	5,984	0	0	0
Districtwide	80,732,388	84,022,092	70,641,868	53,103,512	55,075,988	70,031,500	57,144,208	56,079,056	59,906,572	60,108,532	49,765,936

Natural Gas Use by Therms Per Site by Fiscal Year

Sites	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
District Operations Center	7,303	8,360	5,331	7,347	11,016	14,738	15,238	11,668	9,300	7,684	15,498
Santa Ana College	141,777	125,931	104,654	111,837	122,283	138,617	141,208	134,050	146,209	181,483	255,500
Centennial Education Center	2,939	2,134	1,790	2,029	2,055	1,702	2,165	2,172	2,209	2,658	3,027
Digital Media Center	3,602	3,489	3,308	3,420	6,389	3,127	311	1,795	510	1	65
Orange County Sheriff's Regional Training Academy	7,037	6,195	3,004	4,377	4,210	6,831	6,292	6,480	4,864	4,825	8,977
Santiago Canyon College	157,181	142,773	105,172	114,745	112,475	101,996	117,376	98,163	65,132	98,999	107,910
Orange Education Center	10,426	6,886	210	1,138	187	34	0	0	0	0	0
Districtwide	330,265	295,768	223,469	244,893	258,615	267,045	282,590	254,328	228,224	295,650	390,977

Electricity Use by Kilowatt Hours Per Site by Fiscal Year

Sites	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
District Operations Center	1,222,424	1,379,409	1,125,280	847,325	865,735	883,893	856,975	825,599	737,901	778,176	730,783
Santa Ana College	8,669,762	8,722,061	8,140,174	8,166,950	8,244,453	8,460,769	7,333,808	7,007,845	6,652,093	7,920,443	8,756,570
Centennial Education Center	680,089	659,451	644,109	605,279	622,904	619,319	513,996	325,125	490,867	490,867	529,329
Digital Media Center	492,034	508,408	528,452	529,502	529,429	428,529	400,392	392,792	364,284	406,769	410,319
Orange County Sheriff's Regional Training Academy	823,648	889,446	936,498	876,507	785,915	725,676	703,366	695,604	673,285	672,563	678,067
Santiago Canyon College	4,991,821	4,895,855	5,520,082	5,072,556	5,153,590	4,747,751	4,185,125	3,837,760	3,241,879	3,882,682	3,831,273
Orange Education Center	780,722	514,535	444,519	427,247	351,542	235,468	245,102	112,303	51,693	60,136	153,955
Districtwide	17,660,500	17,569,165	17,339,114	16,544,619	16,535,943	16,104,990	14,344,087	13,385,899	12,046,260	14,211,636	15,090,296

Note: 2012-13 Baseline Year established per Sustainability Plan

*Updated based on available information as of 8/15/2023 (subject to change)

AVERAGE REDUCTIONS: FISCAL YEAR TO BASELINE YEAR

Water Use Change by Fiscal Year Compared to Baseline Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average
District Operations Center	-454,036	-536,316	-798,864	-308,176	-178,024	-455,083
Santa Ana College	-9,776,360	-11,077,880	-14,393,016	-11,353,892	-11,271,612	-11,574,552
Centennial Education Center	-71,808	-360,536	-1,183,336	-875,908	-578,952	-614,108
Digital Media Center	48,620	-4,488	297,704	-53,856	-140,624	29,471
Orange County Sheriff's Regional Training Academy	-533,324	598,400	6,549,488	3,033,888	-997,084	1,730,274
Santiago Canyon College	-11,517,704	-11,864,028	-9,883,324	-9,651,444	-16,385,688	-11,860,438
Orange Education Center	-1,283,568	-1,408,484	-1,414,468	-1,414,468	-1,414,468	-1,387,091
Districtwide	-23,588,180	-24,653,332	-20,825,816	-20,623,856	-30,966,452	-24,131,527

Natural Gas Use Change by Fiscal Year Compared to Baseline Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average
District Operations Center	7,935	4,365	1,997	381	8,195	4,575
Santa Ana College	-569	-7,727	4,432	39,706	113,723	29,913
Centennial Education Center	-774	-767	-730	-281	88	-493
Digital Media Center	-3,291	-1,807	-3,092	-3,601	-3,537	-3,066
Orange County Sheriff's Regional Training Academy	-745	-557	-2,173	-2,212	1,940	-749
Santiago Canyon College	-39,805	-59,018	-92,049	-58,182	-49,271	-59,665
Orange Education Center	-10,426	-10,426	-10,426	-10,426	-10,426	-10,426
Districtwide	-47,675	-75,937	-102,041	-34,615	60,712	-39,911

Electricity Use Change by Fiscal Year Compared to Baseline Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average
District Operations Center	-365,449	-396,825	-484,523	-444,248	-491,641	-436,537
Santa Ana College	-1,335,954	-1,661,917	-2,017,669	-749,319	86,808	-1,135,610
Centennial Education Center	-60,770	-166,093	-354,964	-189,222	-150,760	-184,362
Digital Media Center	-91,642	-99,242	-127,750	-85,265	-81,715	-97,123
Orange County Sheriff's Regional Training Academy	-120,282	-128,044	-150,363	-151,085	-145,581	-139,071
Santiago Canyon College	-806,696	-1,154,061	-1,749,942	-1,109,139	-1,160,548	-1,196,077
Orange Education Center	-535,620	-668,419	-729,029	-720,586	-626,767	-656,084
Districtwide	-3,316,413	-4,274,601	-5,614,240	-3,448,864	-2,570,204	-3,844,864

PERCENTAGE CHANGE: FISCAL YEAR TO BASELINE YEAR

Water Use Percent Change by Fiscal Year Compared to Baseline Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average %
District Operations Center	-22.73%	-26.85%	-40.00%	-15.43%	-8.91%	-22.79%
Santa Ana College	-27.34%	-30.98%	-40.25%	-31.75%	-31.52%	-32.37%
Centennial Education Center	-5.40%	-27.11%	-88.98%	-65.86%	-43.53%	-46.18%
Digital Media Center	11.65%	-1.08%	71.33%	-12.90%	-33.69%	7.06%
Orange County Sheriff's Regional Training Academy	-29.16%	32.72%	358.12%	165.89%	-54.52%	94.61%
Santiago Canyon College	-30.32%	-31.23%	-26.02%	-25.41%	-43.14%	-31.22%
Orange Education Center	-90.75%	-99.58%	-100.00%	-100.00%	-100.00%	-98.06%
Districtwide	-29.22%	-30.54%	-25.80%	-25.55%	-38.36%	-29.89%

