

# Rancho Santiago Community College District Sustainable RSCCD Committee

March 17, 2021

Zoom Meeting: <u>https://cccconfer.zoom.us/j/93366354617</u> 3:00 – 4:00 p.m.

# Agenda

- 1. Introductions
- 2. Meeting Notes of November 18, 2020 Matsumoto
- 3. Reuse for Better Use Initiative for Plastic and Paper Reduction Matsumoto
- 4. Strategic Planning Goal #5 Matsumoto
- 5. Draft 2018-2020 Biennial Sustainability Report and Sub-Work Group Matsumoto
- 6. WARE Disposal Diversion and Recycling Report Matsumoto
- 7. College Updates

Santiago Canyon College - Satele

Santa Ana College – Hoffman

8. Other

<u>Next Meeting</u>: May 18, 2021 3:00 p.m. Zoom or TBD

Mission Statement

The mission of the Rancho Santiago Community College District is to provide quality educational programs and services that address the needs of our diverse students and communities.

The mission of Santa Ana College is to inspire, transform, and empower a diverse community of learners.

Santiago Canyon College is an innovative learning community dedicated to intellectual and personal growth. Our purpose is to foster student success and to help students achieve these core outcomes: to learn, to act, to communicate and to think critically. We are committed to maintaining standards of excellence and providing the following to our diverse community: courses, certificates and degrees that are accessible, applicable, and engaging.



# Rancho Santiago Community College District Sustainable RSCCD Committee

Meeting Notes November 18, 2020

Members:	Carri Matsumoto	Present
	Bart Hoffman	Present
	Arleen Satele	Present
	Jim Kennedy	Absent
	Angela Guevara	Present
	Mary Mettler	Present
	Aggie Sehm	Absent
	Ambar Nakagami	Present
	Simone Wolfe	Present
	Jocelyn Montiel	Present
	Samanta Errera	Absent

Assistant Vice Chancellor Carri Matsumoto convened the meeting at 3:02 p.m.

1. Introductions

Committee members introduced themselves.

- Meeting Notes of September 16, 2020 Ms. Matsumoto noted the meeting notes from the September 16, 2020 meeting were attached to the agenda for today's meeting.
- Sustainable RSCCD Committee Purpose, Responsibilities and Membership Ms. Matsumoto shared the Sustainable RSCCD Committee Purpose, Responsibilities and Membership and asked the committee if they had any questions, comments or edits. The committee did not have any.
- 4. <u>Reuse for Better Use Initiative for Plastic Reduction</u>

Ms. Matsumoto asked the committee if they had any suggestions and thoughts to help continue the campaign of reducing plastic use. Ms. Matsumoto suggested to change the campaign to reduce plastic and paper use. The committee unanimously agreed that paper reduction and plastic reduction were initiatives the committee wanted to focus on.

Sustainable RSCCD Committee Meeting November 18, 2020

- 5. <u>Draft 2018-2020 Biennial Sustainability Report and Sub-Work Group</u> Ms. Matsumoto noted that the next biennial sustainability report is currently being drafted and asked if the colleges could provide updates to include in the report.
- 6. <u>College Updates</u> Ma Satala had no undates for SCC Mr. Hoffman 1

Ms. Satele had no updates for SCC. Mr. Hoffman had no updates for SAC.

7. Landscaping Standards

Ms. Matsumoto shared the Approved Landscape Planting List and Details from the Facility Design Standards and noted the planting list was recently updated with feedback from both colleges. Ms. Satele asked if she could share this at the next SCC Facilities Committee meeting, which is welcomed.

8. Other

Ms. Satele suggested the campuses could hold virtual Earth Day event/symposium next year in April and asked Ms. Montiel if she could inquire with ASG if they would want to host this.

9. Next Meeting Date

The next meeting will be held on Wednesday, March 17, 2021, at 3 p.m. in the Executive Conference Room (#114) at the District Office or via Zoom.

Meeting Adjournment: 3:44 p.m.

GOAL #5: RSCCD will use a cycle of integrated planning that will demonstrate the effective use of resources.

# Objective 5A: SUPPORT AND ENCOURAGE GREEN PRACTICES AND SUSTAINABILITY

The District and the Colleges have focused their efforts over the last several years on an overall planning process that integrates and coordinates district-level planning with planning efforts at the Colleges. Much of this effort has occurred in relation to the Educational Master Plan for each College, the College Facility Master Plans, and the Strategic Plan for the District.

The Sustainable RSCCD Committee was formed prior to the development of the RSCCD Strategic Plan. However, it is the key committee that is working to raise awareness around issues of sustainability. The committee reviews the plan goals annually, develops action plans and projects, updates the Sustainability Plan as needed, makes recommendations for priorities, and ensures there is measurable and continuous progress in the area of sustainability.

The Sustainable RSCCD Committee has accomplished several major tasks. This committee was instrumental in updating *Board Policy 6012 Sustainable Practices*. This revised and expanded policy provides the authority to the Chancellor to establish sustainable practices for the District. The vehicle for establishing and defining those sustainable practices is the Sustainability Plan for the District which was approved by the Board of Trustees on March 9, 2015. This plan sets out a vision for the District and identifies a number of goals and objectives that are intended to improve existing practices or to establish new practices that align with the principles of sustainability. Measurement tools for the effectiveness of the goals of the plan are continuously reviewed by the committee and further developed as needed.

The committee has published two biennial reports covering the years of 2014-2016 and 2016-2018. These reports are available on the District's website at <u>https://www.rsccd.edu/Departments/Business-Operations/sustainable-rsccd-committee/Pages/default.aspx</u>.

The committee is currently working on its 2018-2020 biennial report. For the fiscal years 2016-2018, the committee had the following achievements summarized below:

### Achievements:

- Compiled Utility Data Use for the last 8 years and established the baseline year as 2012-2013.
- Districtwide utility use has gone down by 5% for electricity, gas, and water in comparison to 2012-2013.
- A new central chiller plant and replacement of underground utilities were completed at Santa Ana College, along with new sustainable landscaping.
- Santa Ana College's new Science Center building is under construction and is LEED Silver equivalent, and is 28% more energy efficient than required by code.
- Santiago Canyon College has been utilizing the new Energy Management System (EMS) and making operational adjustments for both HVAC and exterior lighting with the new controls provided.
- A standard set of guidelines for building operators was set for building temperature set points (for heating and cooling) and continues to be implemented across all buildings.

### Goals established by the Committee for the next two years fiscal years 18/19-19/20 were as follows:

- Retain a new waste hauler and start additional recycling programs completed and underway
- Add standards for procurement (products) underway
- Add more water hydration stations at Santa Ana College and Santiago Canyon College completed and on-going
- Additionally, this last April 2019, the committee decided to focus on reduction of plastic use as a single objective for the next academic year to continue to promote educational awareness on this topic. This was a suggestion by one of the student members and the committee embraced and supported this initiative.
- The committee continues to support the objective of reducing plastic use in the current year and will revisit objectives, goals and projects again in the fall semester of 2020 when the committee reconvenes. The committee is currently working on drafting the next biennial report.

### Santa Ana College

Santa Ana College supports and encourages focused green practices with the following activities:

- The college continues to operate and manage the new Central Plant to further reduce energy use.
- The new Science Center and Johnson Student Centers are currently under construction. Both projects are designed and built to meet and/or exceed Title 24, CALGreen standards as well as meet LEED Silver Equivalency.
- In the last year of Prop 39, California Clean Energy Jobs Act K-12 projects, the District completed upgrades to occupancy sensors to reduce lighting use. The District installed new efficient irrigation controllers (total of 8) so that the campus can better manage irrigation for landscaping. There is an additional phase of work for replacement of the remaining controllers (approximately 5) that has completed the design phase and is anticipated to be released for bids in early Spring 2021.
- The College Maintenance and Operations Department continues to use an Energy Management System (EMS) to control the HVAC and lighting equipment with regular preventative maintenance schedules to ensure HVAC systems and lighting work properly and efficiently.
- The College has also created various programs and taskforces to address green awareness. In the past, the college had an Environmental Taskforce, a sub-committee to the College's Facilities Committee, which focused on implementation of sustainable building practices for SAC.
- Santa Ana College actively engages, via the Sustainable RSCCD Committee, in alternative commuting opportunities, which includes the implementation of a bus pass program, in partnership with the Orange County Transportation Authority, for students. The College is in compliance with the South Coast AQMD survey requirements in accordance with emission reduction targets.

Santa Ana College works to integrate student and curriculum development where feasible. In the past, the College has engaged in the following activities:

- Engineering focused on energy efficiency and building design, including thermal massing and natural ventilation as cooling methods.
- Biology faculty oversees the Green Taskforce, which works to identify recycling projects and collaboration effort for Earth Day events; and
- A representative from the ASG Environmental Taskforce attends and reports to SAC Facilities Committee and at the Sustainable RSCCD Committee.

# Santiago Canyon College

Santiago Canyon College supports and encourages focused green practices with the following activities:

- In the last year of Prop 39, California Clean Energy Jobs Act K-12 projects, the District completed upgrades to HVAC units in the U portables to improve efficiency and replace/retrofit older equipment.
- The College Maintenance and Operations Department continues to use an Energy Management System (EMS) to control the HVAC and lighting equipment with regular preventative maintenance schedules to ensure HVAC systems and lighting work properly and efficiently.
- Additional hydration stations were installed in Buildings D, E, G, H, L, SC, T and Concession Stand.
- Electric hand dryers were installed in restrooms in Buildings D, E, G, H, L, SC, T and Concession Stand.
- The new Safety and Security Building project installed two electric charging stations servicing four stalls, one of which is accessible (Parking Lot 6).
- East Chapman Entry Repairs project included the installation of drought tolerant, native plants that are low maintenance and reduce water consumption. In addition, the existing irrigation leaked and caused soil erosion so all of the irrigation on the entire slope was repaired.
- Santiago Canyon College actively engages, via the Sustainable RSCCD Committee, in alternative commuting opportunities, which includes the implementation of a bus pass program, in partnership with the Orange County Transportation Authority, for students. The College is in compliance with the South Coast AQMD survey requirements in accordance with emission reduction targets.
- The Associated Student Government (ASG) has created a position called "Senator of Innovation and Sustainability". ASG promotes recycling and strives to reduce SCC's carbon footprint. In 2014, ASG initiated the collection of plastic, glass, and aluminum by placing containers at various locations and transporting them to a recycling center. Funds collected are used to support ASG programs.

### Historical Utility Use and Consumption

The below tables of data reflect an overall districtwide consumption by year, type of utility, and site. The data is based on a snapshot in time measured against the baseline year of 2013, in an effort to track trends on use and consumption. In development of the District's Sustainability Plan, the committee agreed to utilize 2013 utility data as the baseline year since it was the first year the committee had compiled the most comprehensive set of data from utility companies and was the best available information at the time.

Utility data is provided annually to the Sustainable RSCCD Committee with more detail for review. Additionally, the colleges are provided data by meter, if available, to utilize in review of assessing more specific site or building use/consumption as a facility management tool. The data fluctuates for a variety of reasons and individual site reports are provided and discussed with the committee and colleges, including discrepancies. Often times, it is related to construction projects, new buildings opening, changes in equipment or additions of equipment, weather changes, and/or utility disruption such as waterline breaks or repairs. Utility data is updated annually and the source of data is provided from utility company bills. Utility companies often "true-up" data at various times in a year for previous months or years, which then changes the data which is why there are often changes in reporting the utility use data. It is recognized by the committee members that the data is often not accurate but is a tool for measurement that may not always correlate to sustainability practices implemented.

On May 5, 2019, it was reported in the Sustainable RSCCD Committee that Southern California Edison (SCE) did not properly bill the District on the actual electricity usage from the meters at Santiago Canyon College for several years which effects the electricity data reports previously provided. New utility usage reports were updated in Fall 2019 after SCE finally did a reconciliation for Santiago Canyon College Aquatic and Humanities building meters and produced new bills that changed past historical use. Utility companies may at times bill based off of projected or past average use if meters are not read timely, which is why the billing and data can be inaccurate. Therefore, it is important to understand how this data is

collected and reviewed on an on-going basis as a management tool, but not to be relied upon as a sole source of measurement for success in the area of monitoring and managing the District's comprehensive sustainability practices and objectives.

#### **DATA SUMMARIZING USAGE BY SITE**

	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20						
District Operations	1,977,160	1,875,984	1,831,900	1,438,404	1,674,024	2,093,652	1,543,124	1,460,844						
Santa Ana College*	39,334,328	40,391,252	35,657,160	30,757,760	29,862,404	37,586,252	29,001,456	28,489,824						
Santiago Canyon College**	39,400,900	41,754,856	33,170,808	20,907,348	23,539,560	30,351,596	26,599,628	26,128,388						
Districtwide	80,712,388	84,022,092	70,659,868	53,103,512	55,075,988	70,031,500	57,144,208	56,079,056						
*includes Centennial Education (	Center, Digital Mea	dia Center, OC Sh	eriff's Regional Tr	aining Academy	*includes Centennial Education Center, Digital Media Center, OC Sheriff's Regional Training Academy									

### Water Usage (Gallons) by Site Fiscal Year 2012-13 through 2019-20

\*\*includes Orange Education Center

Source: RSCCD Facility Planning, District Construction & Support Services

### Natural Gas Usage (Therm) by Site Fiscal Year 2012-13 through 2019-20

	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
District Operations	7,303	8,360	5,331	7,347	11,016	14,738	15,238	11,668
Santa Ana College*	155,355	137,749	112,756	121,663	134,937	150,277	149,976	144,497
Santiago Canyon College**	167,607	149,659	105,382	115,883	112,662	102,030	117,376	98,163
Districtwide	330,265	295,768	223,469	244,893	258,615	267,045	282,590	254,328

\*includes Centennial Education Center, Digital Media Center, OC Sheriff's Regional Training Academy

\*\*includes Orange Education Center

Source: RSCCD Facility Planning, District Construction & Support Services

#### Electricity Usage (KWH) by Site Fiscal Year 2012-13 through 2019-20

	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
District Operations	1,222,424	1,379,409	1,125,280	847,325	865,735	883,893	856,975	825,599
Santa Ana College*	10,665,533	10,779,366	10,249,233	10,197,491	10,165,076	10,237,878	9,056,885	8,610,237
Santiago Canyon College*	5,772,543	5,410,390	5,964,601	5,499,803	5,505,132	4,983,219	4,430,227	3,950,063
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

\*includes Centennial Education Center, Digital Media Center, OC Sheriff's Regional Training Academy

\*\*includes Orange Education Center

Source: RSCCD Facility Planning, District Construction & Support Services

### DATA SUMMARIZING PERCENTAGE CHANGE BETWEEN FISCAL YEAR AND BASELINE YEAR

#### Water Usage Percentage Change between Fiscal Year and Baseline Year Fiscal Year 2012-13 through 2019-20

	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	7-Year Average %
District Operations	0.00%	-5.12%	-7.35%	-27.25%	-15.33%	5.89%	-21.95%	-26.11%	-13.89%
Santa Ana College*	0.00%	2.69%	-9.35%	-21.80%	-24.08%	-4.44%	-26.27%	-27.57%	-15.83%
Santiago Canyon College**	0.00%	5.97%	-15.81%	-46.94%	-40.26%	-22.97%	-32.49%	-33.69%	-26.60%
Districtwide	0.00%	4.10%	-12.45%	-34.21%	-31.76%	-13.23%	-29.20%	-30.52%	-21.04%

\*includes Centennial Education Center, Digital Media Center, OC Sheriff's Regional Training Academy

\*\*includes Orange Education Center

Source: RSCCD Facility Planning, District Construction & Support Services

#### Natural Gas Usage Percentage Change between Fiscal Year and Baseline Year Fiscal Year 2012-13 through 2019-20

	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	7-Year Average %
District Operations	0.00%	14.47%	-27.00%	0.60%	50.84%	101.81%	108.65%	59.77%	44.16%
Santa Ana College*	0.00%	-11.33%	-27.42%	-21.69%	-13.14%	-3.27%	-3.46%	-6.99%	-12.47%
Santiago Canyon College**	0.00%	-10.71%	-37.13%	-30.86%	-32.78%	-39.13%	-29.97%	-41.43%	-31.71%
Districtwide	0.00%	-10.45%	-32.34%	-25.85%	-21.69%	-19.14%	-14.44%	-22.99%	-20.99%

\*includes Centennial Education Center, Digital Media Center, OC Sheriff's Regional Training Academy

\*\*includes Orange Education Center

Source: RSCCD Facility Planning, District Construction & Support Services

#### Electricity Usage Percentage Change between Fiscal Year and Baseline Year Fiscal Year 2012-13 through 2019-20

	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	7-Year Average %
District Operations	0.00%	12.84%	-7.95%	-30.68%	-29.18%	-27.69%	-29.90%	-32.46%	-20.72%
Santa Ana College*	0.00%	1.07%	-3.90%	-4.39%	-4.69%	-4.01%	-15.08%	-19.27%	-7.18%
Santiago Canyon College*	0.00%	-6.27%	3.33%	-4.72%	-4.63%	-13.67%	-23.25%	-31.57%	-11.54%
Districtwide	0.00%	-0.52%	-1.82%	-6.32%	-6.37%	-8.81%	-18.78%	-24.20%	-9.54%

