



Peralta Sustainability and Resiliency Master Plan


Report Progress and Next Steps





Presentation Overview

- Overview
- Data Findings
- Survey Results
- Preliminary Goals and Measures
- How to Get Involved



What is the Sustainability and Resiliency Master Plan (SRMP)?

The SRMP is a guide to improving on campus efficiency in the areas of water, energy, waste, food, and transportation. The goal of the SRMP is to improve the districts ability to provide education now and into the future by lowering operating costs, providing a healthy environment, and educating the next generation of environmentally conscious citizens.

The SRMP will include goals in multiple target areas as well as step by step actions designed to meet those goals over time.

Provide feedback for the SRMP: <https://www.peraltasustainabilityplan.org>



Emission Inventory

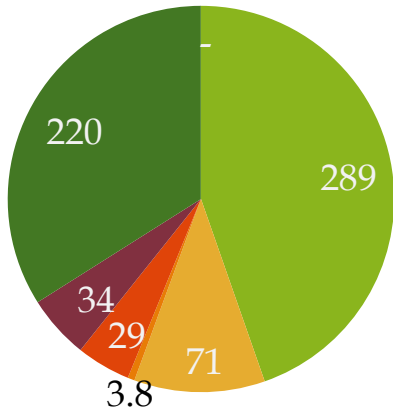
Data collection and preliminary results



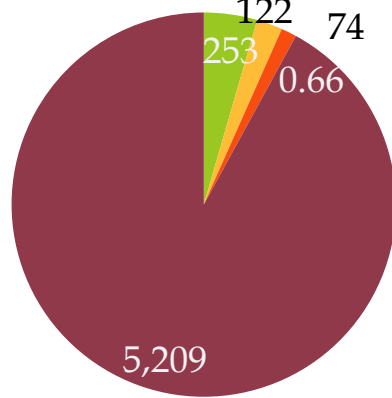
Current Emissions by Source

- Electricity
- Natural Gas
- Water*
- Waste
- Commute Emissions
- Vehicle Fleet (District)
- Conference/Sports Travel (Laney)