Natural Gas Use Percent Change by Fiscal Year Compared to Baseline Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average %
District Operations Center	108.65%	59.77%	27.34%	5.22%	112.22%	62.64%
Santa Ana College	-0.40%	-5.45%	3.13%	28.01%	80.21%	21.10%
Centennial Education Center	-26.34%	-26.10%	-24.84%	-9.56%	2.99%	-16.77%
Digital Media Center	-91.37%	-50.17%	-85.84%	-99.97%	-98.20%	-85.11%
Orange County Sheriff's Regional Training Academy	-10.59%	-7.92%	-30.88%	-31.43%	27.57%	-10.65%
Santiago Canyon College	-25.32%	-37.55%	-58.56%	-37.02%	-31.35%	-37.96%
Orange Education Center	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%
Districtwide	-14.44%	-22.99%	-30.90%	-10.48%	18.38%	-12.08%

Electricity Use Percent Change by Fiscal Year Compared to Baseline Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average %
District Operations Center	-29.90%	-32.46%	-39.64%	-36.34%	-40.22%	-35.71%
Santa Ana College	-15.41%	-19.17%	-23.27%	-8.64%	1.00%	-13.10%
Centennial Education Center	-8.94%	-24.42%	-52.19%	-27.82%	-22.17%	-27.11%
Digital Media Center	-18.63%	-20.17%	-25.96%	-17.33%	-16.61%	-19.74%
Orange County Sheriff's Regional Training Academy	-14.60%	-15.55%	-18.26%	-18.34%	-17.68%	-16.88%
Santiago Canyon College	-16.16%	-23.12%	-35.06%	-22.22%	-23.25%	-23.96%
Orange Education Center	-68.61%	-85.62%	-93.38%	-92.30%	-80.28%	-84.04%
Districtwide	-18.78%	-24.20%	-31.79%	-19.53%	-14.55%	-21.77%

AVERAGE REDUCTIONS: YEAR TO YEAR

Water Use Change by Fiscal Year Compared to Previous Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average
District Operations Center	-550528	-82280	-262548	490688	130152	-54903
Santa Ana College	-9155520	-1301520	-3315136	3039124	82280	-2130154
Centennial Education Center	50864	-288728	-822800	307428	296956	-91256
Digital Media Center	70312	-53108	302192	-351560	-86768	-23786
Orange County Sheriff's Regional Training Academy	449548	1131724	5951088	-3515600	-4030972	-2842
Santiago Canyon College	-2919444	-346324	1980704	231880	-6734244	-1557486
Orange Education Center	-832524	-124916	-5984	0	0	-192685
Districtwide	-12887292	-1065152	3827516	201960	-10342596	-4053113

Natural Gas Use Change by Fiscal Year Compared to Previous Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average
District Operations Center	500	-3570	-2368	-1616	7814	152
Santa Ana College	2591	-7158	12159	35274	74017	23377
Centennial Education Center	463	7	37	449	369	265
Digital Media Center	-2816	1484	-1285	-509	64	-612
Orange County Sheriff's Regional Training Academy	-539	188	-1616	-39	4152	429
Santiago Canyon College	15380	-19213	-33031	33867	8911	1183
Orange Education Center	-34	0	0	0	0	-7
Districtwide	15545	-28262	-26104	67426	95327	24786

Electricity Use Change by Fiscal Year Compared to Previous Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average
District Operations Center	-26918	-31376	-87698	40275	-47393	-30622
Santa Ana College	-1126961	-325963	-355752	1268350	836127	59160
Centennial Education Center	-3585	-105323	-188871	165742	38462	-18715
Digital Media Center	-28137	-7600	-28508	42485	3550	-3642
Orange County Sheriff's Regional Training Academy	-22310	-7762	-22319	-722	5504	-9522
Santiago Canyon College	-562626	-347365	-595881	640803	-51409	-183296
Orange Education Center	9634	-132799	-60610	8443	93819	-16303
Districtwide	-1760903	-958188	-1339639	2165376	878660	-202939

PERCENTAGE CHANGE: YEAR TO YEAR

Water Use Percent Change by Fiscal Year Compared to Previous Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average %
District Operations Center	-26.30%	-5.33%	-17.97%	40.95%	7.71%	-0.19%
Santa Ana College	-26.06%	-5.01%	-13.43%	14.22%	0.34%	-5.99%
Centennial Education Center	4.21%	-22.95%	-84.88%	209.69%	65.40%	34.30%
Digital Media Center	17.77%	-11.40%	73.19%	-49.16%	-23.87%	1.31%
Orange County Sheriff's Regional Training Academy	53.14%	87.36%	245.18%	-41.96%	-82.89%	52.16%
Santiago Canyon College	-9.93%	-1.31%	7.58%	0.83%	-23.77%	-5.32%
Orange Education Center	-86.41%	-95.43%	-100.00%	0.00%	0.00%	-56.37%
Districtwide	-18.40%	-1.86%	6.83%	0.34%	-17.21%	-6.06%

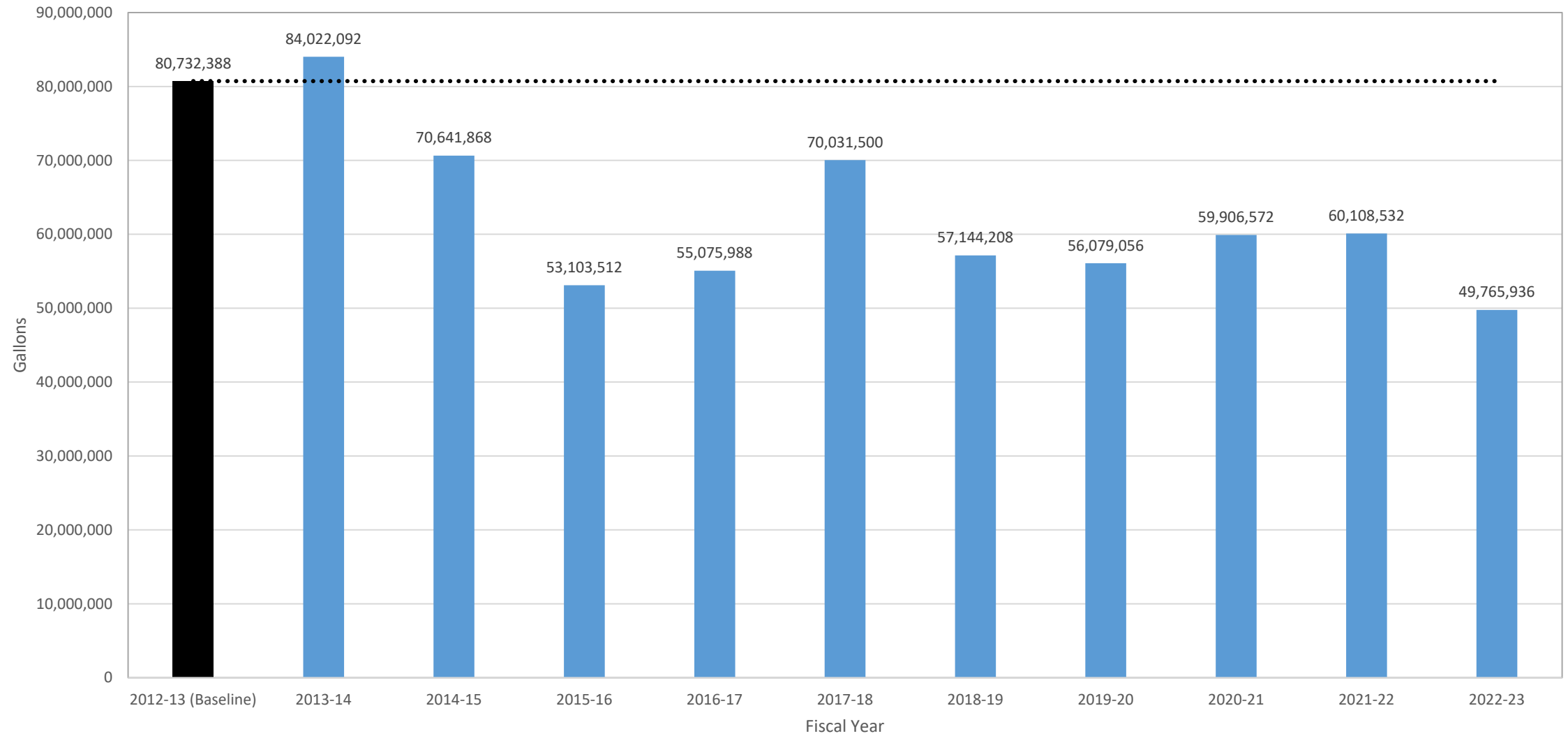
Natural Gas Use Percent Change by Fiscal Year Compared to Previous Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average %
District Operations Center	3.39%	-23.43%	-20.29%	-17.38%	101.70%	8.80%
Santa Ana College	1.87%	-5.07%	9.07%	24.13%	40.78%	14.16%
Centennial Education Center	27.20%	0.32%	1.70%	20.33%	13.87%	12.69%
Digital Media Center	-90.05%	477.17%	-71.59%	-99.80%	6390.10%	1321.16%
Orange County Sheriff's Regional Training Academy	-7.89%	2.99%	-24.94%	-0.80%	86.05%	11.08%
Santiago Canyon College	15.08%	-16.37%	-33.65%	52.00%	9.00%	5.21%
Orange Education Center	-100.00%	0.00%	0.00%	0.00%	0.00%	-20.00%
Districtwide	5.82%	-10.00%	-10.26%	29.54%	32.24%	9.47%