\*includes Centennial Education Center, Digital Media Center, OC Sheriff's Regional Training Academy \*\*includes Orange Education Center

Source: RSCCD Facility Planning, District Construction & Support Services

#### DATA SUMMARIZING USAGE CHANGE ON YEARLY BASIS

#### Water Usage Percentage Change on Yearly Basis Fiscal Year 2012-13 through 2019-20

	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	8-Year Average %
District Operations	-8.98%	-5.12%	-2.35%	-21.48%	16.38%	25.07%	-26.30%	-5.33%	-3.51%
Santa Ana College*	12.28%	2.69%	-11.72%	-13.74%	-2.91%	25.86%	-22.84%	-1.76%	-1.52%
Santiago Canyon College**	42.30%	5.97%	-20.56%	-36.97%	12.59%	28.94%	-12.36%	-1.77%	2.27%
Districtwide	24.38%	4.10%	-15.90%	-24.85%	3.71%	27.15%	-18.40%	-1.86%	-0.21%

\*includes Centennial Education Center, Digital Media Center, OC Sheriff's Regional Training Academy

\*\*includes Orange Education Center

Source: RSCCD Facility Planning, District Construction & Support Services

### Natural Gas Usage Percentage Change on Yearly Basis Fiscal Year 2012-13 through 2019-20

	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	8-Year Average %
District Operations	-32.88%	14.47%	-36.23%	37.82%	49.94%	33.79%	3.39%	-23.43%	5.86%
Santa Ana College*	-14.15%	-11.33%	-18.14%	7.90%	10.91%	11.37%	-0.20%	-3.65%	-2.16%
Santiago Canyon College**	94.74%	-10.71%	-29.59%	9.96%	-2.78%	-9.44%	15.04%	-16.37%	6.36%
Districtwide	18.84%	-10.45%	-24.44%	9.59%	5.60%	3.26%	5.82%	-10.00%	-0.22%

\*includes Centennial Education Center, Digital Media Center, OC Sheriff's Regional Training Academy

\*\*includes Orange Education Center

Source: RSCCD Facility Planning, District Construction & Support Services

#### Electricity Usage Percentage Change on Yearly Basis Fiscal Year 2012-13 through 2019-20

	2012-13 (Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	8-Year Average %
District Operations	1.16%	11.38%	-22.58%	-32.80%	2.13%	2.05%	-3.14%	-3.80%	-5.70%
Santa Ana College*	2.23%	1.06%	-5.17%	-0.51%	-0.32%	0.71%	-13.04%	-5.19%	-2.53%
Santiago Canyon College*	19.91%	-6.69%	9.29%	-8.45%	0.10%	-10.47%	-12.48%	-12.16%	-2.62%
Districtwide	7.94%	-0.52%	-1.33%	-4.80%	-0.05%	-2.68%	-12.28%	-7.16%	2.61%

\*includes Centennial Education Center, Digital Media Center, OC Sheriff's Regional Training Academy

\*\*includes Orange Education Center

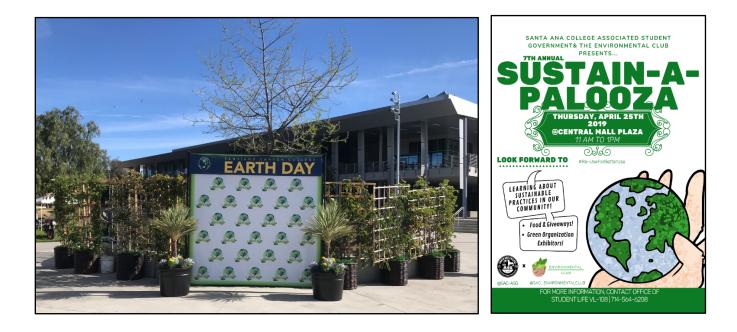
Source: RSCCD Facility Planning, District Construction & Support Services

Historical Consumption Notes:

- The data fluctuates for a variety of reasons and individual site reports are provided and discussed with the Sustainable RSCCD Committee and colleges, including concerns over the data and discrepancies. Often times it is related to construction projects, new buildings opening, changes in equipment or additions of equipment, weather changes, and/or utility disruption such as waterline breaks or repairs.
- 2) 2013: SCC Humanities Building completed construction as well as the SAC perimeter beautification project.
- 3) 2014: SAC temporary village and the Dunlap Hall renovation was in construction.
- 4) 2015: DOC replaced the HVAC system. The SAC Tessmann Planetarium was renovated.
- 5) 2016-2017 and 2017-2018: SAC experienced excessive irrigation and plumbing leaks. Testing of the central plant chiller tanks during construction also required more water consumption than typical.
- 6) 2016-2017: DOC replaced the boiler in 2016 and only 2 of the 3 burners were functioning and struggled to maintain temperature in the building. The new boiler is more efficient but runs longer and at a higher temperate to maintain heating in cooler months. In 2017, the District also added a washer and dryer so the custodians could wash supplies instead of having to drive to SAC to utilize their laundry facilities. This has increased gas consumption use.
- 2018-2019: DMC usage decreased beginning in July 2018 and continued through the year which has resulted in a decrease consumption for SAC. The SAC Central Plant project was completed in January 2018.
- 8) 2018: Orange Education Center gas was turned off and most utilities no longer utilized, resulting in reduced consumption.
- 9) 2019: Orange Education Center building was demolished.
- 10) 2019: SCE sent a 444-page bill to correct miscellaneous charges at SCC covering period of 2012-2019, changes to electricity historical data were made based on this new information.



# SUSTAINABILITY REPORT



Period Covering July 1, 2018 – March 1, 2021 Approved by the Sustainable RSCCD Committee

March 17, 2021 - DRAFT









# TABLE OF CONTENTS

INTRODUCT	ΓΙΟΝ	
	LE RSCCD COMMITTEE MEMBERS: 2018-2021	
GOALS OF T	THE SUSTAINABILITY PLAN	6
GOAL 1:	CAMPUS & COMMUNITY ENGAGEMENT	
GOAL 2:	CURRICULUM DEVELOPMENT	
GOAL 3:	ENERGY	
GOAL 4:	FACILITIES DESIGN & OPERATION	
GOAL 5:	SOLID WASTE MANAGEMENT	
GOAL 6:	SUSTAINABLE PROCUREMENT	
GOAL 7:	TRANSPORTATION	
GOAL 8:	WATER MANAGEMENT	
NONDISCRI	MINATION POLICY	
EXHIBIT A:	Santa Ana College Bicycle Racks and Hydration Stations Location Map	
EXHIBIT B:	Santiago Canyon College Bicycle Racks and Hydration Stations Location Map	
EXHIBIT C:	Electricity, Gas and Water Use Data FY 2010-2020	



# 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. Due to the Covid-19 pandemic in 2020, the committee ran behind schedule in completing its biennial report. Therefore, this report covers the period of July 1, 2018 – March 1, 2021. 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.

The SRC's primary goal 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 with who can 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 committee has reorganized the reporting method for the activities, programs, and projects to align the report outcomes with the identified eight (8) goals of the Plan. This reorganization of the reporting format allows for easier collection of information by members of the SRC and is easily comprehendible to interested individuals. The SRC will continue to focus on implementing programs and projects outlined in Section 4 of the Plan: Sustainable Programs and Projects for Implementation.

The SRC continues to strive towards implementing the goals of the Sustainability Plan and is proud to present the attached report covering the period of July 1, 2018 – March 1, 2021.

# Achievements:

- Compiled Utility Data Use for the last 8 years and established the baseline year as 2012-2013.
- The District has met the original goal stated in the Sustainability Plan 2015 to reduce energy consumption by 5 % from baseline year (2012-13).
- Districtwide there has been an average reduction by 13% in electricity and 21% in gas over the last 5 years when compared to the baseline year.
- California was in a severe drought from 2012 to 2015 and a statewide mandate for water conservation was implemented in 2015. Governor Brown's 2015 Executive Order and subsequent State Water Resources Control Board (SWRCB) drought regulations require the District to conserve water.
- The District has met the 5% reduction water use goal.
- Districtwide there has been a water use reduction by 28% over the last 5 years in comparison to the baseline year.
- Successfully completed all Five Years of energy efficient projects utilizing Proposition 39 state funding and passed all state audits.
- Incorporated several sustainable features in the new construction projects at both colleges.
- Accomplished the procurement of several new sustainable products and equipment.
- Contracted with a new waste hauler to track and provide data on waste and recyclable materials.



Goals established by the Committee for the past two years and the fiscal year 2021 are as follows:

- Reuse for Better Use initiative for plastic reduction
- Paper reduction



# SUSTAINABLE RSCCD COMMITTEE MEMBERS: 2018-2021

### Santa Ana College

Bart Hoffman, Interim Vice President, Administrative Services (2018-Current) James Kennedy, Ed.D., Vice President, Continuing Education Centennial Education Center (2016-Current)

Kimo Morris, Ph.D., Faculty (2016-2020) Kelly Ro, Faculty (2018-2019)

Aggie Sehm, Classified Staff (2018-Current)

Luis Ortiz, Student (2018-2019) Omar Cortes, Student (2019)

#### Santiago Canyon College

Arleen Satele, Ed. D., Vice President of Administrative Services (2016-Current) Jose Vargas, Vice President of Continuing Education Orange Education Center (2016-2019)

Angela Guevara, Faculty (2017-Current) Mary Mettler, Faculty (2020-Current)

Ambar Nakagami, Classified Staff (2018-Current)

Nicholas Valle, Student (2018-2019) Jocelyn Montiel (2020-Current)

### **District Office**

Raúl Rodríguez, Ph.D., Chancellor (2016-2019) Carri Matsumoto, Assistant Vice Chancellor, Facility Planning, District Construction & Support Services (2016-Current)

Leanna Nolan, Classified Staff (2018-2019) Stephanie Yamoto, Classified Staff (2019) Simone Wolfe, Classified Staff (2019-Current)



# GOALS OF THE SUBSTAINABILITY PLAN

The Sustainable RSCCD 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.

# 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.

### **Vision Statement**

The Rancho Santiago Community College District holds sustainability to be a foundational principle in its current and future development. 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.

# 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 will 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.



# 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 (ASGSAC) advocates on behalf of students on issues that affect students and ensures a student voice in the decision-making processes of the college. The ASGSAC ensures that a variety of clubs and organizations are available for students to join and is committed to ensuring that students have a fun and eventful learning environment on campus. Also, ASGSAC hopes that all students have an opportunity to participate in extra and co-curricular activities and to enhance their college experience.

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, similarly to the Commissioner's responsibilities are 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. This project will launch for Earth Day in April 2021.

### Santiago Canyon College:



*Mission Statement:* The purpose of the Associated Student Government of Santiago Canyon College (hereafter referred to as "ASG") shall be to engage in student representation and involvement at Santiago Canyon College (hereafter referred to as "SCC") by safeguarding shared governance and democracy through the establishment of this Constitution; 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.

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, 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.



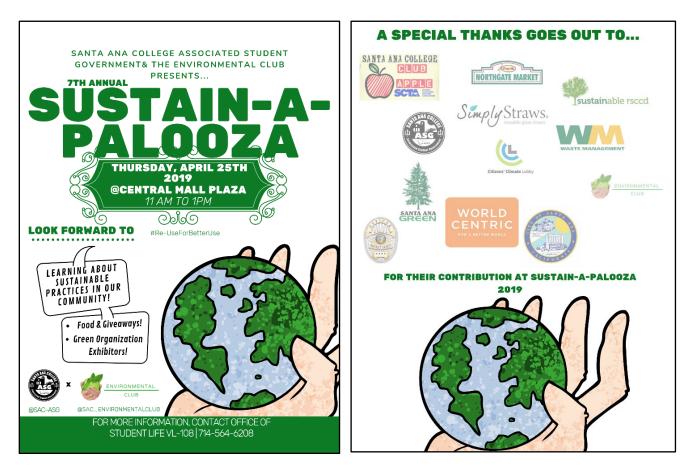
The position of Senator is an elected position. A Senator selected by the ASGSCC Vice President shall serve as the student representative to the Innovation and Sustainability Committee, which is responsible for making improvements to the campus. A Senator selected by the ASGSCC Vice President shall also serve as the student representative to the RSCCD Sustainability Committee. All Senators are mandated, but not limited to, attend the following required meetings: ASG Senate meetings and all assigned RSCCD and/or SCC governance committees. All Senators shall present a report from their respective meetings to their governing bodies.

### B. Sustainability Events

### Santa Ana College:

The College has hosted the 7<sup>th</sup> Annual Sustain-A-Palooza Earth Day event in 2019 which included the following activities:

- ASG engaged and encouraged the students into participating in the event by earning points for the Earth Day promotional items
- ASG promoted the bamboo utensils as a give-away to educate the participants on eliminating or reducing one time use and disposable products such as forks and spoons
- The District handed out plastic water bottles, stickers with the slogan "Reuse for Better Use" and updated campus maps that show the locations of hydration stations, bike racks and electric vehicle charging stations







### Santiago Canyon College:

The College has hosted the annual Earth Day festivities in 2019 which included the following activities:

- Food trucks
- Tesla vehicles display by owners who collective meets and organized to participated in this event
- STEM science displays and demonstrations
- The District handed out plastic water bottles, stickers with the slogan "Reuse for Better Use" and updated campus maps that show the locations of hydration stations, bike racks and electric vehicle charging stations









The colleges had planned to hold annual Earth Day events in April of 2020, but were unable due to the COVID-19 pandemic.



# 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:

Many of the water courses deal with and facilitate the inclusion of environmental sustainability and social responsibility (e.g. water conservation and water quality). However, the college is currently not developing any "new curricula" and career-oriented certificate and training courses with an emphasis on sustainability other than the existing Water Utility Science courses; California Water Resources, Water Conservation Practitioner, and Water Reclamation and Reuse that deal specifically with water sustainability and social responsibility.

CVC-OEI CTE Pathways Grant: \$500,000 grant that was used to improve the quality, visibility, and access to credit and noncredit online CTE classes. This grant was for 2019-2020 and was completed June 30, 2020.

### Santa Ana College:

No new updates were received for the college for this time period to report.

### C. Enhance Student Distance Learning

Temporary Remote Instruction (TRI) began March 22, 2020 due to the COVID-19 pandemic and both colleges offered remote learning classes.



# 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" (Sustainability Plan). 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 goal stated in the Sustainability Plan 2015 to reduce energy consumption by 5 % from baseline year (2012-13).
- Districtwide there has been an average reduction by 13% in electricity and 21% in gas over the last 5 years when compared to the baseline year.
- Districtwide there is a steady decrease in electricity usage, with 2019-20 being the largest decrease of about 24% compared to the baseline year. This is likely in part due to the pandemic and less use across facilities.
- Districtwide there has been a significant decrease in gas usage ranging between a decrease of 15% to 25% each year when compared to the baseline year.

### B. Conduct Comprehensive Facility Energy Audits

- Prepared 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 E (Electricity, Gas, and Water Consumption History FY2010-2020).
- 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

#### 1. 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 account; 2 meter	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 2010 to 2020 (Exhibit E) includes 13 active accounts, as well as 1 de-activated account that is no longer in use since September of 2017 (SAC site).

#### 2. 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	3 accounts; 3 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 2010 to 2020 (Exhibit E) includes 9 active accounts, as well as 1 de-activated account that is no longer in use since March of 2018 (OEC site).

### D. Energy Summary Account Details by SCE & SoCalGas

#### 1. Electricity:

SCE provided the detailed electricity usage history summary and it includes the following information:

- Customer's Name (for all sites, it is Rancho Santiago College)
- Customer Account Number
- Service Account Number
- Customer Service Account Number
- SIC Code
- Current Rate
- Meter Number
- Service Street Address
- City Name
- Zip Code
- Billing Month and Year
- Meter Read Date (this is the end date of service)
- Statement Rate
- Billed Amount
- Kwh Usage
- City Tax and State Tax
- Maximum Kw
- Billing Date
- 34 columns of a complete breakdown of Summer Peak vs Winter Peak

The detailed summary includes all 13 active accounts and site, address, customer service account number or service account number. For tracking and trending purposes, some of the information is extracted from the detailed summary.



2. Gas

The gas use history report is available on the SoCalGas on the website, which provides up to 25 months of billing history and it includes the following information:

- Date Mailed (billing statement)
- Billing Period; beginning date and end date (service period)
- Billed Days (number of days of service)
- Total of Therms
- Current Charges
- Total Amount Due

### E. Methodology for Maintaining and Monitoring Electricity and Gas Consumption

To track consumption/use history for each site and accounts, a separate spreadsheet has been developed by the District for both electricity and gas. Each spreadsheet tracks individual accounts with the history from 2010 to current (2020). The District continues to collect the data consumption history to generate trending reports and summarize the overall total use of each account.