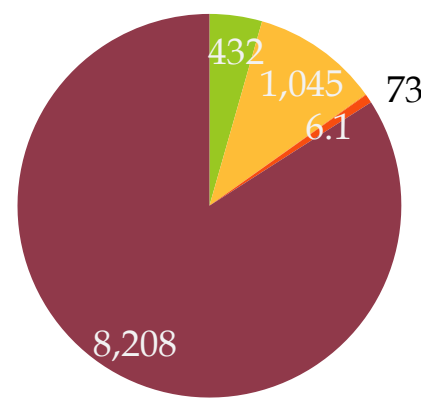
District
647 MT CO₂e



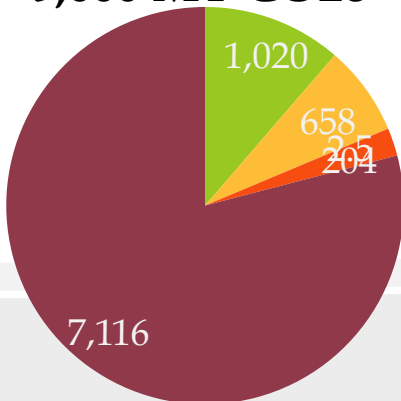
Berkeley
5,660 MT CO₂e



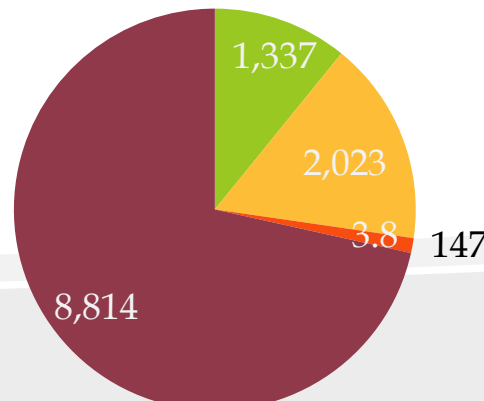
Merritt
9,764 MT CO₂e



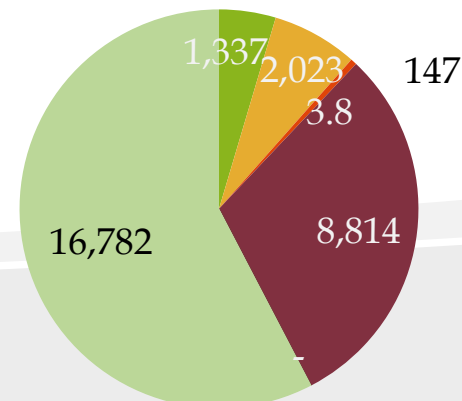
Alameda
9,000 MT CO₂e