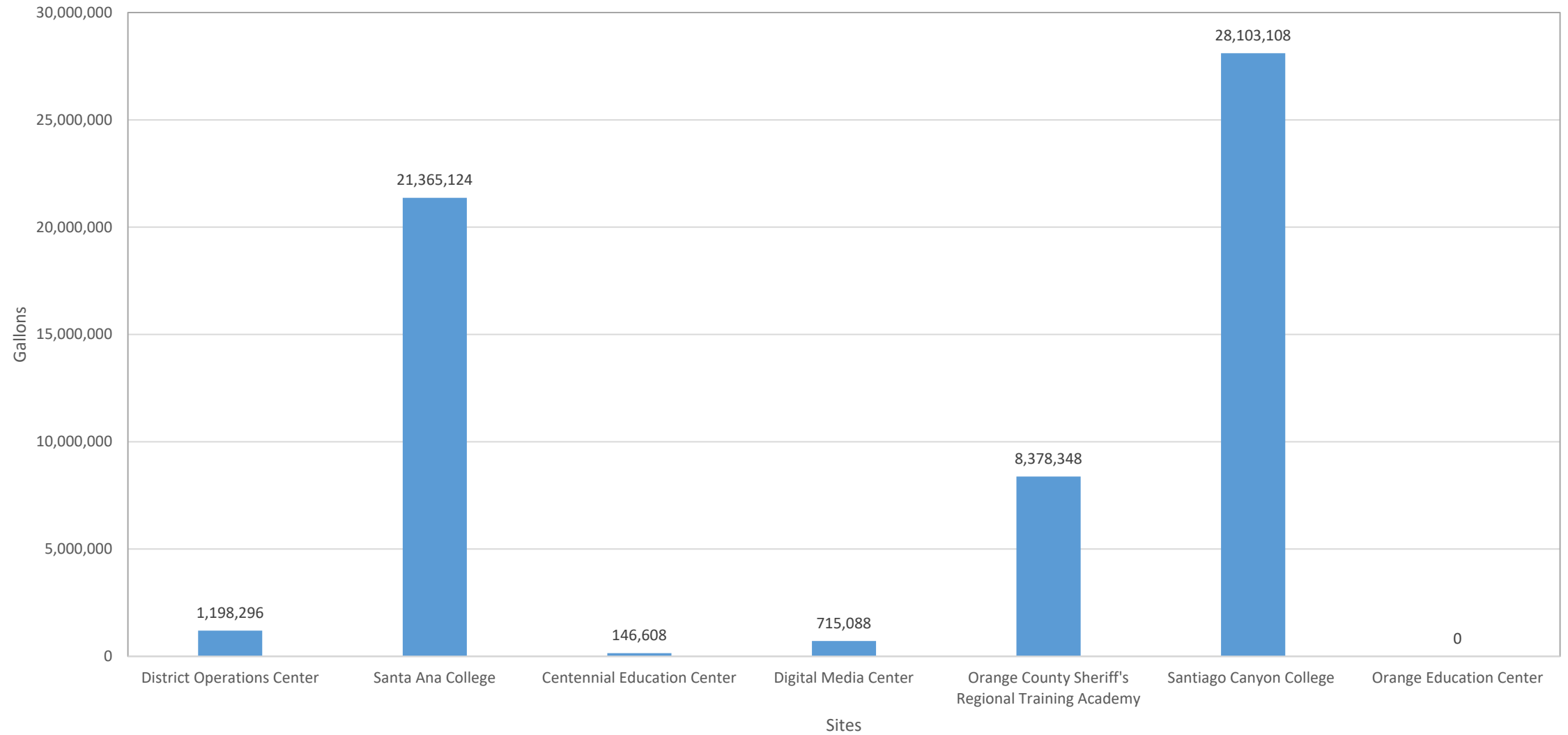
Electricity Use Percent Change by Fiscal Year Compared to Previous Year

Sites	2018-19	2019-20	2020-21	2021-22	2022-23	Five Year Average %
District Operations Center	-3.05%	-3.66%	-10.62%	5.46%	-6.09%	-3.59%
Santa Ana College	-13.32%	-4.44%	-5.08%	19.07%	10.56%	1.36%
Centennial Education Center	-0.58%	-17.01%	-36.75%	50.98%	7.84%	0.90%
Digital Media Center	-6.57%	-1.90%	-7.26%	11.66%	0.87%	-0.64%
Orange County Sheriff's Regional Training Academy	-3.07%	-1.10%	-3.21%	-0.11%	0.82%	-1.34%
Santiago Canyon College	-11.85%	-8.30%	-15.53%	19.77%	-1.32%	-3.45%
Orange Education Center	4.09%	-54.18%	-53.97%	16.33%	156.01%	13.66%
Districtwide	-10.93%	-6.68%	-10.01%	17.98%	6.18%	-0.69%