The District has obtained copies of the electricity and gas billing statements for comparisons and verification of the reports. SoCalGas offers copies of the billing statement online and it is only limited to 25 months. Previous billing history prior to 2015 was from the actual billing statements obtained from the Accounts Payable Department.

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.

# F. Electricity and Gas Consumption Trends (See Exhibit E Electricity, Gas and Water Consumption History FY2010-2020)

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

1. 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.

2. 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.

### G. Recommendations to Improve Consumption Management

To improve and enhance the management of utility consumption at sites, the District and the Colleges need to 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 reach out to the campus and inquire 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.

### H. State Funding and Incentive Programs

- Proposition 39 is a state funded program offered to California K-12 and community colleges on projects as energy efficient by reducing the electricity usages by performance or by smart technology design.
- Leveraged State Scheduled Maintenance funding and Proposition 39 funding to complete multiple energy efficiency projects. See below summary of all Proposition 39 state funding. Year 5 was the last year of state funding for energy efficiency projects.

# **PROP 39 PROJECTS**

### Santa Ana College

SAC LED Lighting (Year 1) SAC LED Building I & Z (Year 3) SAC EMS Upgrade (Year 4)

### Santiago Canyon College

SCC Science Ctr Building RCx (Year 1) SCC LED Conversion Project (Year 2) SCC Building D Chiller Replacement (Year 3)

#### **District Office**

DO LED Conversion Project (Year 2) DMC & OCSRTA LED Project (Year 3) SAC, SCC, DMC & OCSRTA LED Project (Year 5)

# Summary by Year

	Expenses	State Allocation	Incentives
Year 1: 13/14	\$ 1,687,135.00	\$ 1,017,539.00	\$ 321,066.40
Year 2: 14/15	\$ 980,817.00	\$ 816,070.00	\$ 216,820.56
Year 3: 15/16	\$ 899,355.00	\$ 831,201.00	\$ 89,758.51
Year 4: 16/17	\$ 1,236,854.00	\$ 1,055,957.00	Zero
Year 5: 17/18	\$ 1,096,902.00	\$ 993,328.00	\$ 31,298.30
Totals	\$ 5,901,063.00	\$ 4,714,095.00	\$ 658,943.77



### Santa Ana College:

The Lighting Occupancy Sensor Retrofit project qualified as a Proposition 39 project by reducing electricity consumption in lighting use by 8 kilowatts per hour by annual. The installation of the lighting occupancy/vacancy sensors will automatically turn lights on when entering a space or off when leaving the space.



### Santiago Canyon College:

The U Portables HVAC Upgrades Phase 1 & Phase 2 projects qualified as a Proposition 39 project by replacing the existing HVAC system that was 15-20 years old with higher energy efficiency rated equipment, installing smart-technology thermostats, installing occupancy sensors to automatically shut off equipment, and installing new automatic outside air economizers to provide reduce cooling energy costs during optimal weather conditions. This created energy savings demand by 1.2 kilowatts per hour on an annual basis.







# District Office:

• District Office replaced the existing failing boiler with a new high efficiency boiler to provide heat to the building.





# GOAL 4: FACILITIES DESIGN & OPERATION

### **Goal Description**

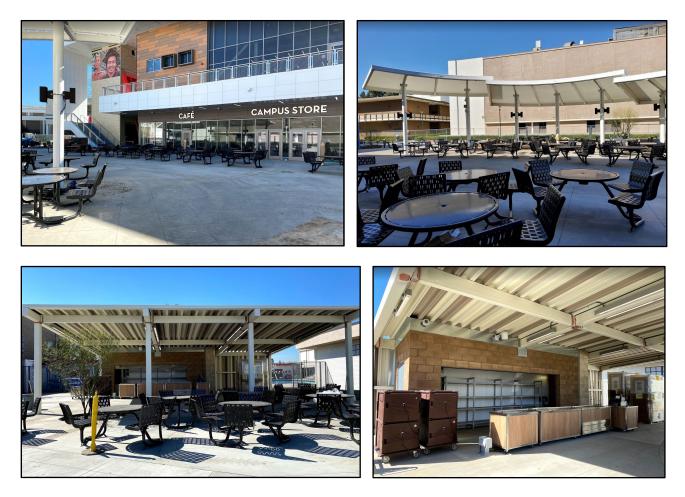
Design and construct all major capital projects and renovations to meet LEED Silver "equivalent" standard and operate facilities to meet solid waste, energy, and water use reduction goals. Employ sustainable landscaping practices.

### ACHIEVEMENTS:

### A. Facilities Design

### Santa Ana College:

• The Johnson Student Center building is designed to meet Leadership in Energy and Environmental Design (LEED) Silver equivalence by United States Green Building Council. The project is still under construction and is anticipated to be complete this spring/summer for a Fall Semester 2021 opening. 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.





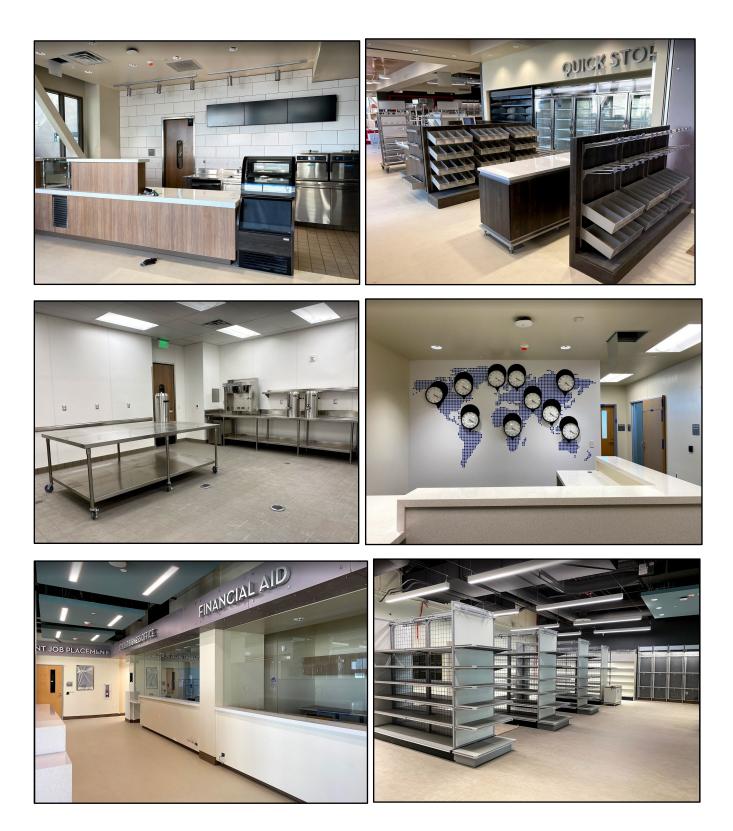






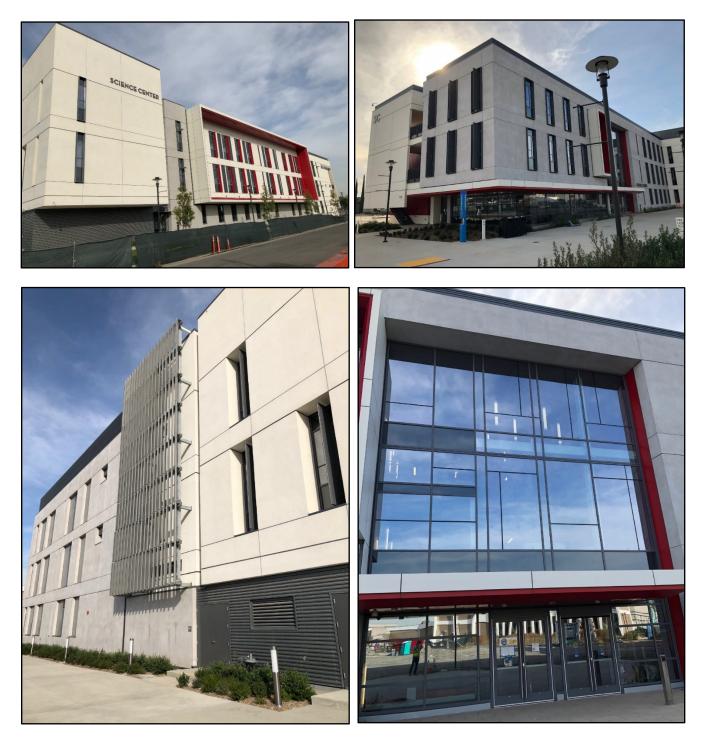
Rancho Santiago Community College District Sustainability Plan Report 2018-21 Page **19** of **35** 







• The Science Center building is designed to meet Leadership in Energy and Environmental Design (LEED) Silver equivalence by United States Green Building Council. The project has been delayed and is still under construction to correct a window sealant adhesion problem and is anticipated to be complete in the summer of 2021. 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 has just begun construction in March 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.





# 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 was selected as the new waste hauler for the District.
- The diversion report for the 2019 calendar year showed the total tonnage was 929.88 tons (525.84 trash / 183.36 recycling / 220.68 organics).
- The diversion report for the 2020 calendar year showed the total tonnage was 897.38 tons (489.03 trash / 177.32 recycling / 231.03 organics).

### Santiago Canyon College:

• Drinking fountains and hydration stations were installed in Buildings D, G, and H to help reduce plastic water bottle consumption. Electric hand dryers were installed in Buildings D, E, G, H, L, SC, T and Concession Stand to help reduce paper towel consumption.





# 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

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

### **District Operations Center:**

• One Toyota Prius (2013)

### Santa Ana College:

- One Toyota Prius (2013)
- Two Toyota Prius (2016)
- One Ford Hybrid Interceptor (2020)

### Santiago Canyon College:

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



# E. Encourage Electric Vehicles (EV) for Commuters

### 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.
- Currently, in Parking Lot 11 there is one electric charging station servicing two stalls.
- Future installation plans in Parking lot 11, includes two electric charging stations servicing four stalls.
- At the completion of the new Health Sciences building, there will be three electric charging stations servicing five stalls, one of which is accessible (Parking Lot 6).



# Santiago Canyon College:

• The new Safety and Security Building has two electric charging stations servicing four stalls, one of which is accessible (Parking Lot 6).





# 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

- California was in a severe drought from 2012 to 2015 and a statewide mandate for water conservation was implemented in 2015. Governor Brown's 2015 Executive Order and subsequent State Water Resources Control Board (SWRCB) drought regulations require the District to conserve water.
- 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 5% reduction water use goal.
- Districtwide there has been a reduction by 28% over the last 5 years in comparison to the baseline year.
- In response to the drought period in 2014-15, Districtwide various water conservation measures were implemented such as: posting signs regarding awareness in water use reduction; reducing irrigation to landscaping in some sites; and installing low-flow water toilets and faucets in some sites.
- Districtwide there was a significant reduction in water usage since 2014.

### 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 E-Electricity, Gas and Water Consumption History FY2010-2020).
- 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



- The water consumption summary 2010 to 2020 (Exhibit E) includes 25 active accounts, as well as 1 account that was in-activated for Santiago Canyon College in January 2011.
- 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

- 1. 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 12 months.
- Billing statement is available to download.
- Bills from 2015 to current were downloaded.
- 2. Irvine Ranch Water District
- Services to Orange County Regional Sheriff's Regional Training Academy
- Bills available online for 13 months.
- Billing statement is available to download.
- Bills from 2015 to current were downloaded.
- 3. City of Orange
- Services to Santiago Canyon College and Orange Education Center
- Bills are available online for 8 months.
- Billing statement is available to download.
- Bills from 2015 to current were downloaded.

Note, all three water utility agencies do not offer the capability to export the water usage history in Microsoft Excel format, all collected data was entered manually into spreadsheets created 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.

- 1. Campus or other building operators should notify the District when a leak occurs and note the duration.
- 2. The District office can inform the Colleges of spikes in the water billing statement, which may lead to investigation of unknown irrigation leaks.
- 3. 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.

### District Office:

Repaired irrigation system and removed the landscaping material to reduce water usage.

### Santa Ana College:

- Planning and scoping the installation of smart irrigation controls on campus are part of the District's Scheduled Maintenance projects.
- Phase 2 to replace an additional 14 controllers is in planning.
- Additional landscaping and hardscape projects are in planning.

### Santiago Canyon College:

• East Chapman Entry Repairs included planting new California, drought tolerant, native plants that are low maintenance and reduce water consumption as well as to prevent storm water runoff. The existing irrigation leaked and caused soil erosion. All of the irrigation on the entire slope was repaired.





Rancho Santiago Community College District Sustainability Plan Report 2018-21 Page **30** of **35** 



### 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 will be tied into the existing campus retention basin to manage storm water runoff.

### J. Adopt Sustainable Landscaping Practices

### Districtwide:

- The District updated and reviewed landscape material design standards 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.

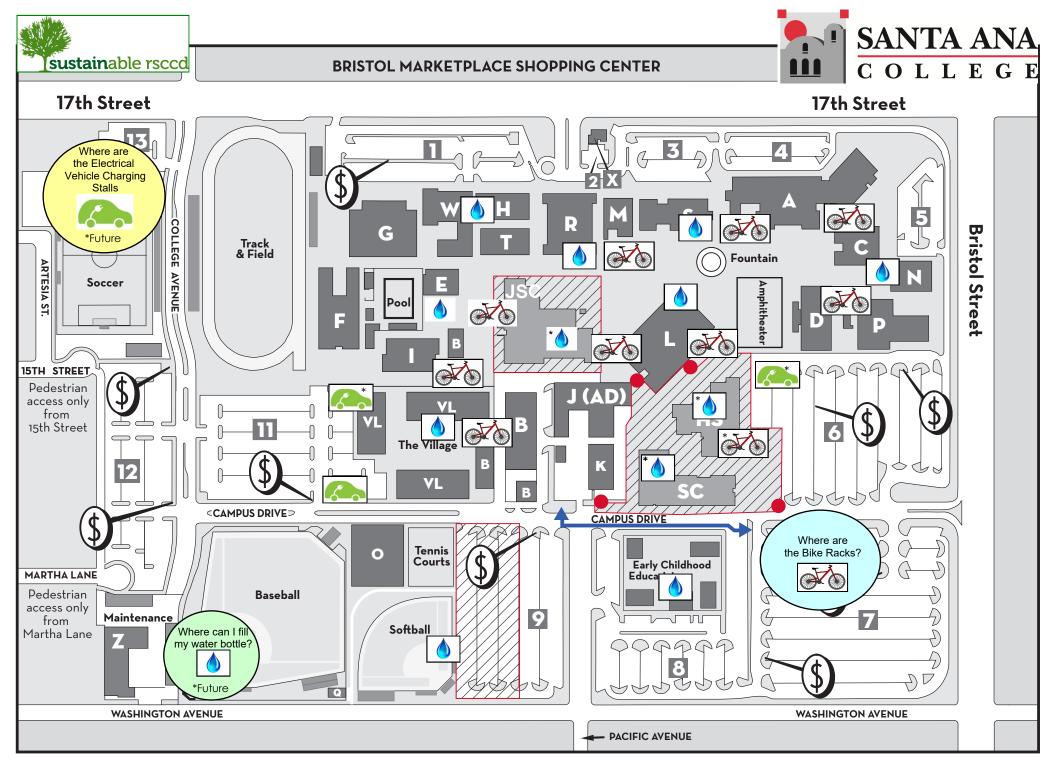
The District, and each individual who represents the District, shall provide access to its services, classes, and programs without regard to national origin, religion, age, gender, gender identity, gender expression, race or ethnicity, color, medical condition, genetic information, ancestry, sexual orientation, 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.