Laney
12,324 MT CO₂e



Laney (w/Travel)
29,106 MT CO₂e

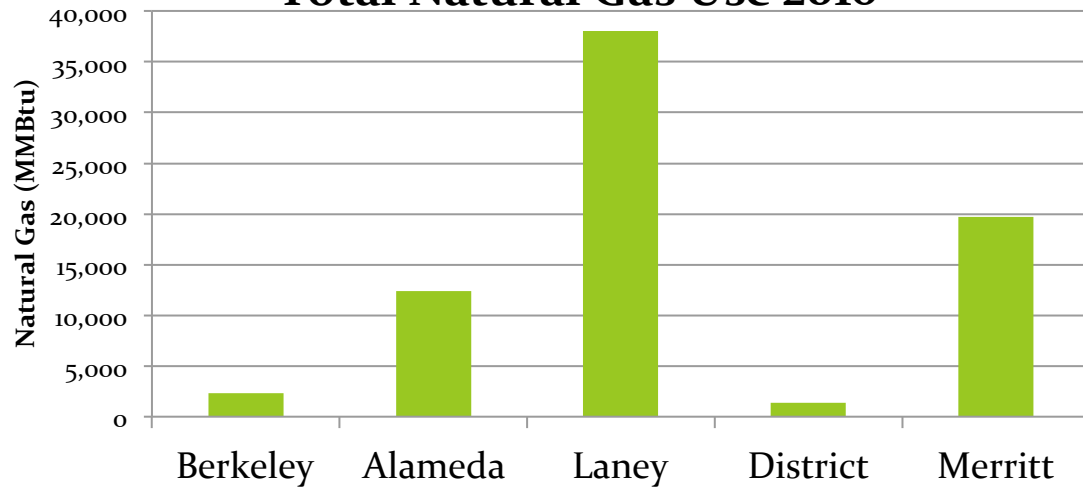


*Laney Water includes District



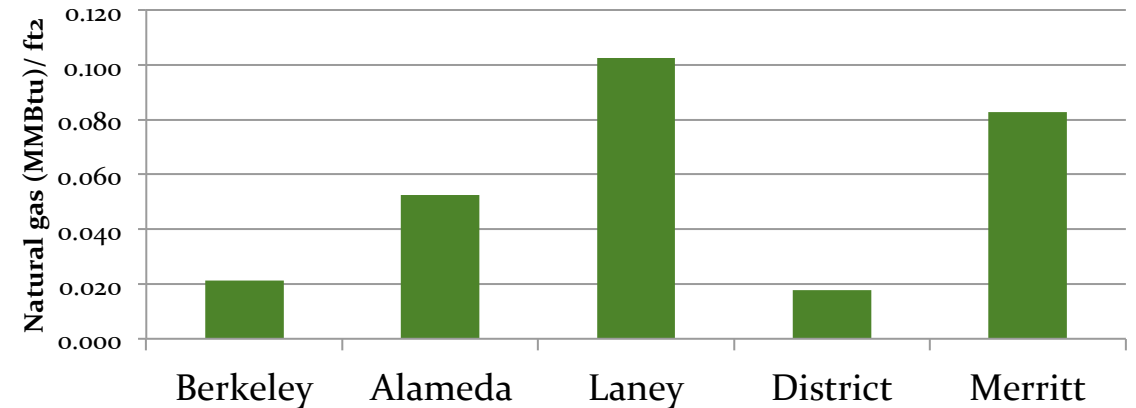
Natural Gas Use by Campus

Total Natural Gas Use 2016



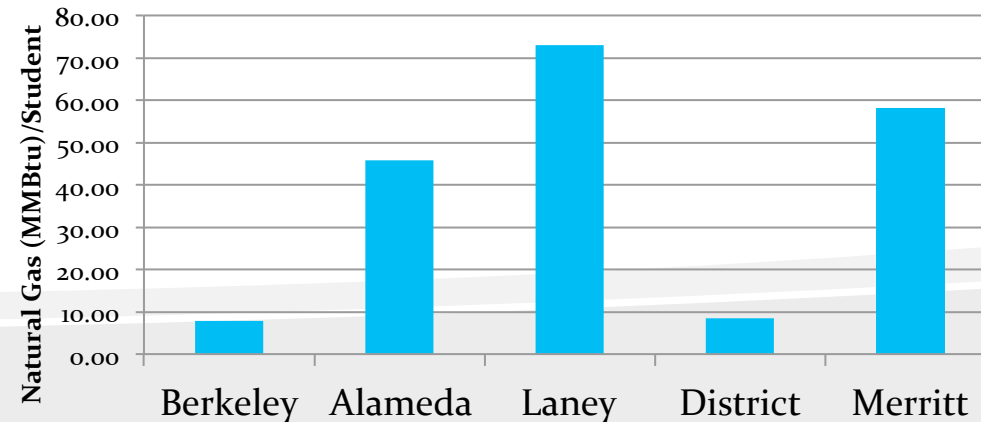