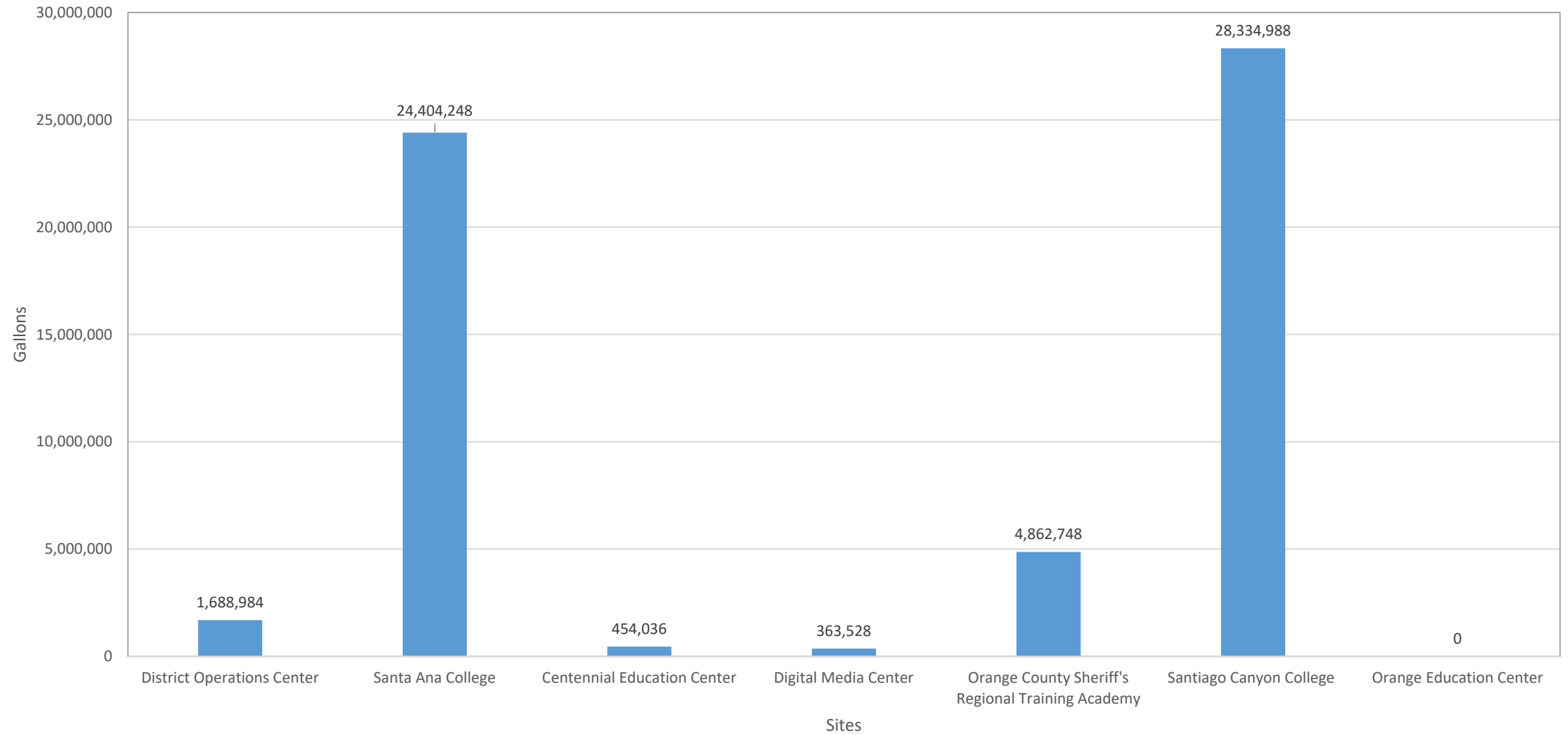
Districtwide Water Consumption History by Fiscal Year



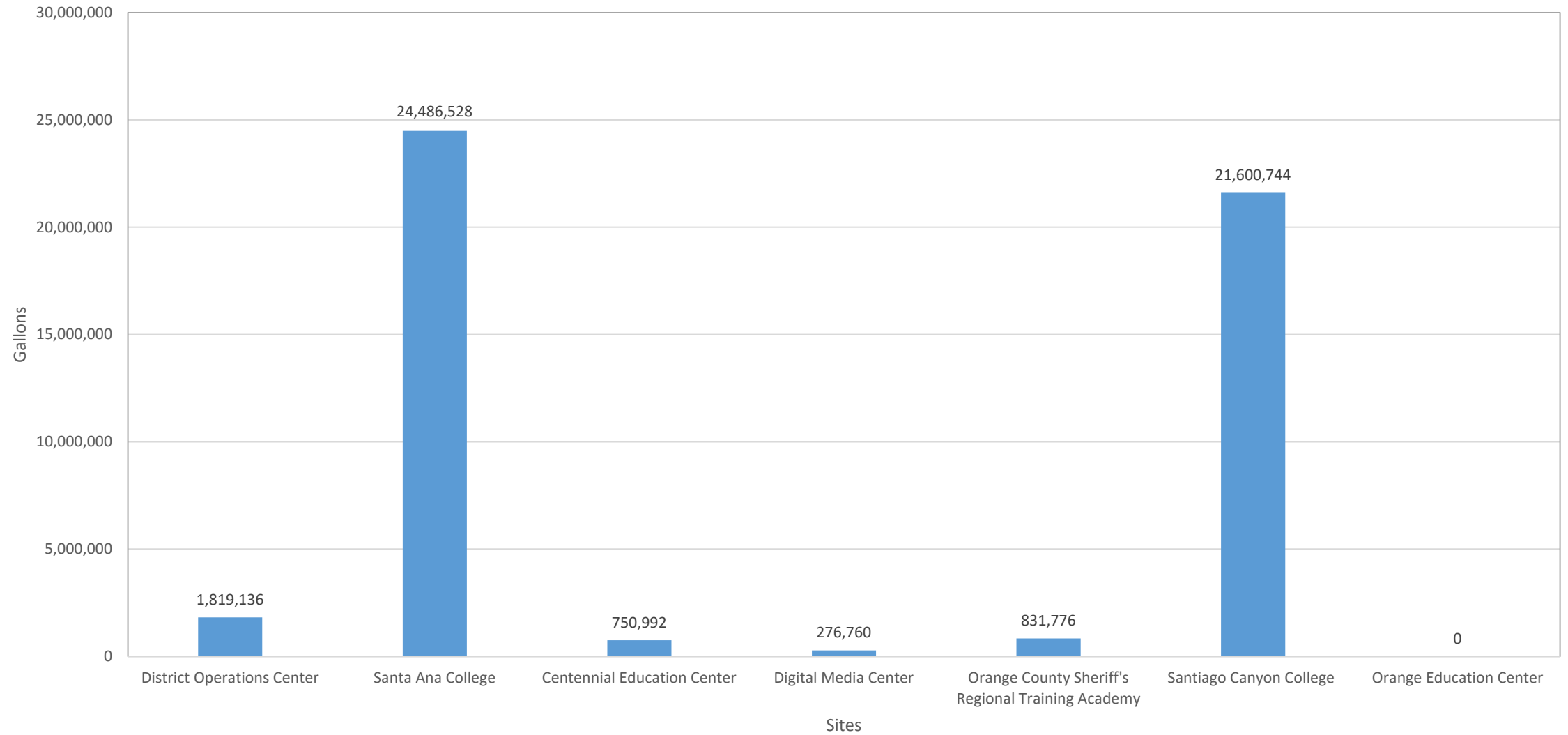
District Sites Water Consumption Fiscal Year 2020-21