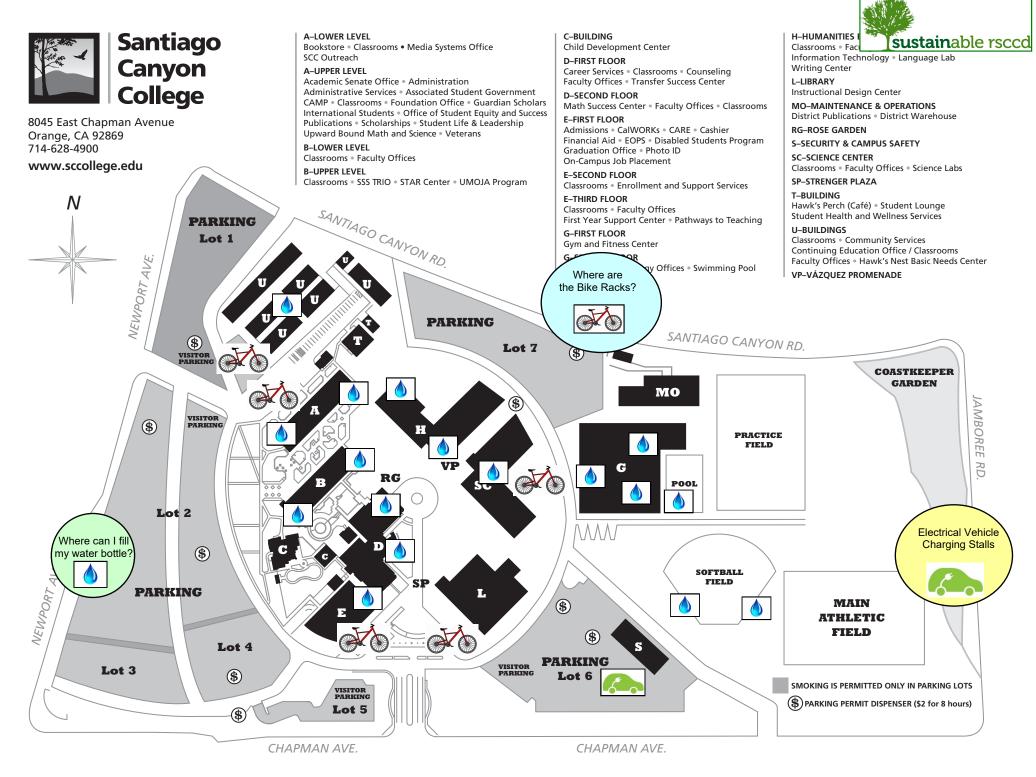
# *EXHIBIT A Santa Ana College Bicycle Racks and Hydration Stations Location Map*





## EXHIBIT B

# Santiago Canyon College Bicycle Racks and Hydration Stations Location Map





## EXHIBIT C

## Electricity, Gas and Water Consumption History FY 2010-2020

### SUMMARY OF UTILITY USE PER SITE BY FISCAL YEAR

			2012-13							
Sites	2010-11	2011-12	(Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
District Operations Center	2,080,188	2,172,192	1,977,160	1,875,984	1,831,900	1,438,404	1,674,024	2,093,652	1,543,124	1,460,844
Santa Ana College	33,998,096	30,550,564	35,758,140	36,499,408	31,588,788	27,594,468	27,079,096	35,137,300	25,981,780	24,680,260
Centennial Education Center	1,485,528	1,408,484	1,329,944	1,442,892	1,376,320	1,415,964	1,281,324	1,207,272	1,258,136	969,408
Digital Media Center	496,672	691,152	417,384	401,676	565,488	332,112	257,312	395,692	466,004	412,896
Orange County Sheriff's Regional Training										
Academy	2,168,452	2,383,128	1,828,860	2,047,276	2,126,564	1,415,216	1,244,672	845,988	1,295,536	2,427,260
Santiago Canyon College	26,375,707	26,145,133	37,986,432	41,012,840	32,291,908	20,534,096	22,499,092	29,388,172	26,468,728	26,122,404
Orange Education Center	1,500,488	1,543,124	1,414,468	742,016	878,900	373,252	1,040,468	963,424	130,900	5,984
Districtwide	68,105,131	64,893,777	80,712,388	84,022,092	70,659,868	53,103,512	55,075,988	70,031,500	57,144,208	56,079,056

### Water Use by Gallons per Site by Fiscal Year

### Natural Gas Use by Therms Per Site by Fiscal Year

			2012-13							
Sites	2010-11	2011-12	(Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
District Operations Center	10,474	10,880	7,303	8,360	5,331	7,347	11,016	14,738	15,238	11,668
Santa Ana College	151,727	162,059	141,777	125,931	104,654	111,837	122,283	138,617	141,208	134,050
Centennial Education Center	2,725	3,200	2,939	2,134	1,790	2,029	2,055	1,702	2,165	2,172
Digital Media Center	8,013	2,912	3,602	3,489	3,308	3,420	6,389	3,127	311	1,795
Orange County Sheriff's Regional Training										
Academy	13,324	12,793	7,037	6,195	3,004	4,377	4,210	6,831	6,292	6,480
Santiago Canyon College	61,231	73,264	157,181	142,773	105,172	114,745	112,475	101,996	117,376	98,163
Orange Education Center	14,086	12,802	10,426	6,886	210	1,138	187	34	0	0
Districtwide	261,580	277,910	330,265	295,768	223,469	244,893	258,615	267,045	282,590	254,328

### Electricity Use by Kilowatts Per Site by Fiscal Year

			2012-13							
Sites	2010-11	2011-12	(Baseline)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
District Operations Center	1,302,385	1,208,298	1,222,424	1,379,409	1,125,280	847,325	865,735	883,893	856,975	825,599
Santa Ana College	8,991,583	8,487,114	8,669,762	8,722,061	8,140,174	8,166,950	8,244,453	8,460,769	7,333,808	7,007,845
Centennial Education Center	699,234	700,901	680,089	659,451	644,109	624,532	605,279	622,904	619,319	513,996
Digital Media Center	731,256	466,222	492,034	508,408	528,452	529,502	529,429	428,529	400,392	392,792
Orange County Sheriff's Regional Training										
Academy	751,765	773,334	823,648	889,446	936,498	876,507	785,915	725,676	703,366	695,604
Santiago Canyon College	3,345,127	3,589,063	4,991,821	4,895,855	5,520,082	5,072,556	5,153,590	4,747,751	4,185,125	3,837,760
Orange Education Center	1,062,580	1,034,058	780,722	514,535	444,519	427,247	351,542	235,468	245,102	112,303
Districtwide	16,883,930	16,258,990	17,660,500	17,569,165	17,339,114	16,544,619	16,535,943	16,104,990	14,344,087	13,385,899

Note: 2012-13 Baseline Year established per Sustainability Plan \*Updated based on available information as of 2/9/2021 (subject to change)

### PERCENTAGE CHANGE: FISCAL YEAR TO BASELINE YEAR

### Water Use Percent Change by Fiscal Year Compared to Baseline Year

						Five Year
Sites	2015-16	2016-17	2017-18	2018-19	2019-20	Average %
District Operations Center	-27.25%	-15.33%	5.89%	-21.95%	-26.11%	-16.95%
Santa Ana College	-22.83%	-24.27%	-1.74%	-27.34%	-30.98%	-21.43%
Centennial Education Center	6.47%	-3.66%	-9.22%	-5.40%	-27.11%	-7.78%
Digital Media Center	-20.43%	-38.35%	-5.20%	11.65%	-1.08%	-10.68%
Orange County Sheriff's Regional Training						
Academy	-22.62%	-31.94%	-53.74%	-29.16%	32.72%	-20.95%
Santiago Canyon College	-45.94%	-40.77%	-22.64%	-30.32%	-31.23%	-34.18%
Orange Education Center	-73.61%	-26.44%	-31.89%	-90.75%	-99.58%	-64.45%
Districtwide	-34.21%	-31.76%	-13.23%	-29.20%	-30.52%	-27.78%

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

						Five Year
Sites	2015-16	2016-17	2017-18	2018-19	2019-20	Average %
District Operations Center	0.60%	50.84%	101.81%	108.65%	59.77%	64.34%
Santa Ana College	-21.12%	-13.75%	-2.23%	-0.40%	-5.45%	-8.59%
Centennial Education Center	-30.96%	-30.08%	-42.09%	-26.34%	-26.10%	-31.11%
Digital Media Center	-5.05%	77.37%	-13.19%	-91.37%	-50.17%	-16.48%
Orange County Sheriff's Regional Training						
Academy	-37.80%	-40.17%	-2.93%	-10.59%	-7.92%	-19.88%
Santiago Canyon College	-27.00%	-28.44%	-35.11%	-25.32%	-37.55%	-30.68%
Orange Education Center	-89.08%	-98.21%	-99.67%	-100.00%	-100.00%	-97.39%
Districtwide	-25.85%	-21.69%	-19.14%	-14.44%	-22.99%	-20.82%

### Electricity Use Percent Change by Fiscal Year Compared to Baseline Year

						Five Year
Sites	2015-16	2016-17	2017-18	2018-19	2019-20	Average %
District Operations Center	-30.68%	-29.18%	-27.69%	-29.90%	-32.46%	-29.98%
Santa Ana College	-5.80%	-4.91%	-2.41%	-15.41%	-19.17%	-9.54%
Centennial Education Center	-8.17%	-11.00%	-8.41%	-8.94%	-24.42%	-12.19%
Digital Media Center	7.61%	7.60%	-12.91%	-18.63%	-20.17%	-7.30%
Orange County Sheriff's Regional Training						
Academy	6.42%	-4.58%	-11.89%	-14.60%	-15.55%	-8.04%
Santiago Canyon College	1.62%	3.24%	-4.89%	-16.16%	-23.12%	-7.86%
Orange Education Center	-45.28%	-54.97%	-69.84%	-68.61%	-85.62%	-64.86%
Districtwide	-6.32%	-6.37%	-8.81%	-18.78%	-24.20%	-12.90%

\*Updated based on available information as of 2/9/21 (subject to change)

## PERCENTAGE CHANGE: YEAR TO YEAR

### Water Use Percent Change by Fiscal Year Compared to Previous Year

						Five Year
Sites	2015-16	2016-17	2017-18	2018-19	2019-20	Average %
District Operations Center	-21.48%	16.38%	25.07%	-26.30%	-5.33%	-2.33%
Santa Ana College	-12.64%	-1.87%	29.76%	-26.06%	-5.01%	-3.16%
Centennial Education Center	2.88%	-9.51%	-5.78%	4.21%	-22.95%	-6.23%
Digital Media Center	-41.27%	-22.52%	53.78%	17.77%	-11.40%	-0.73%
Orange County Sheriff's Regional Training						
Academy	-33.45%	-12.05%	-32.03%	53.14%	87.36%	12.59%
Santiago Canyon College	-36.41%	9.57%	30.62%	-9.93%	-1.31%	-1.49%
Orange Education Center	-57.53%	178.76%	-7.40%	-86.41%	-95.43%	-13.60%
Districtwide	-24.85%	3.71%	27.15%	-18.40%	-1.86%	-2.85%

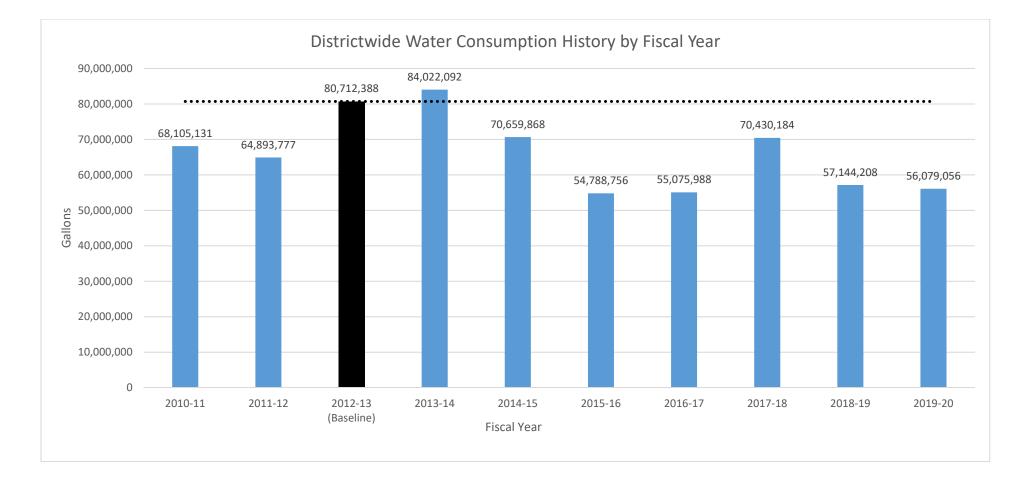
### Natural Gas Use Percent Change by Fiscal Year Compared to Previous Year

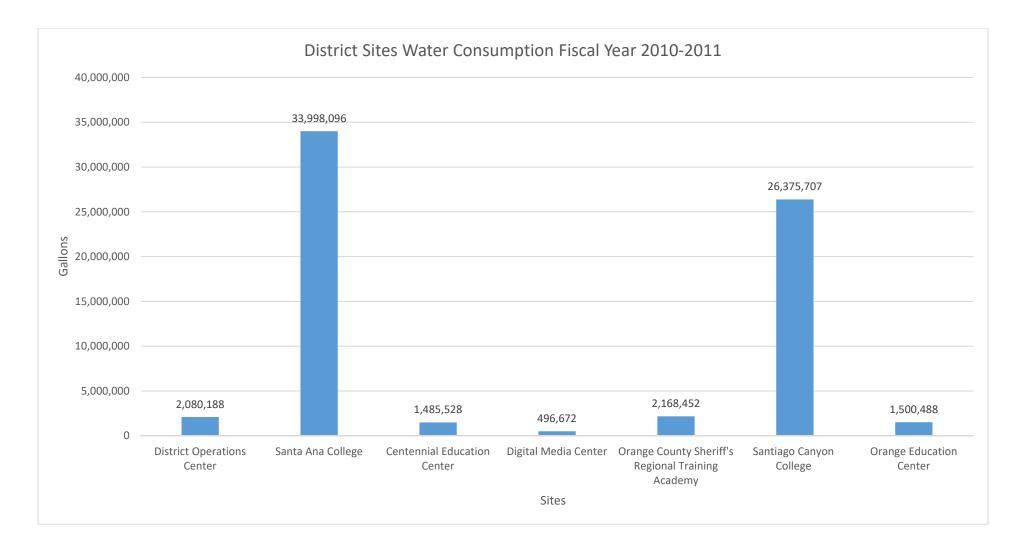
						Five Year
Sites	2015-16	2016-17	2017-18	2018-19	2019-20	Average %
District Operations Center	37.82%	49.94%	33.79%	3.39%	-23.43%	20.30%
Santa Ana College	6.86%	9.34%	13.36%	1.87%	-5.07%	5.27%
Centennial Education Center	13.35%	1.28%	-17.18%	27.20%	0.32%	5.00%
Digital Media Center	3.39%	86.81%	-51.06%	-90.05%	477.17%	85.25%
Orange County Sheriff's Regional Training						
Academy	45.71%	-3.82%	62.26%	-7.89%	2.99%	19.85%
Santiago Canyon College	9.10%	-1.98%	-9.32%	15.08%	-16.37%	-0.70%
Orange Education Center	441.90%	-83.57%	-81.82%	-100.00%	0.00%	35.30%
Districtwide	9.59%	5.60%	3.26%	5.82%	-10.00%	2.85%

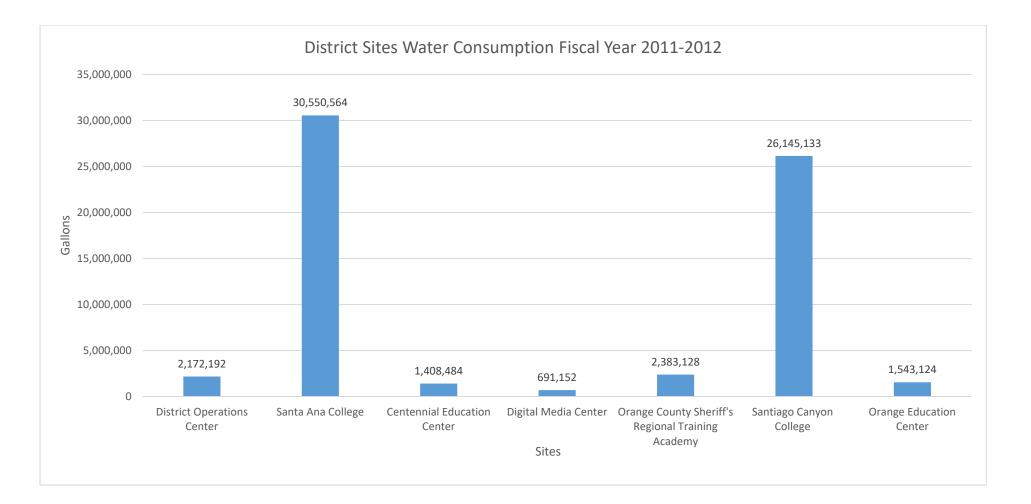
### Electricity Use Percent Change by Fiscal Year Compared to Previous Year