Natural Gas Use Per Square Footage*

*Assignable square footage



Natural Gas Use per Student

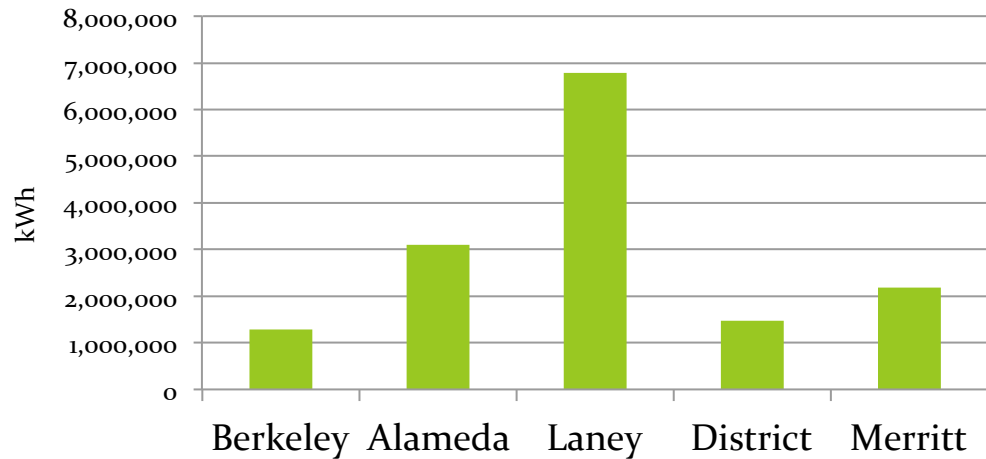
Based on average enrollment in 2016





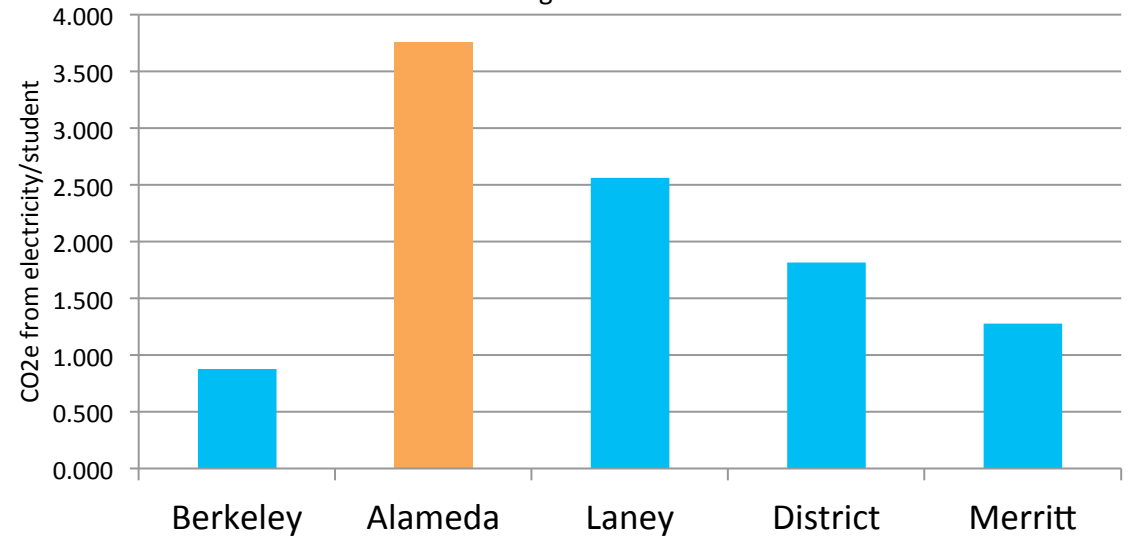
Electricity Use by Campus