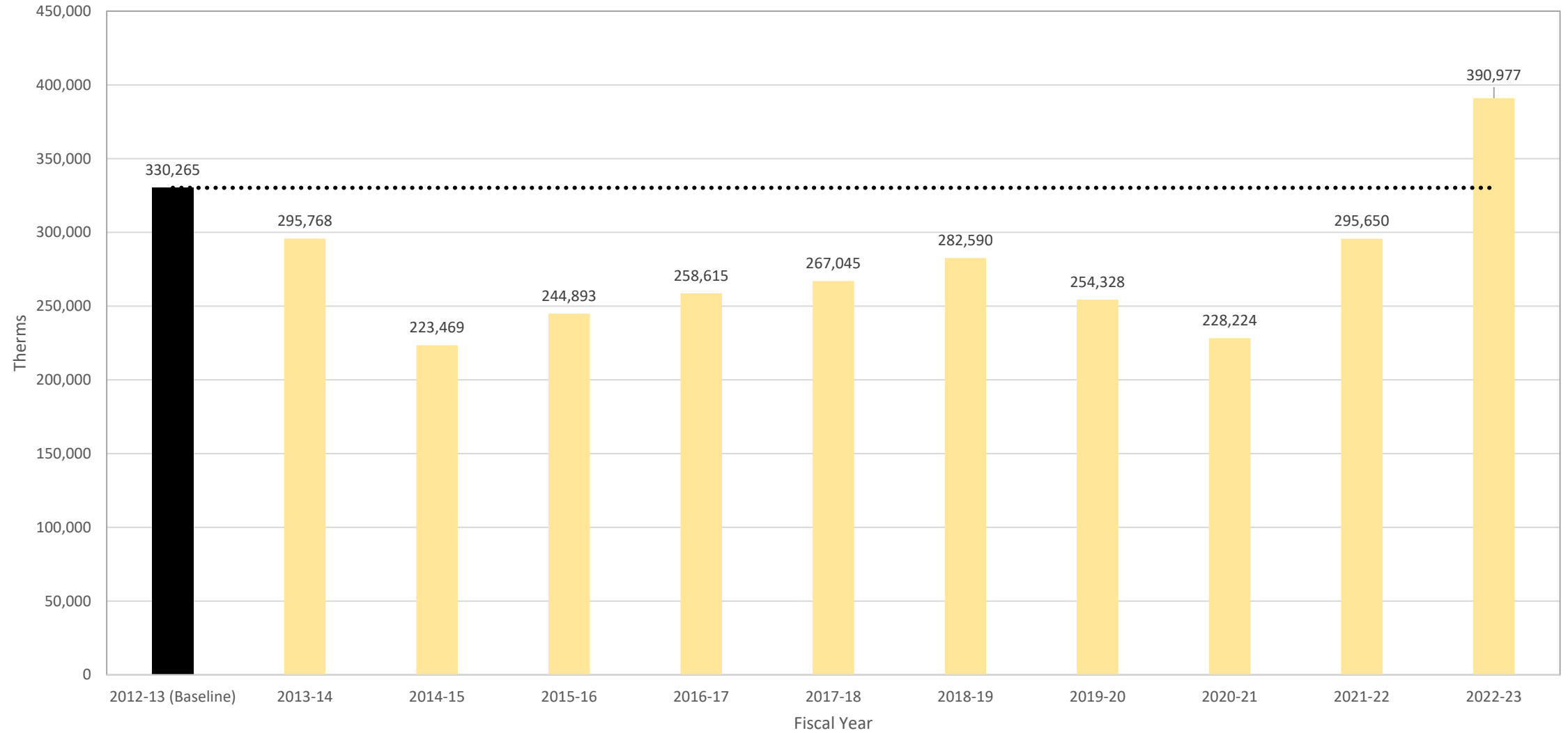
District Sites Water Consumption Fiscal Year 2021-22



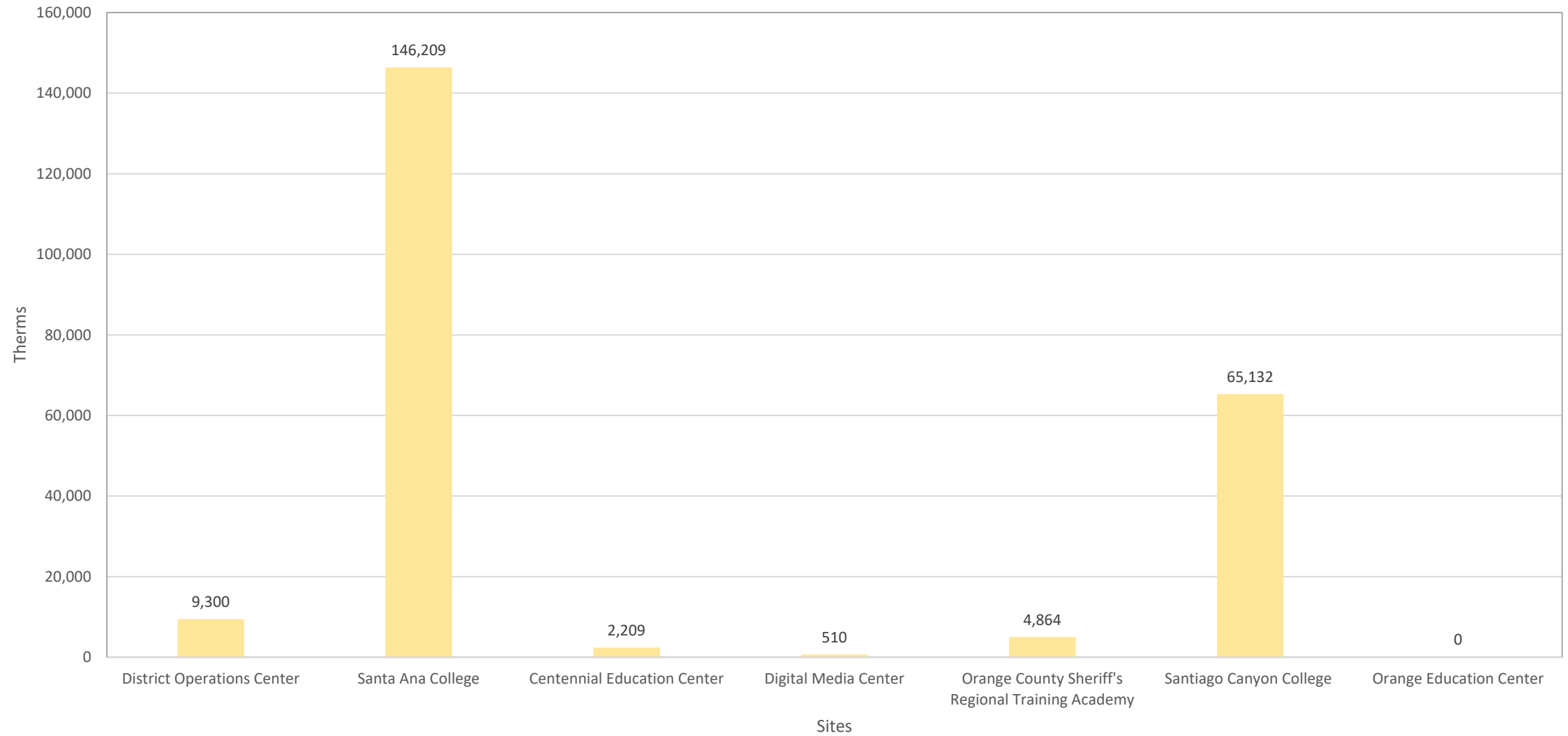
District Sites Water Consumption Fiscal Year 2022-23