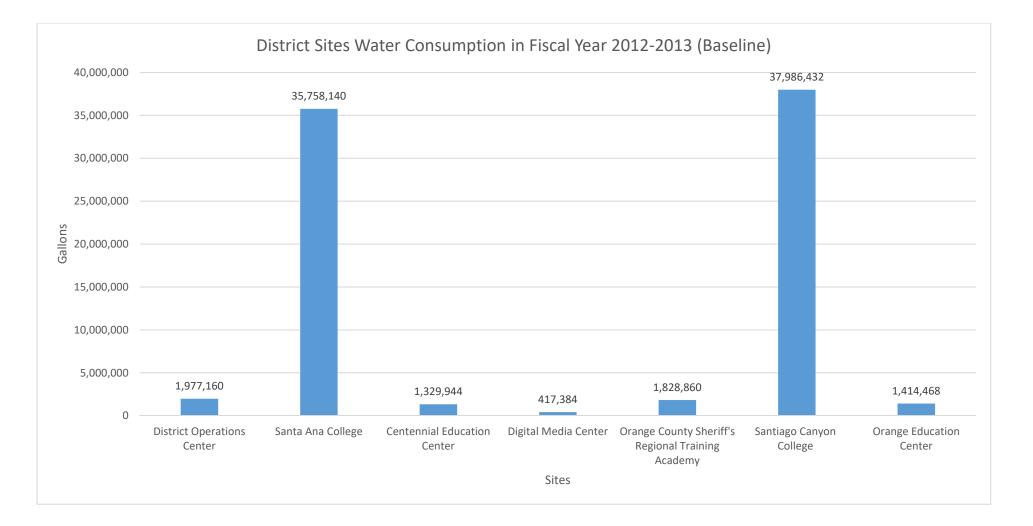
						Five Year
Sites	2015-16	2016-17	2017-18	2018-19	2019-20	Average %
District Operations Center	-24.70%	2.17%	2.10%	-3.05%	-3.66%	-5.43%
Santa Ana College	0.33%	0.95%	2.62%	-13.32%	-4.44%	-2.77%
Centennial Education Center	-3.04%	-3.08%	2.91%	-0.58%	-17.01%	-4.16%
Digital Media Center	0.20%	-0.01%	-19.06%	-6.57%	-1.90%	-5.47%
Orange County Sheriff's Regional Training						
Academy	-6.41%	-10.34%	-7.66%	-3.07%	-1.10%	-5.72%
Santiago Canyon College	-8.11%	1.60%	-7.87%	-11.85%	-8.30%	-6.91%
Orange Education Center	-3.89%	-17.72%	-33.02%	4.09%	-54.18%	-20.94%
Districtwide	-4.58%	-0.05%	-2.61%	-10.93%	-6.68%	-4.97%

\*Updated based on available information as of 2/9/21 (subject to change)

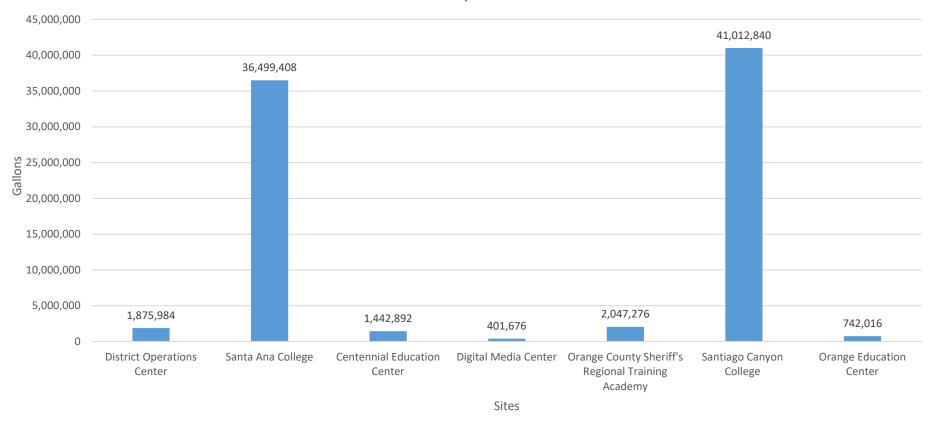


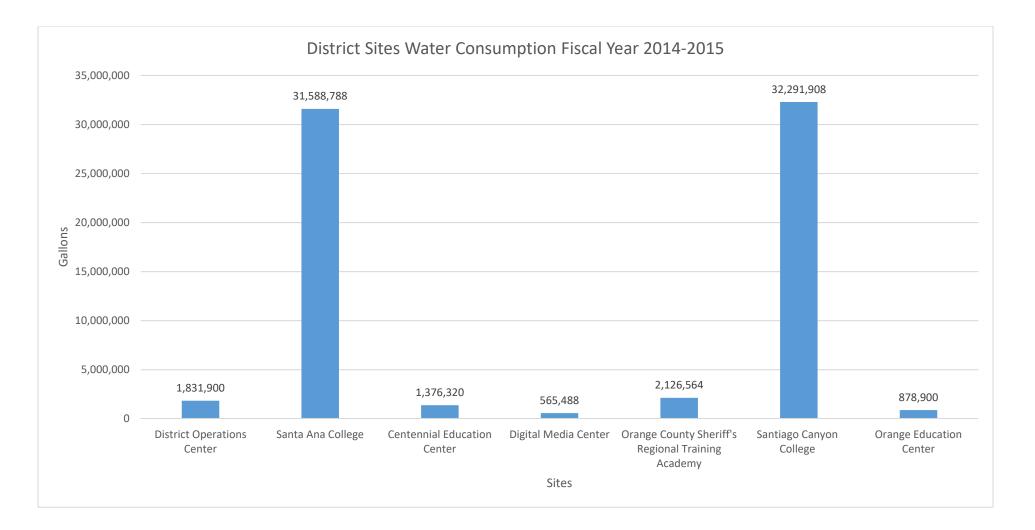


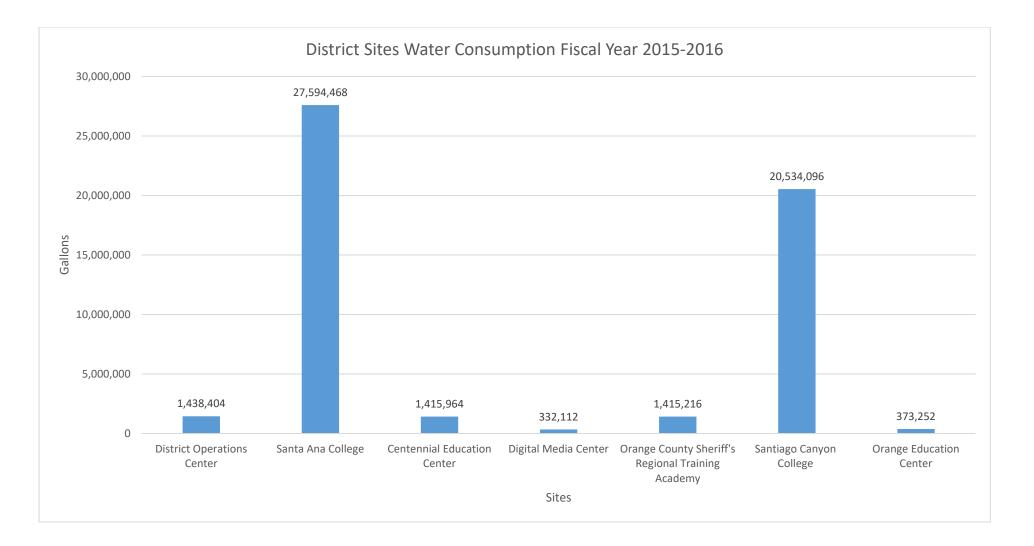


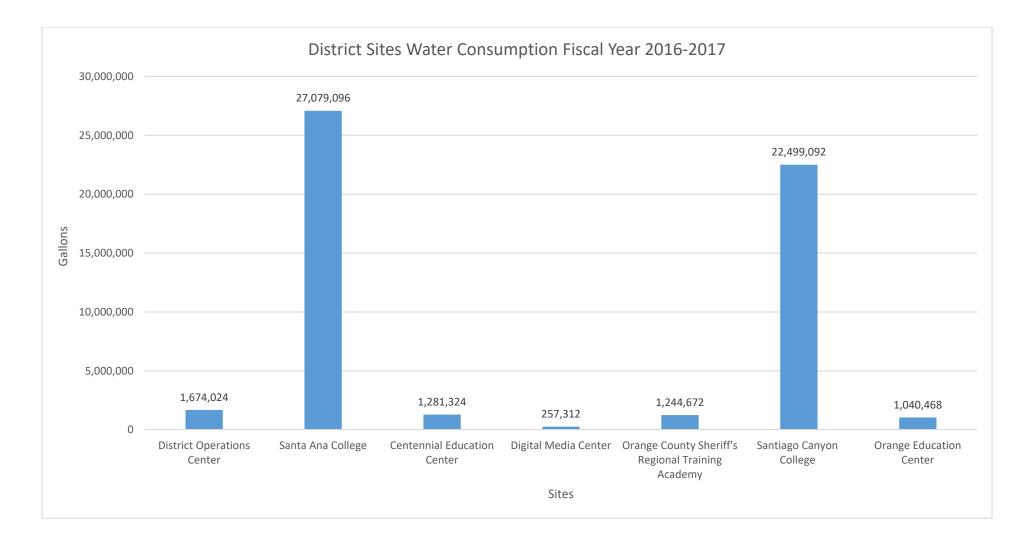


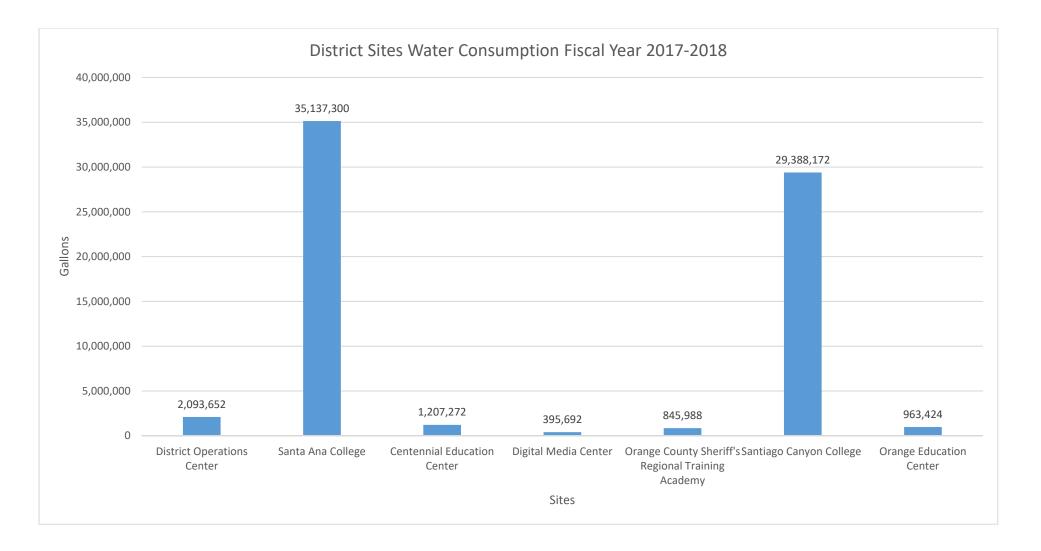
### District Sites Water Consumption Fiscal Year 2013-2014