Total Electricity Consumption for 2016



CO₂e from Electricity per Student

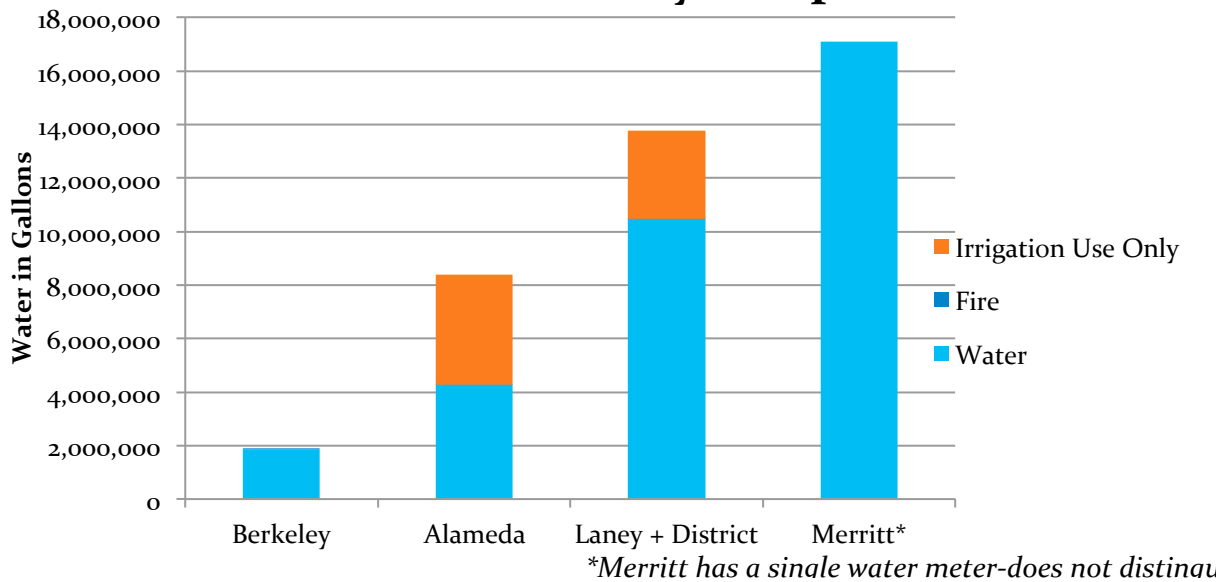
Based on average enrollment in 2016



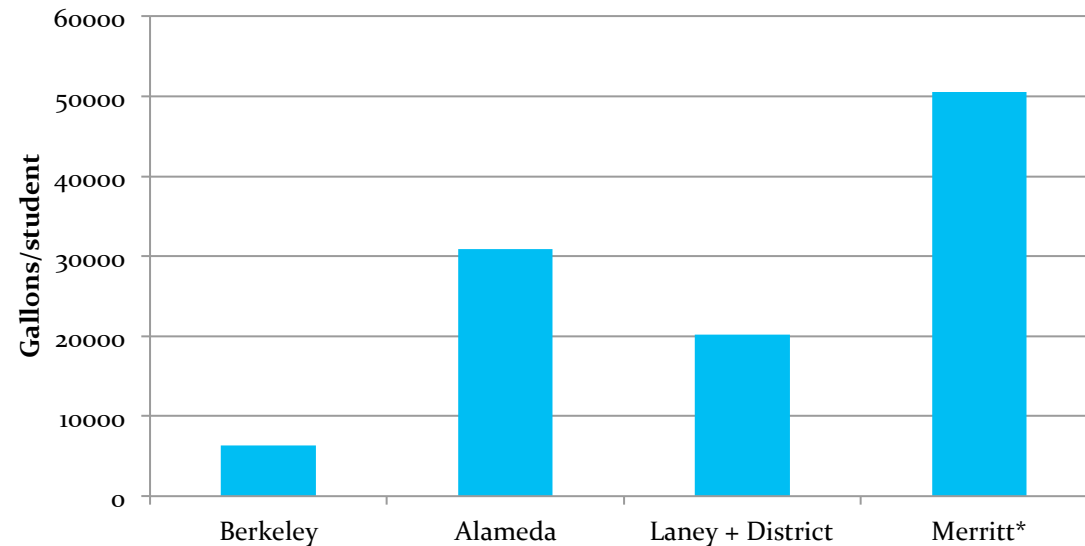


Water Consumption by Campus

Total Water Use by Campus