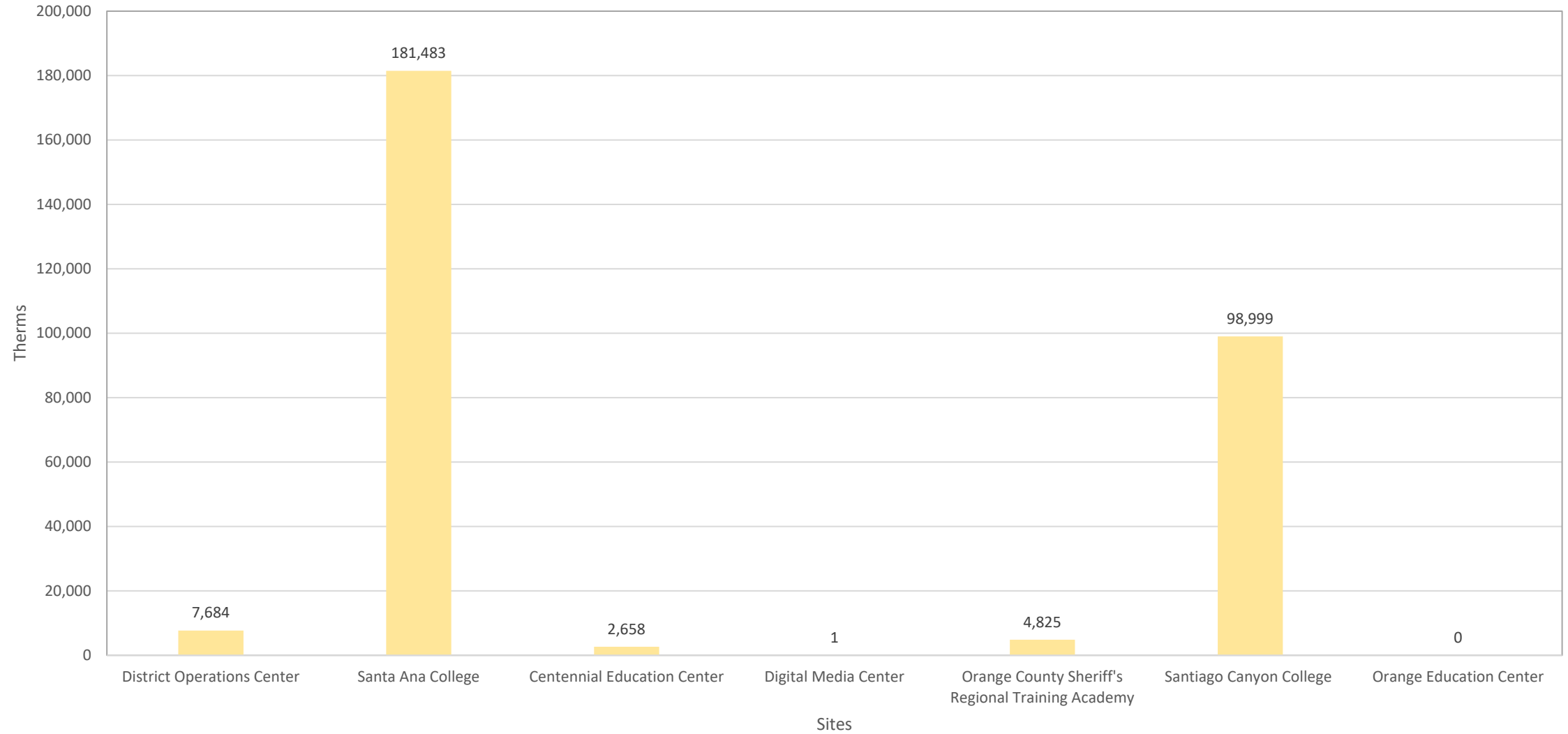
Districtwide Gas Consumption History by Fiscal Year