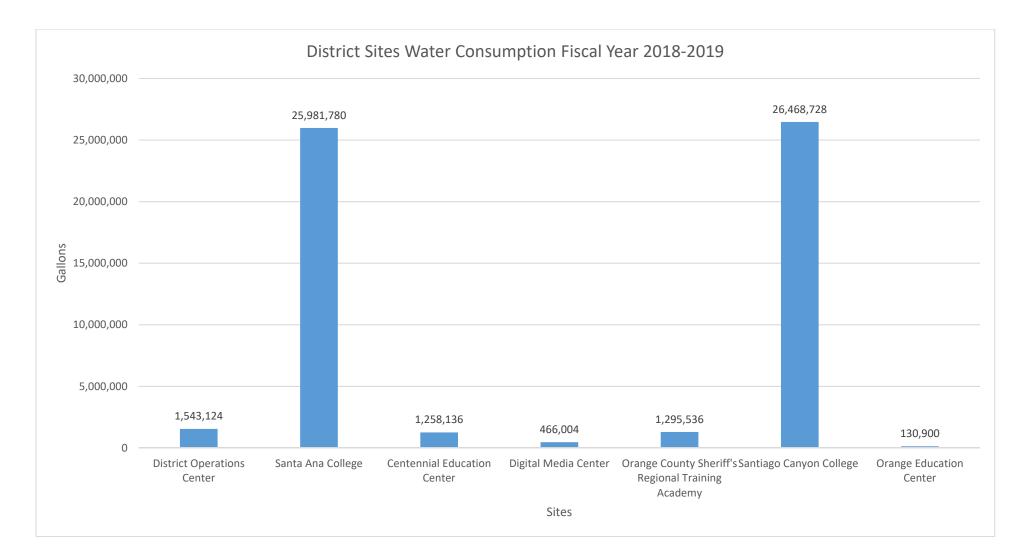


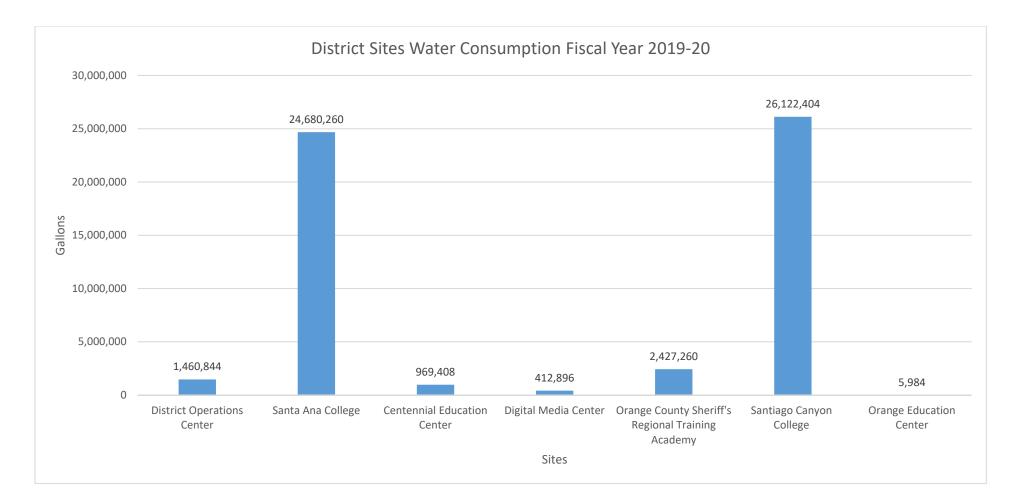


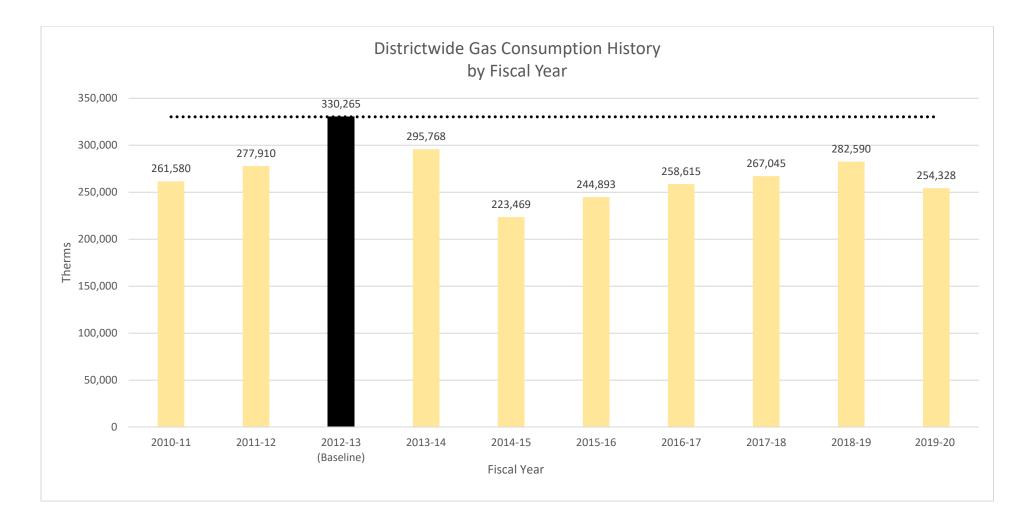


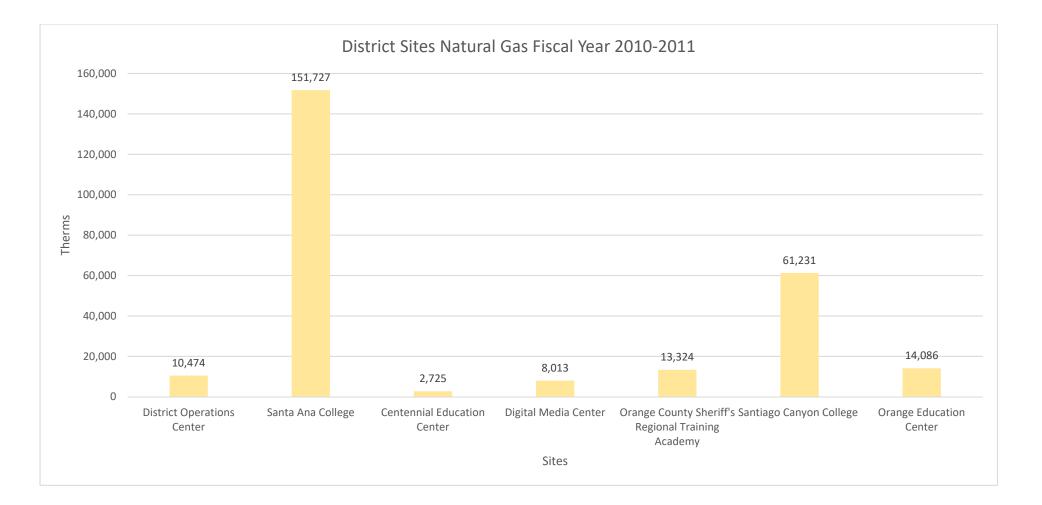


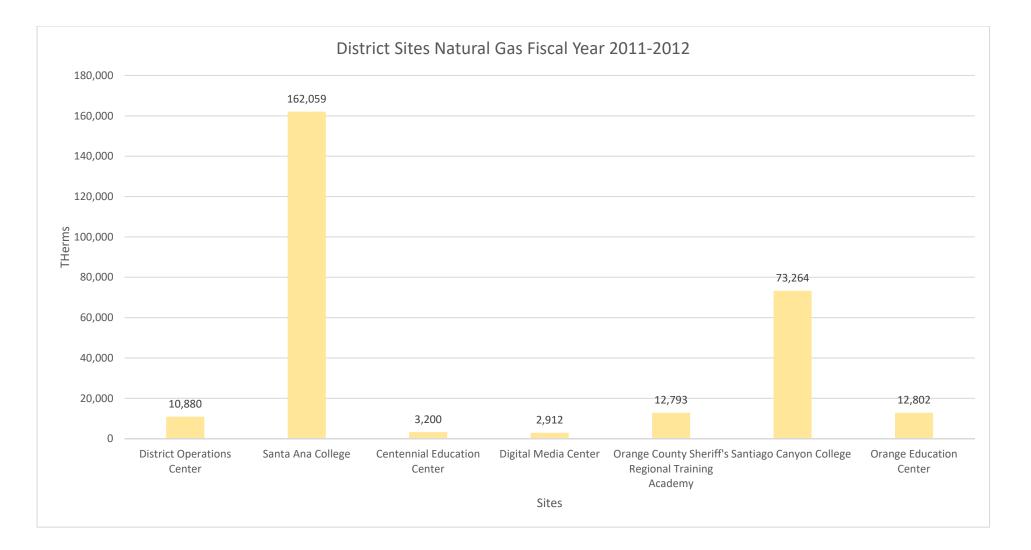


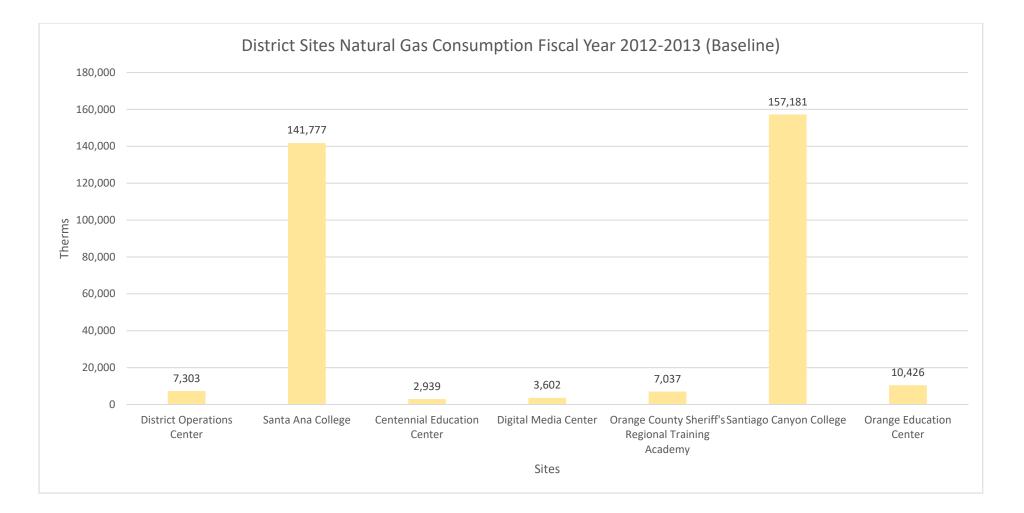


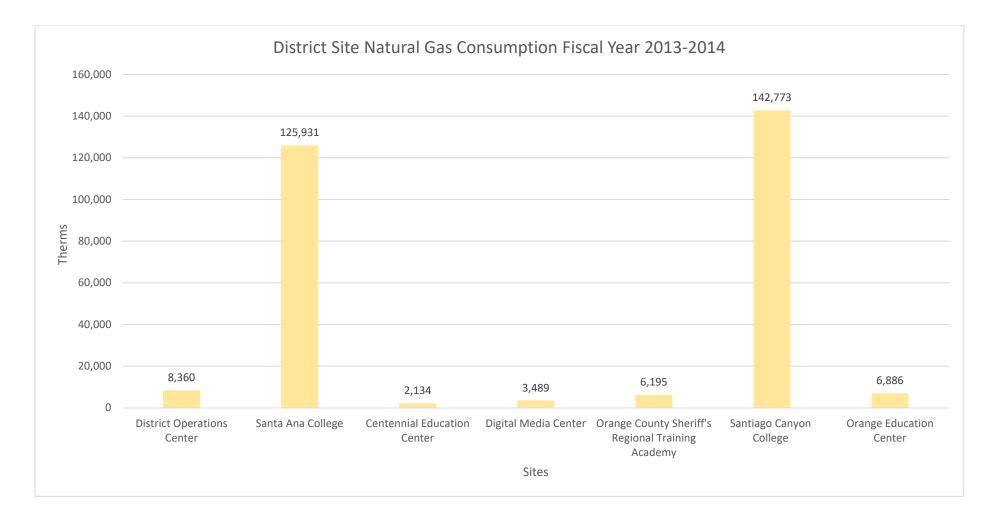


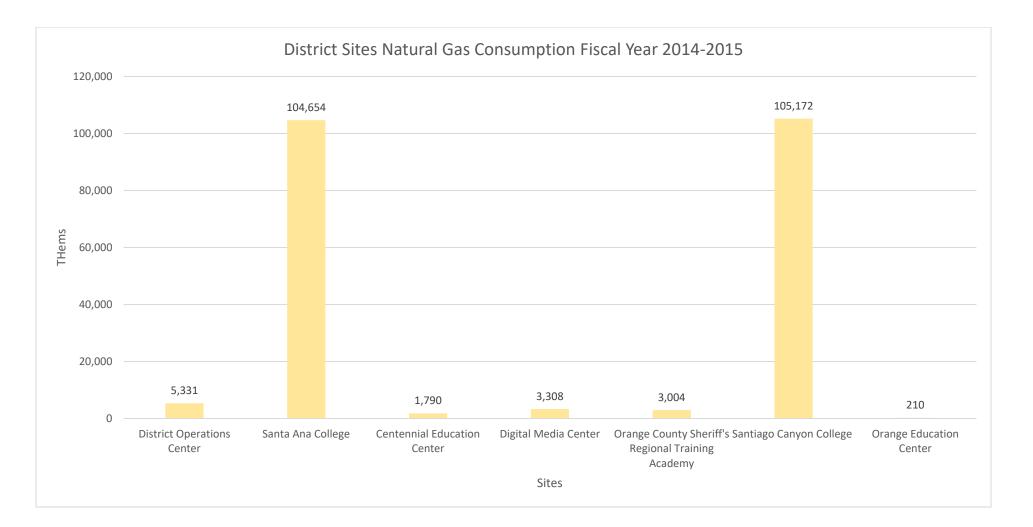


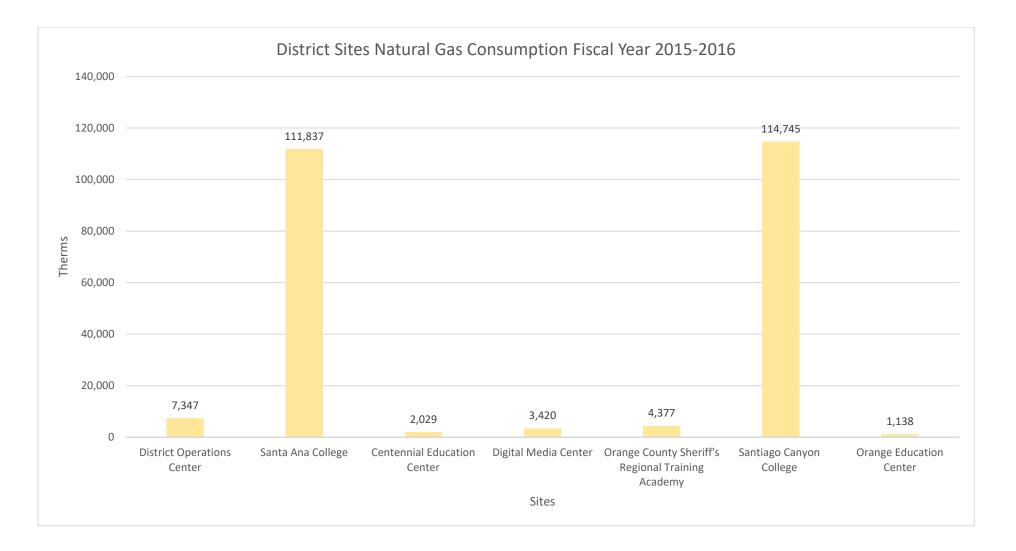


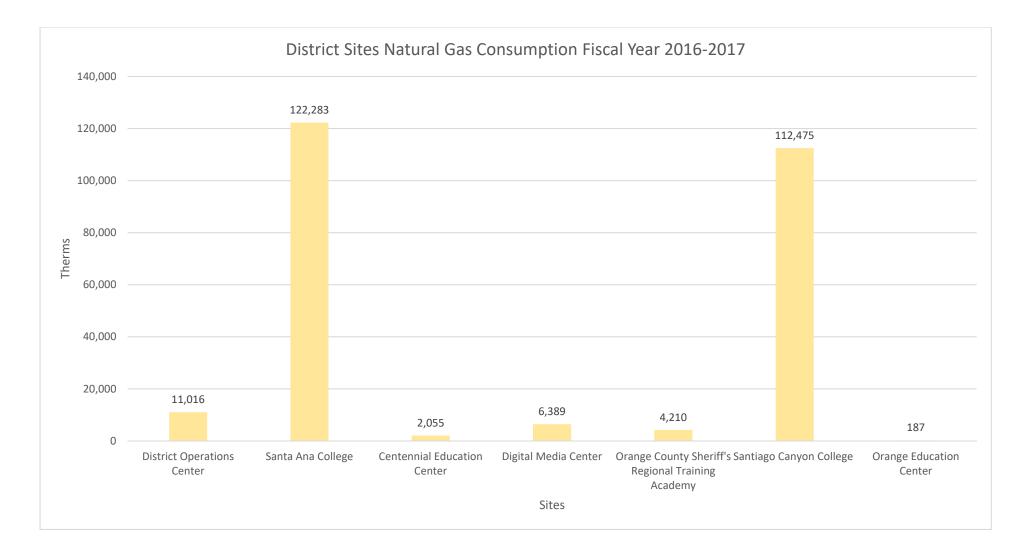


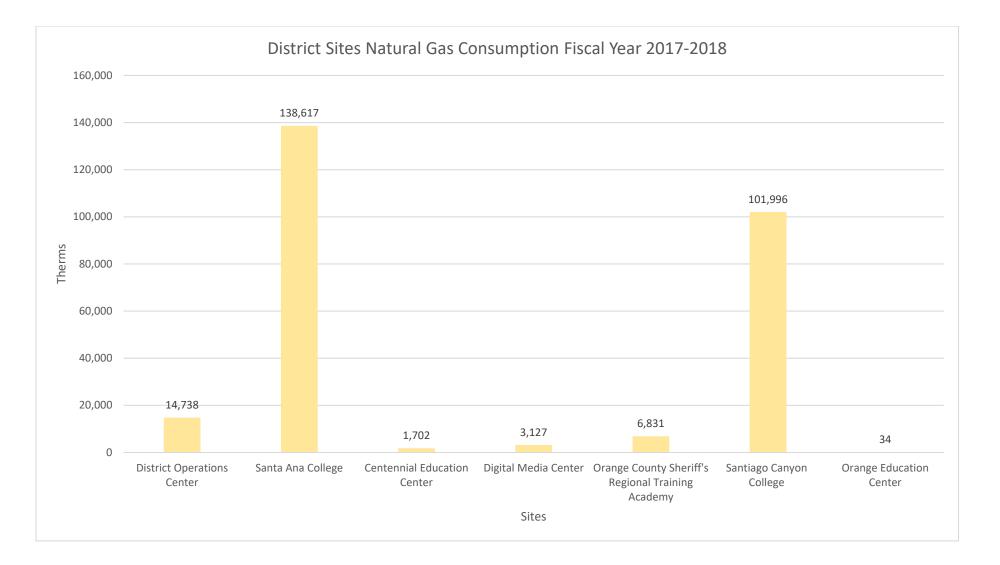


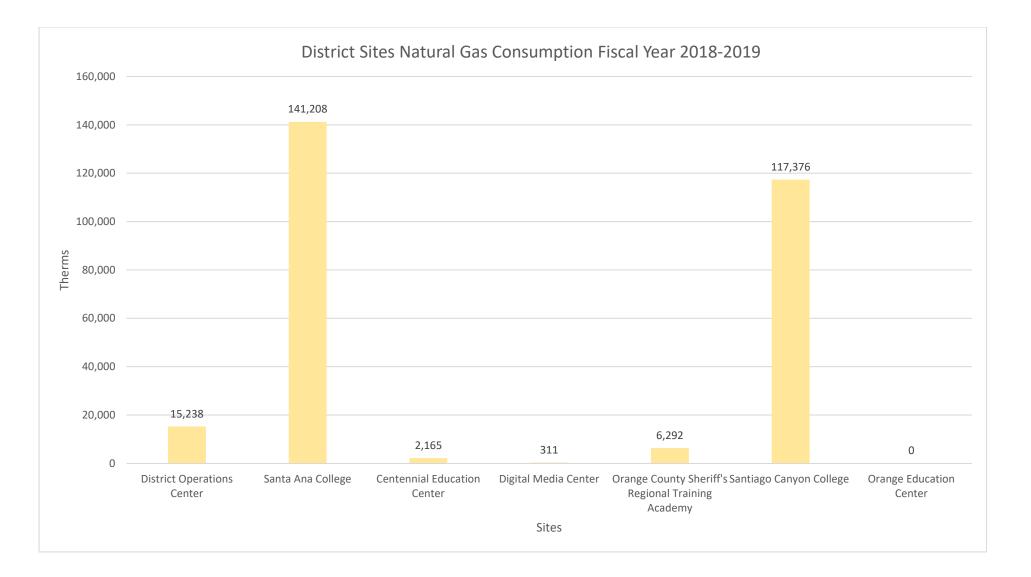


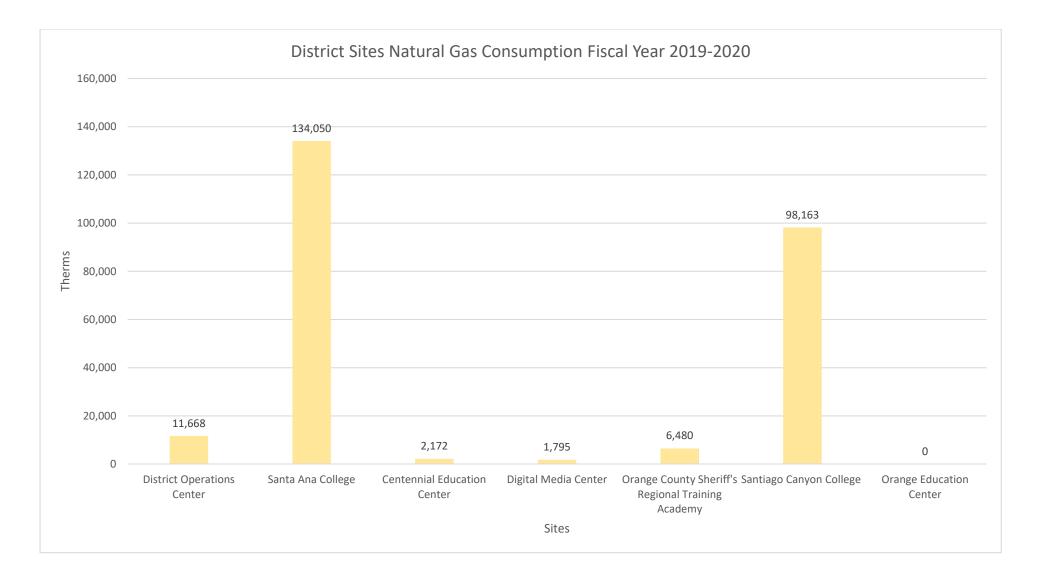


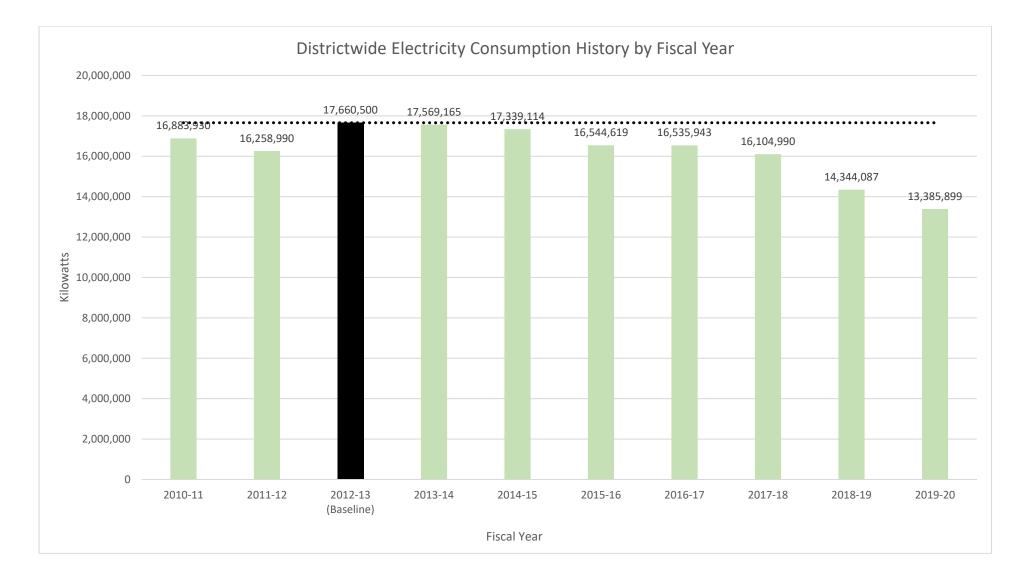


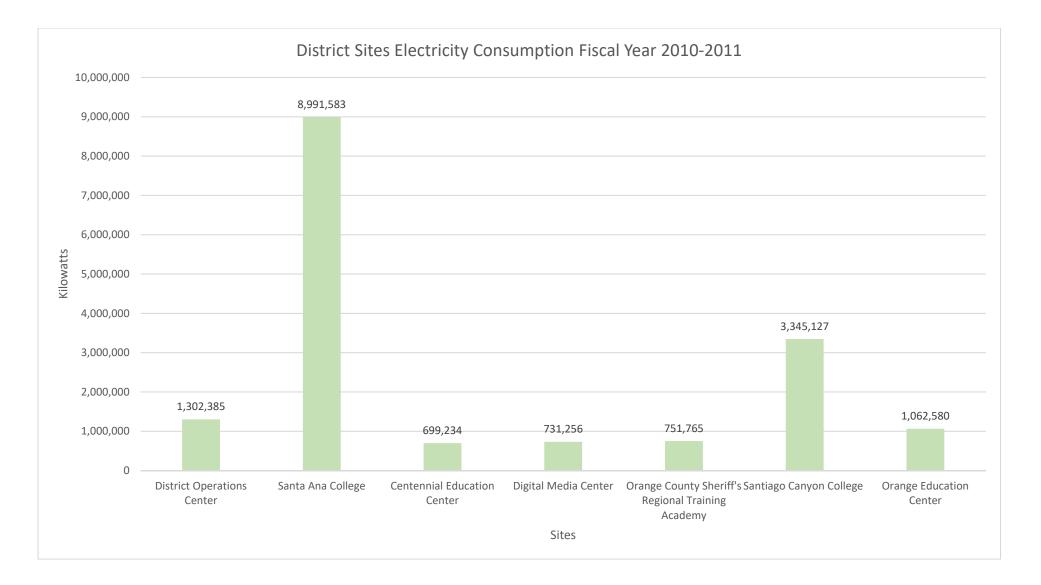


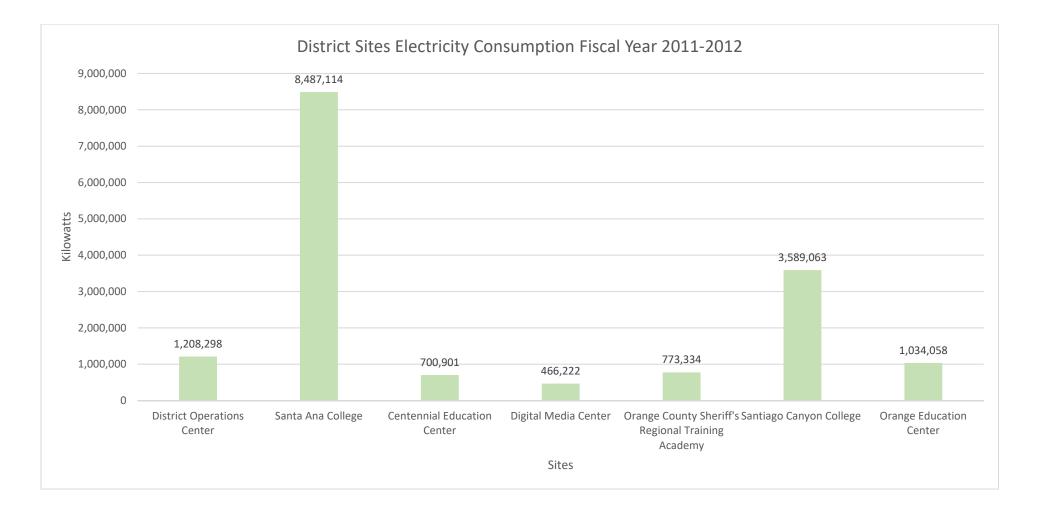


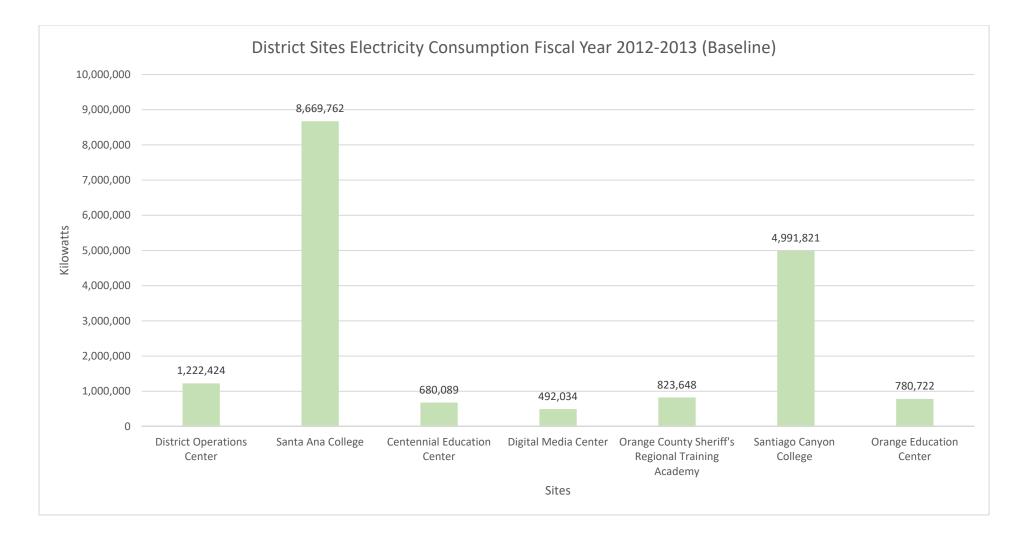


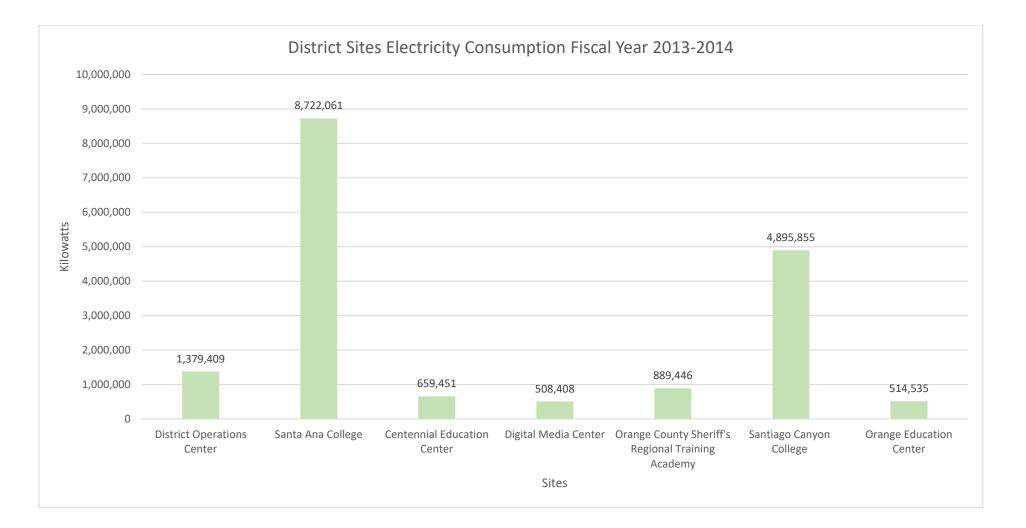


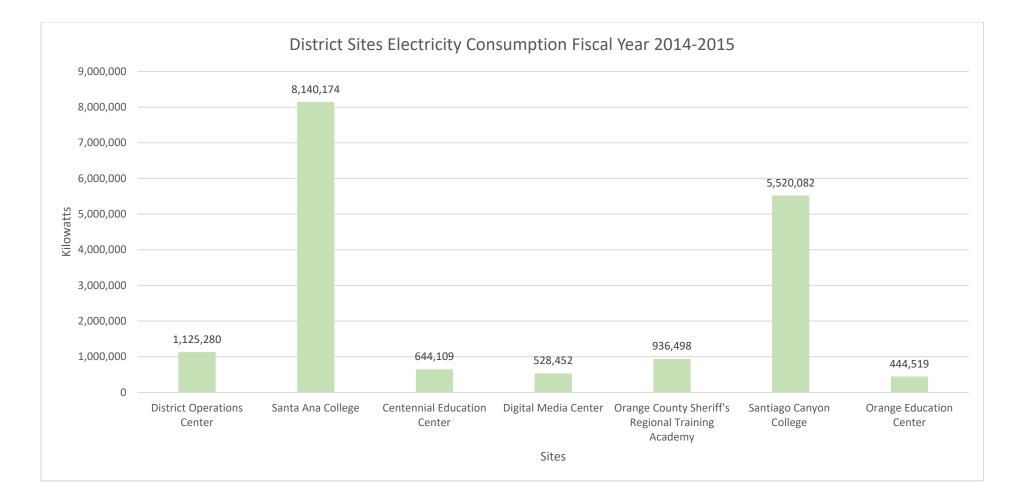


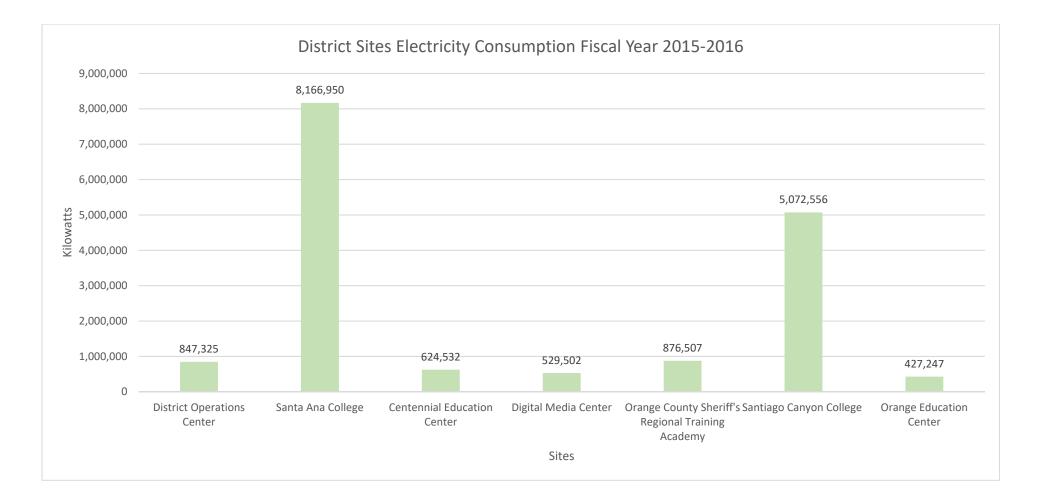


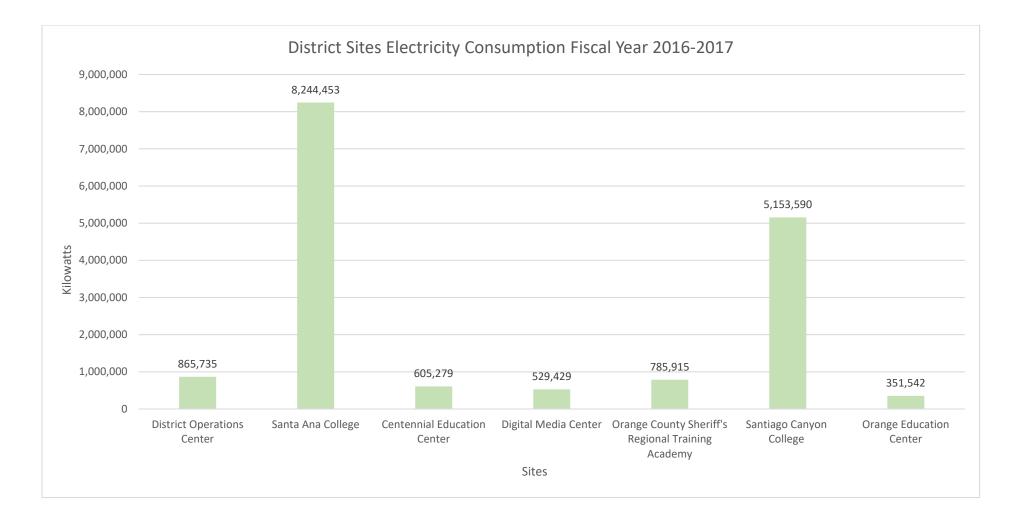


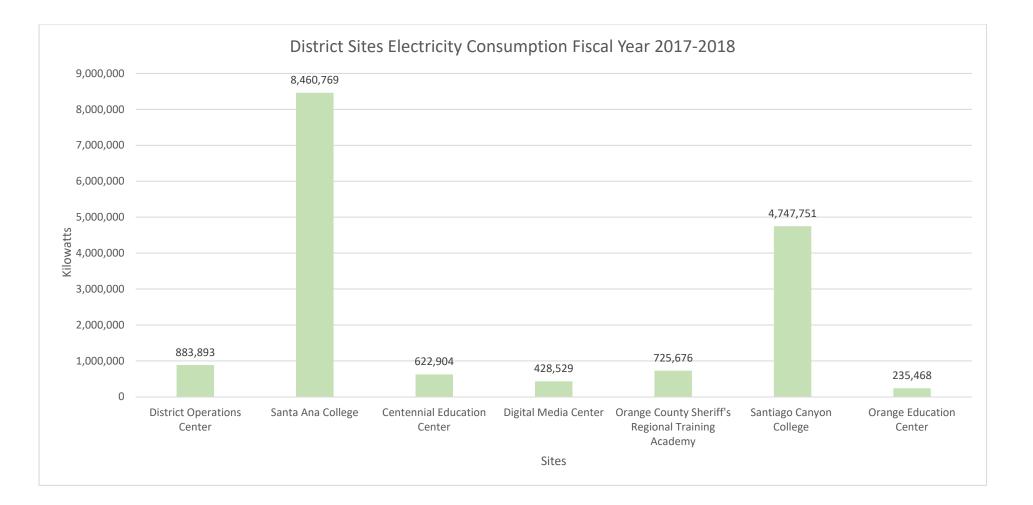


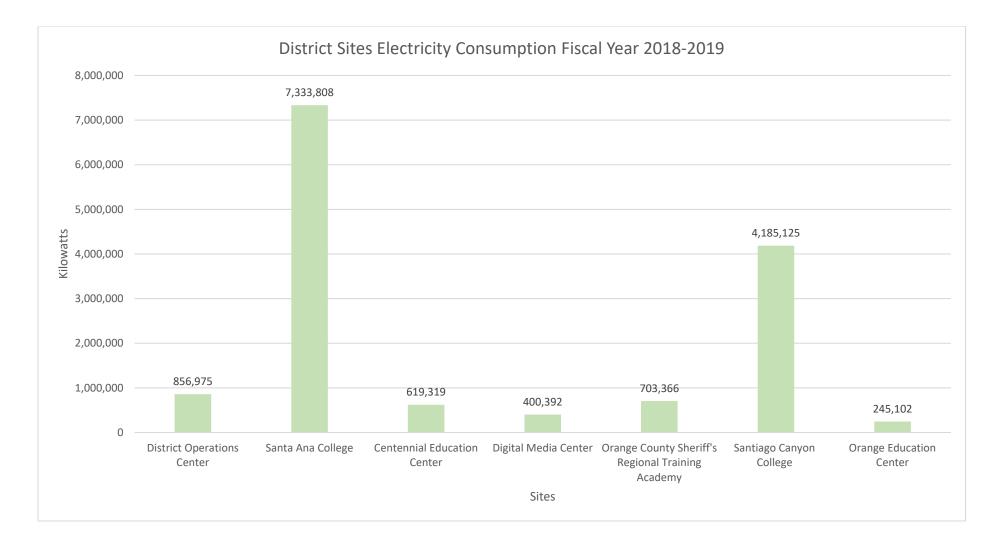


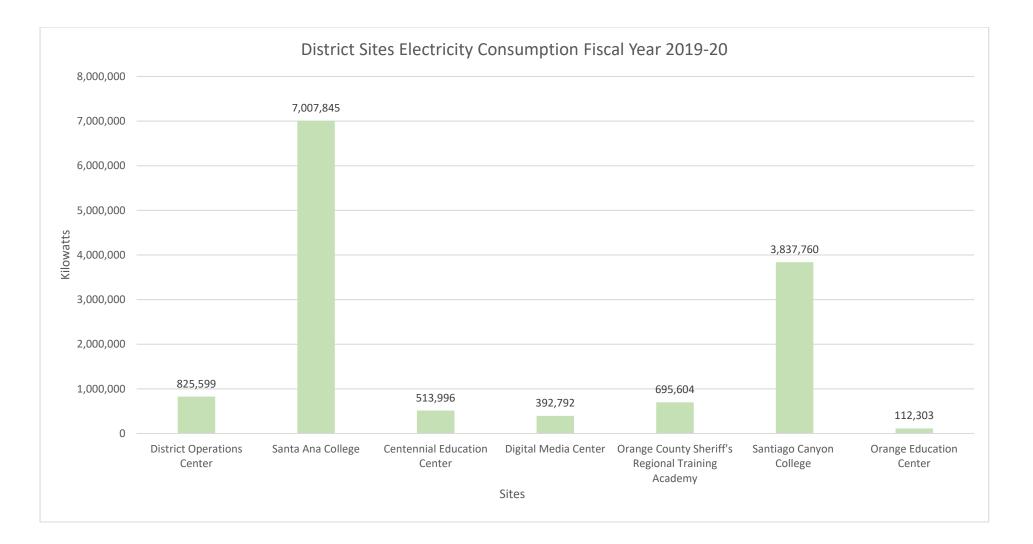














Providing Solid Waste and Recycling Services Since 1968

March 9 ,2021

### DISCLAIMER

Dear Carri,

Ware Disposal Inc. collects each venue separately to provide accurate weights for each RSCCD campus venue. With that said, however, our material recovery facility provides RSCCD an overall, monthly diversion rate for refuse, recycling and green waste.

Sincerely Jay Ware

General Manager Ware Disposal Co, Inc.



January 14, 2020

## **DIVERSION REPORT**

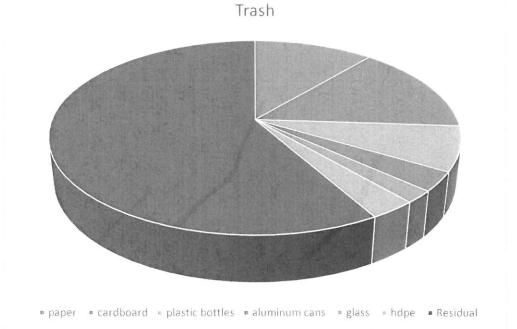
Calendar Year 2019

Linda Melendez Rancho Santiago Community College District 2323 N Broadway Santa Ana, CA 92706

#### RE: Calendar Year 2019 Diversion Report Districtwide (All Campuses)

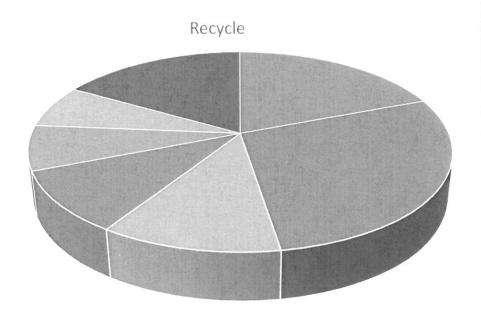
The tonnage reported below is a districtwide total tonnage report broken down into three categories, Trash Recycling and Organics. The total tonnage for all categories is **929.88** (**525.84 trash** / **183.36 Recycle** / **220.68 Organics**) the charts below will break down the items that are diverted from each group along with tonnage.

Total Trash Tonnage	Diversion Percentage	Diverted Tonnage	Residual Tonnage
525.84 Tons	41.74%	219.49 Tons	306.35 Tons



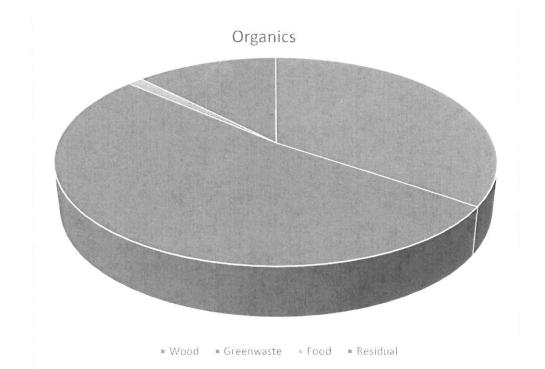


Total Recycling Tonnage	Diversion Percentage	Diverted Tonnage	Residual Tonnage
183.36	83.27%	152.69	30.67



» paper » cardboard » plastic bottles » aluminum cans » glass » hdpe » Residual

Total Organic Tonnage	Diversion Percentage	Diverted Tonnage	Residual Tonnage
220.68	87.69%	193.52	27.16



Ware Disposal Inc would like to thank you for allowing us to service RSCCD, and if you have any questions please feel free to contact me at <u>jay@waredisposal.com</u>

Sincerely,

547 - 54

JAY WARE General Manager Ware Disposal Inc

P.O. BOX 1318, NEWPORT BEACH, CA 92702



January 12, 2021

### **DIVERSION REPORT**

Calendar Year 2020

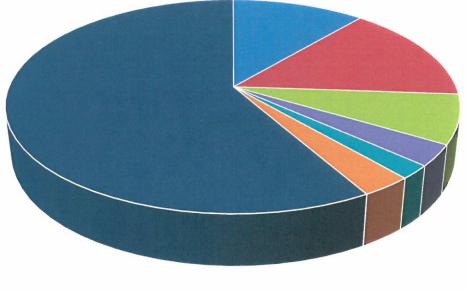
Linda Melendez Rancho Santiago Community College District 2323 N Broadway Santa Ana, CA 92706

#### RE: Calendar Year 2020 Diversion Report Districtwide (All Campuses)

The tonnage reported below is a districtwide total tonnage report broken down into three categories, Trash, Recycling and Organics. The total tonnage for all categories is **897.38** (**489.03 trash** / **177.32 Recycle** / **231.03 Organics**) the charts below will break down the items that are diverted from each group along with tonnage.

Total Trash Tonnage	Diversion Percentage	Diverted Tonnage	Residual Tonnage
525.84 Tons	42.05%	205.64	283.39 Tons

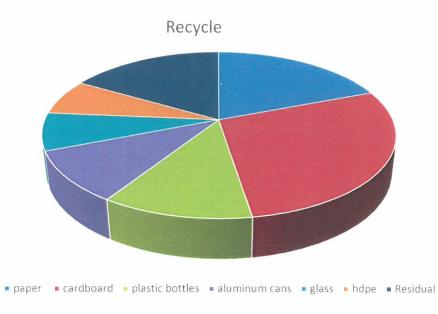




paper = cardboard = plastic bottles = aluminum cans = glass = hdpe = Residual

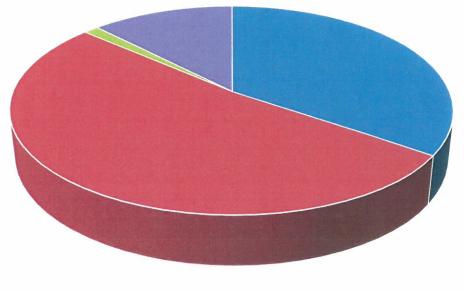


Total Recycling Tonnage	Diversion Percentage	Diverted Tonnage	Residual Tonnage
177.32	83.61%	148.26	29.06



Total Organic Tonnage Diversion Percent		Diverted Tonnage	Residual Tonnage
231.03	88.84%	205.25	25.78





Ware Disposal Inc would like to thank you for allowing us to service RSCCD, and if you have any questions please feel free to contact me at <u>jay@waredisposal.com</u>

Sincerely,

JAY WARE General Manager Ware Disposal Inc

P.O. BOX 1318, NEWPORT BEACH, CA 92702