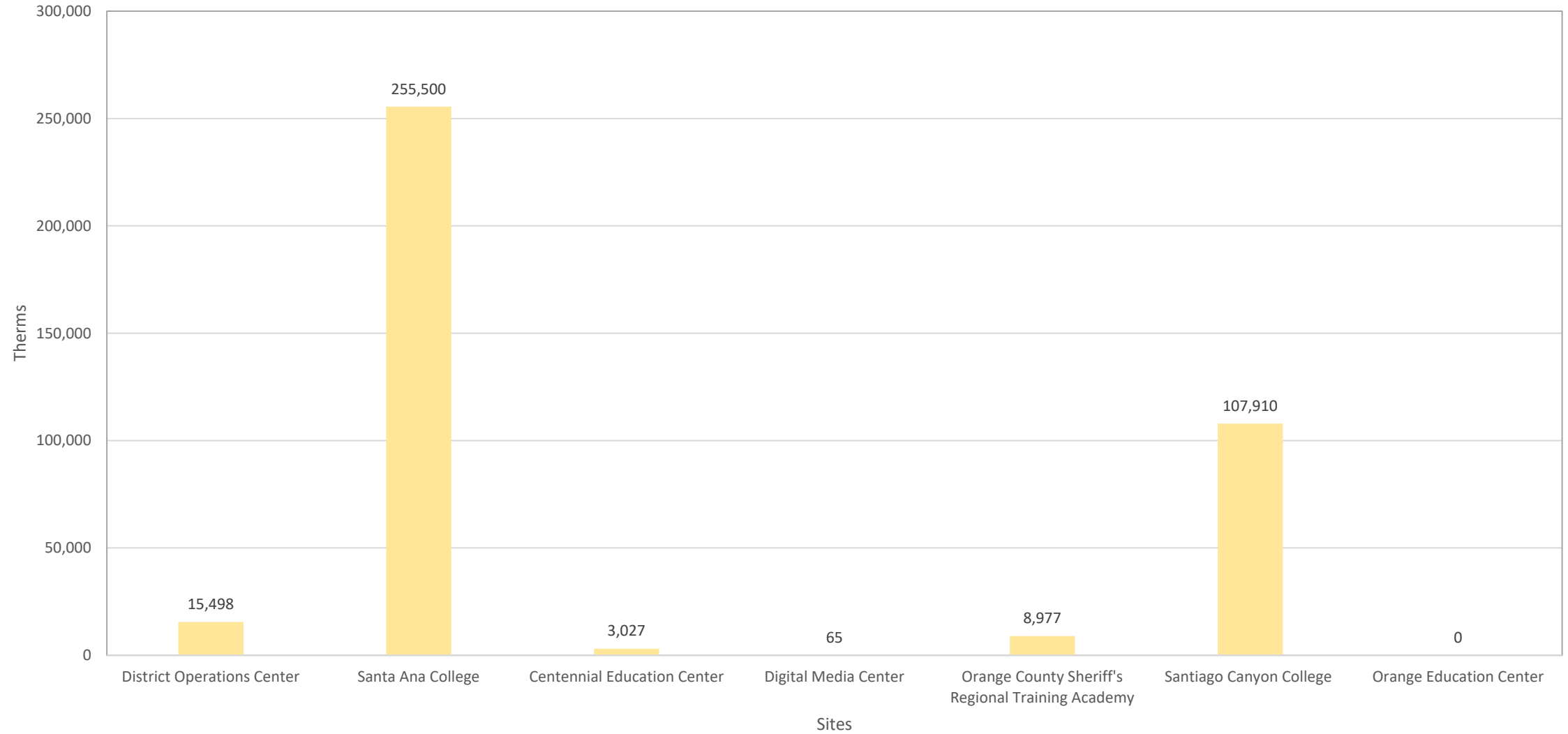
District Sites Natural Gas Consumption Fiscal Year 2020-21



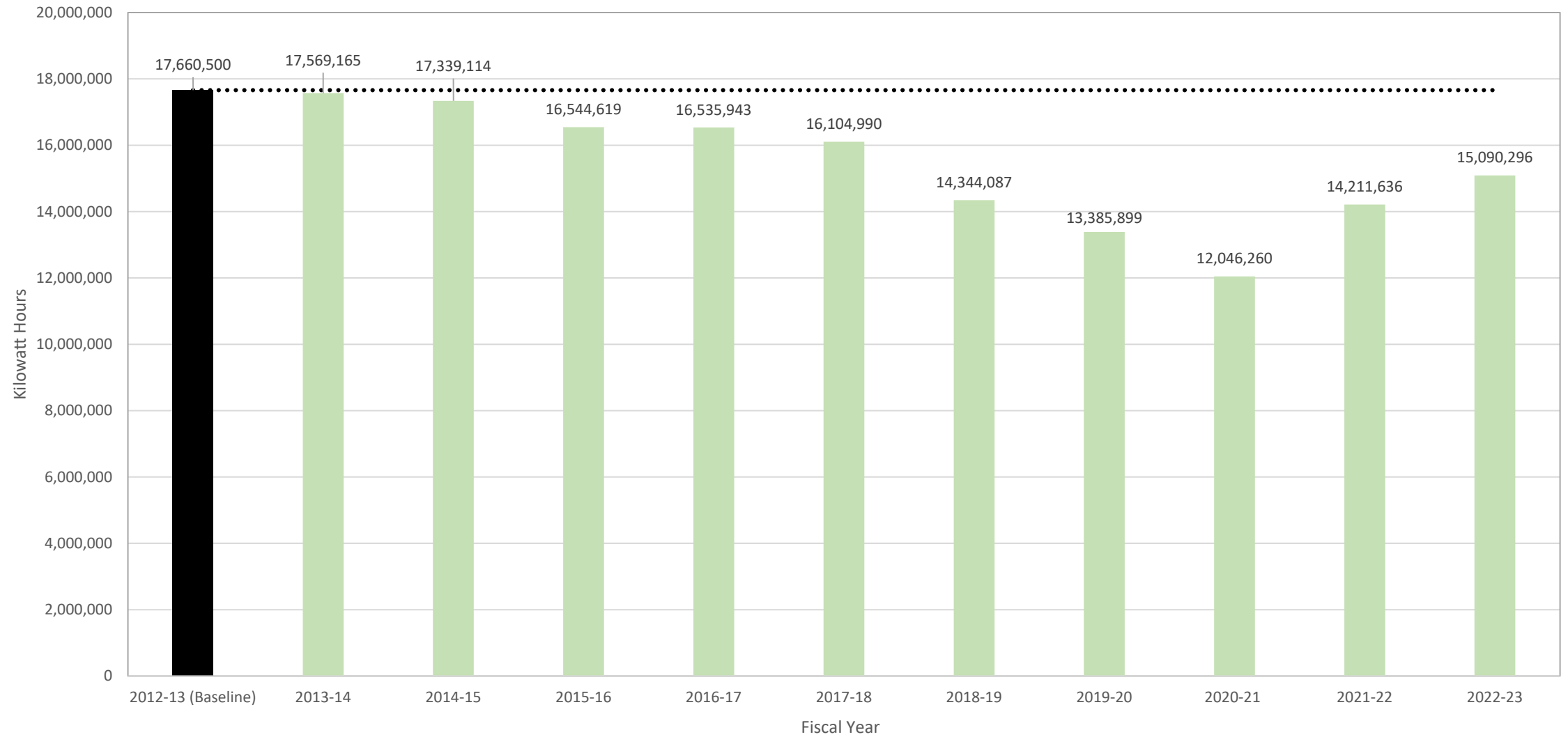
District Sites Natural Gas Consumption Fiscal Year 2021-22



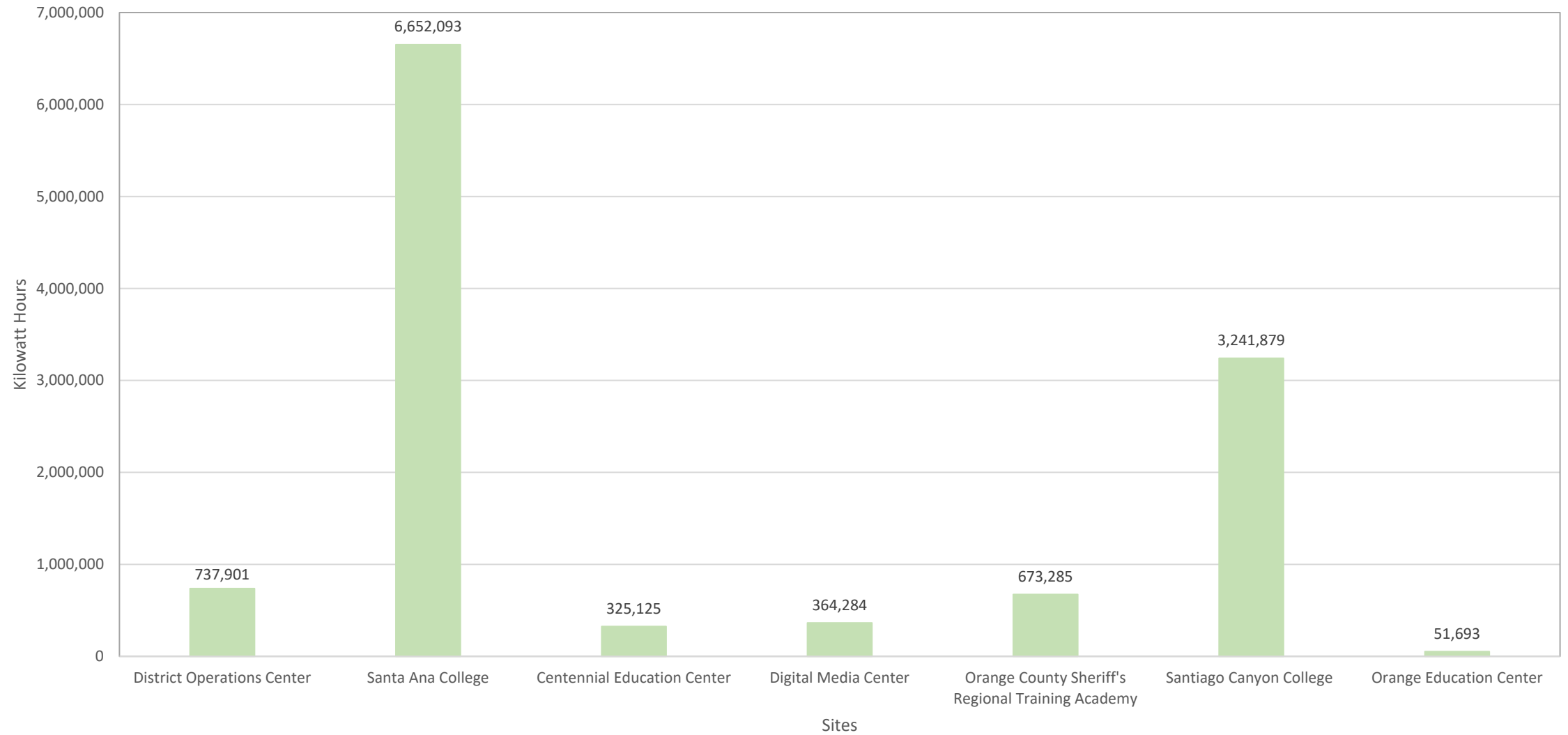
District Sites Natural Gas Consumption Fiscal Year 2022-23



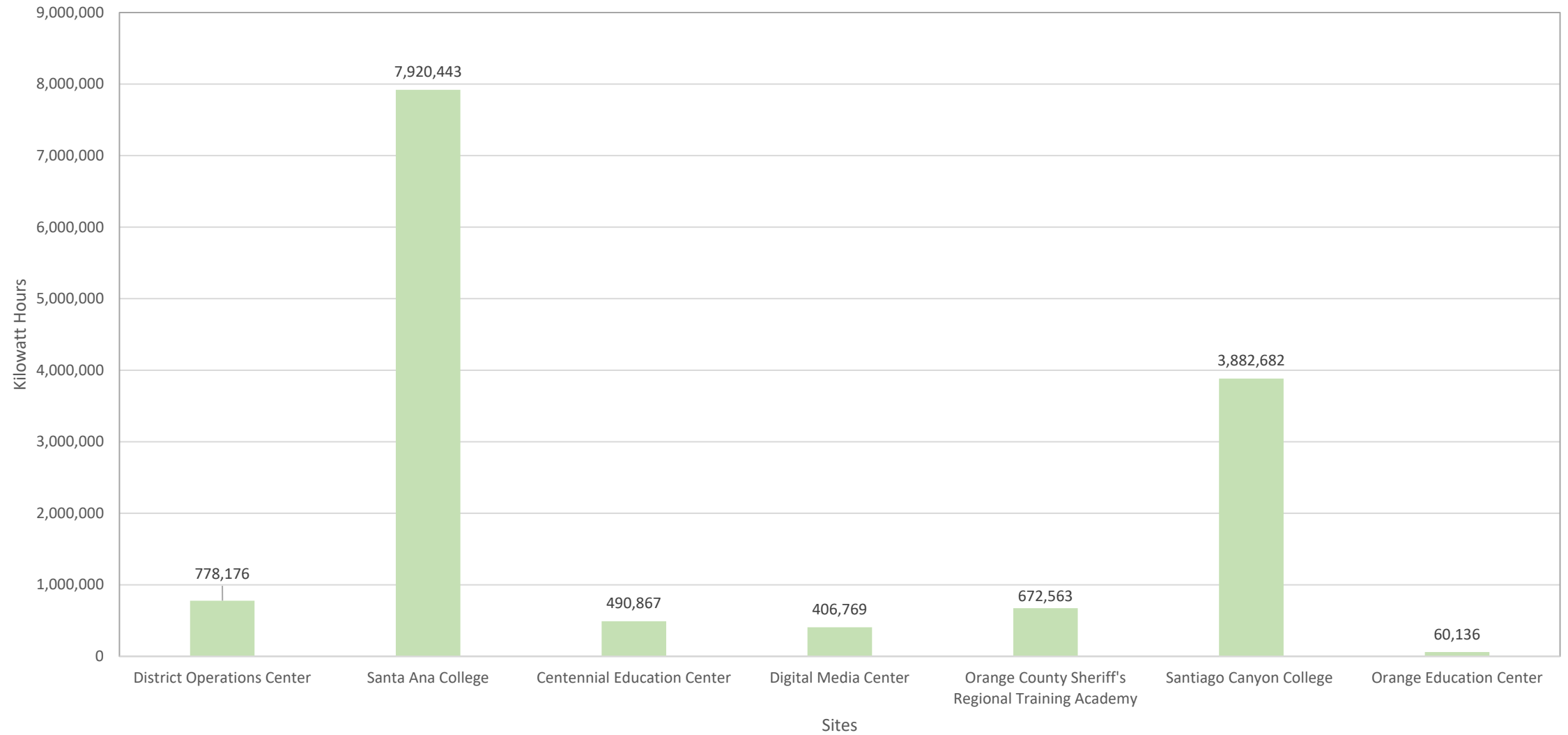
Districtwide Electricity Consumption History by Fiscal Year



District Sites Electricity Consumption Fiscal Year 2020-21



District Sites Electricity Consumption Fiscal Year 2021-22



District Sites Electricity Consumption Fiscal Year 2022-23