February 10, 2021

### **DIVERSION REPORT**

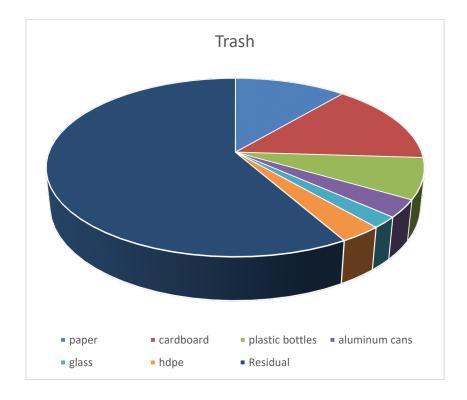
January 2021

Alex Oviedo Rancho Santiago Community College District 2323 N Broadway Suite #112 Santa Ana, CA 92706

#### **Services**

Trash (T) Recycling (R) Organics (O)

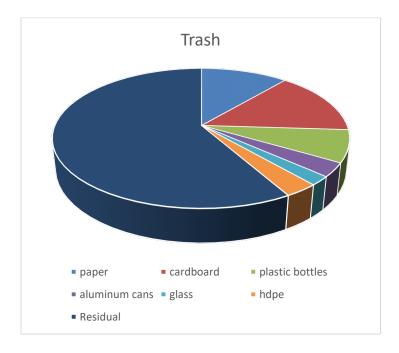
Location	Services	Total Tonnage	Diversion %	Diverted Tonnage	Residual Tonnage
Centennial	2-3y-5x week (T)	5.14	43.21%	2.23	2.91

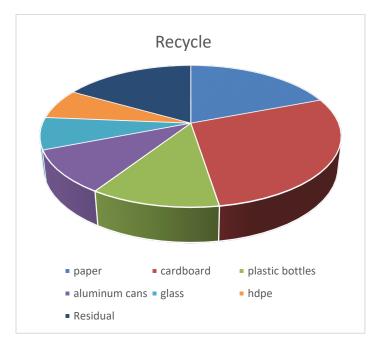




January 2021

Location	Services	Total Tonnage	Diversion %	Diverted Tonnage	Residual Tonnage
DMC	1-3y-2x week (T)	1.01	43.21%	.44	.57
	1-3y-2x week (R)	.89	77.39%	.69	.20
		1.90		1.13	.77

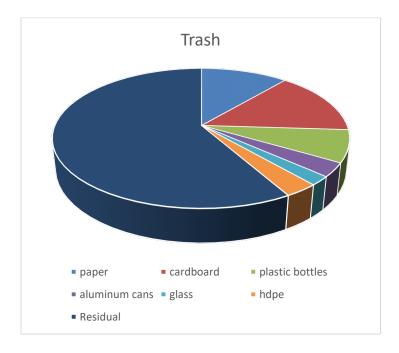


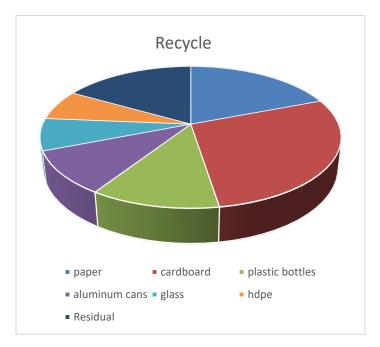




January 2021

Location	Services	Total Tonnage	Diversion %	Diverted Tonnage	Residual Tonnage
District Office	1-3y-5x week (T)	2.67	43.21%	1.16	1.51
	1-3y-5x week (R)	2.19	77.39%	1.70	.49
		4.86		2.86	2.00

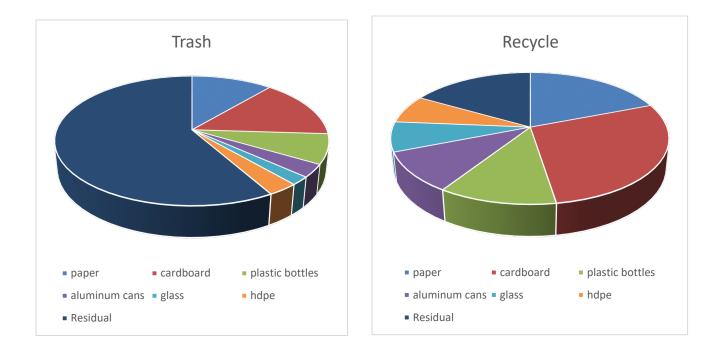


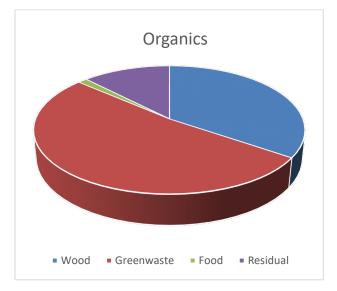




January 2021

Location	Services	Total Tonnage	Diversion %	Diverted Tonnage	Residual Tonnage
Regional TA	1-3y-4x week (T)	2.21	43.21%	.96	1.25
	1-3y-4x week (R)	1.95	77.39%	1.51	.44
	1-3y-1x week (O)	1.09	86.77%	.95	.14
		5.25		3.42	1.83

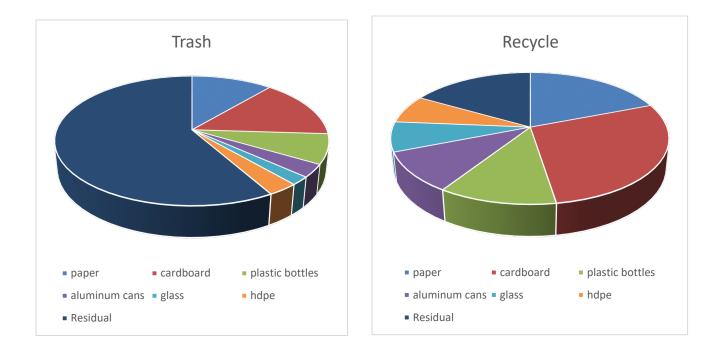


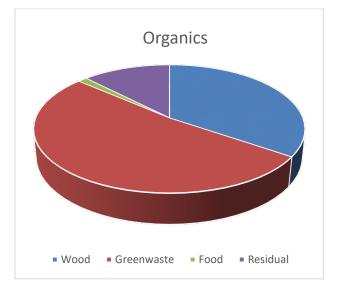




January 2021

Location	Services	Total Tonnage	Diversion %	Diverted Tonnage	Residual Tonnage
Santa Ana	9-3y-5x week (T)	24.75	43.21%	10.70	14.05
	3-3y-5x week (R)	21.78	77.39%	16.86	4.92
	5-3y-5x week (O)	27.29	86.77%	23.68	3.61
		73.82		51.24	22.58



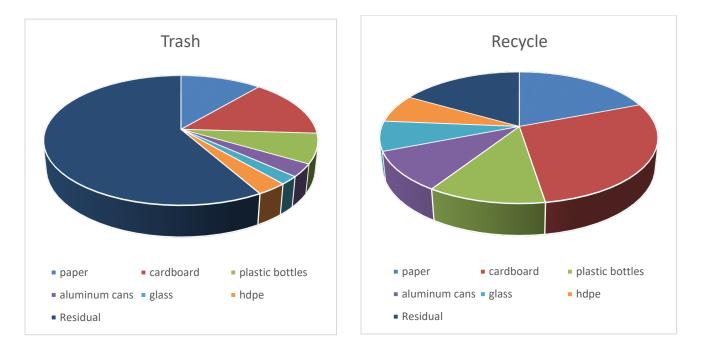


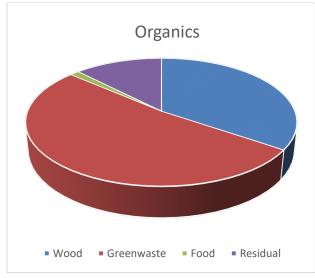


January 2021

Alex Oviedo Rancho Santiago Community College District 2323 N Broadway Suite #112 Santa Ana, CA 92706

Location	Services	Total Tonnage	Diversion %	Diverted Tonnage	Residual Tonnage
Santiago CC	4-3y-5x week (T)	11.00	43.21%	4.76	6.24
	2-3y-1x week (R)	2.79	77.39%	2.16	.63
	3-3y-5x week (O)	18.53	86.77%	16.08	2.45
		32.32		23.00	9.32





JAY WARE General Manager Ware Disposal Inc