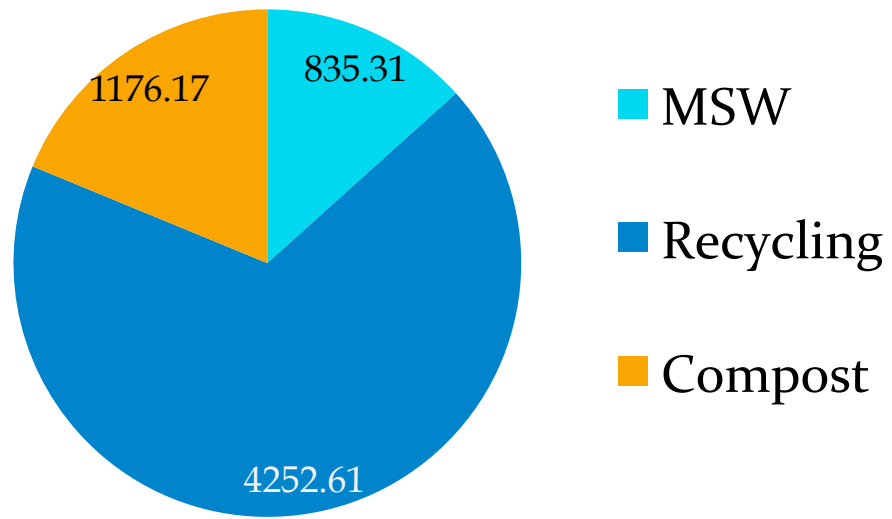
Water Intensity



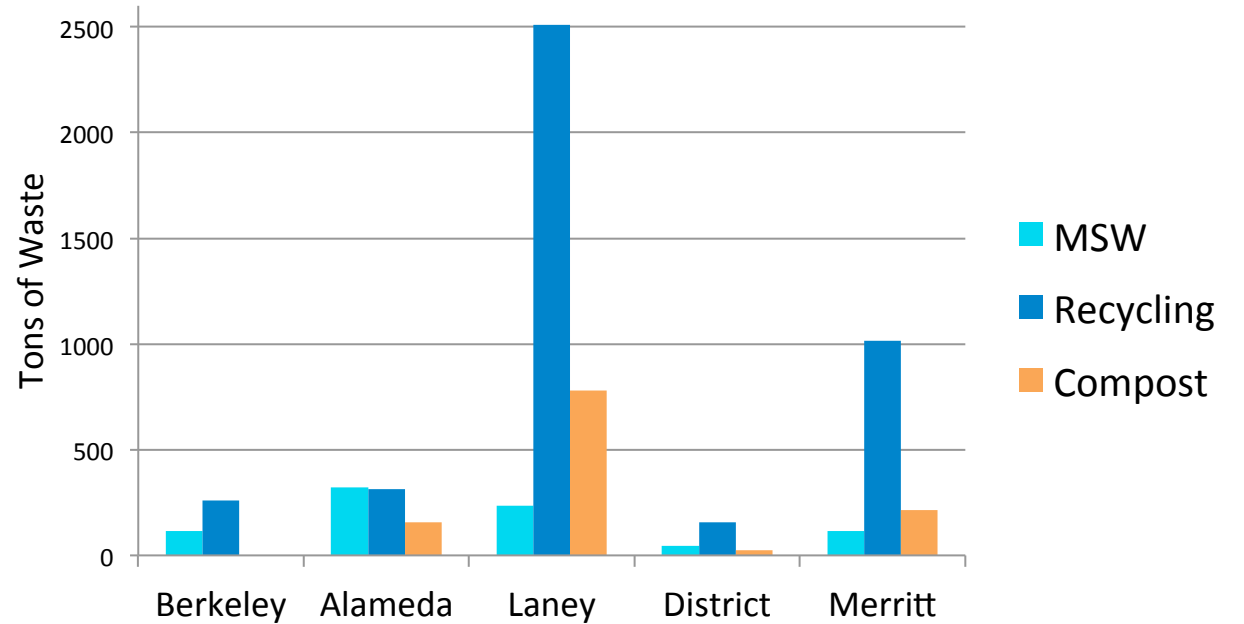


Waste Generation by Campus

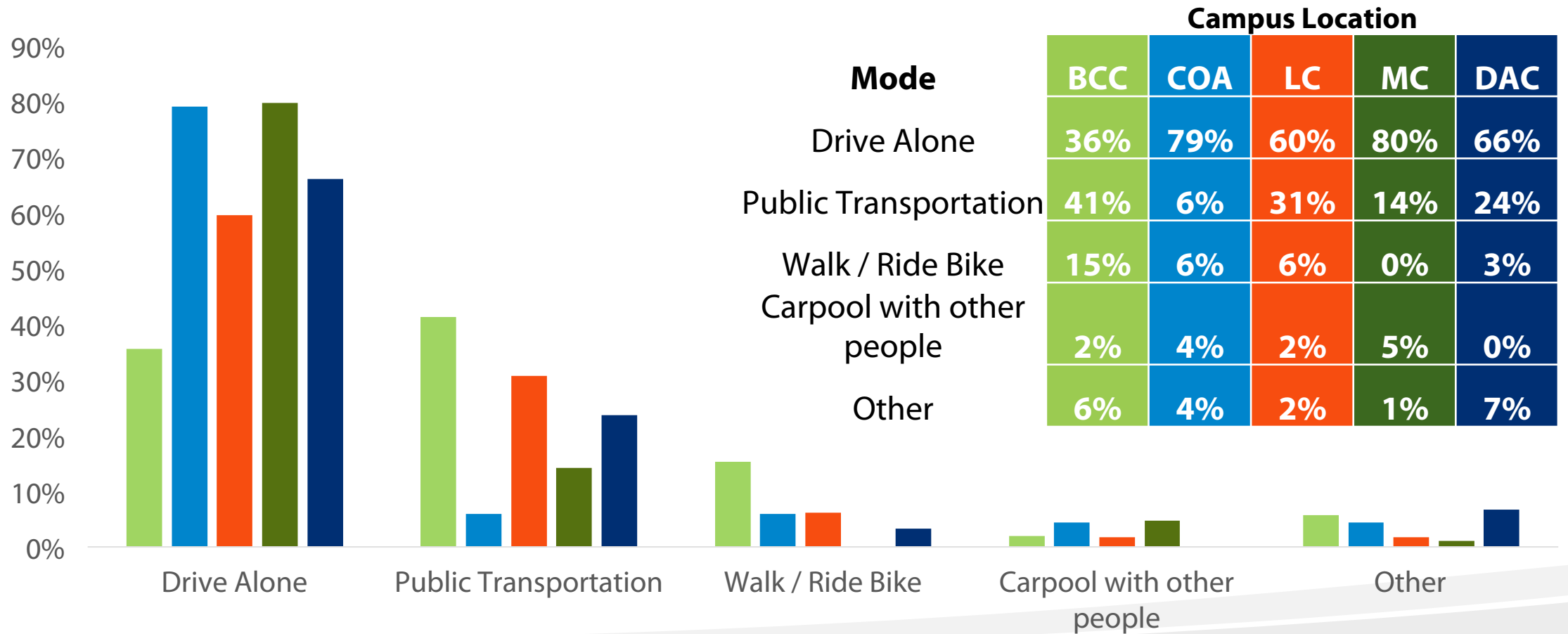
Waste Distribution at PCCD (Tons)



Waste Distribution by Campus



Commute Mode Split by Campus

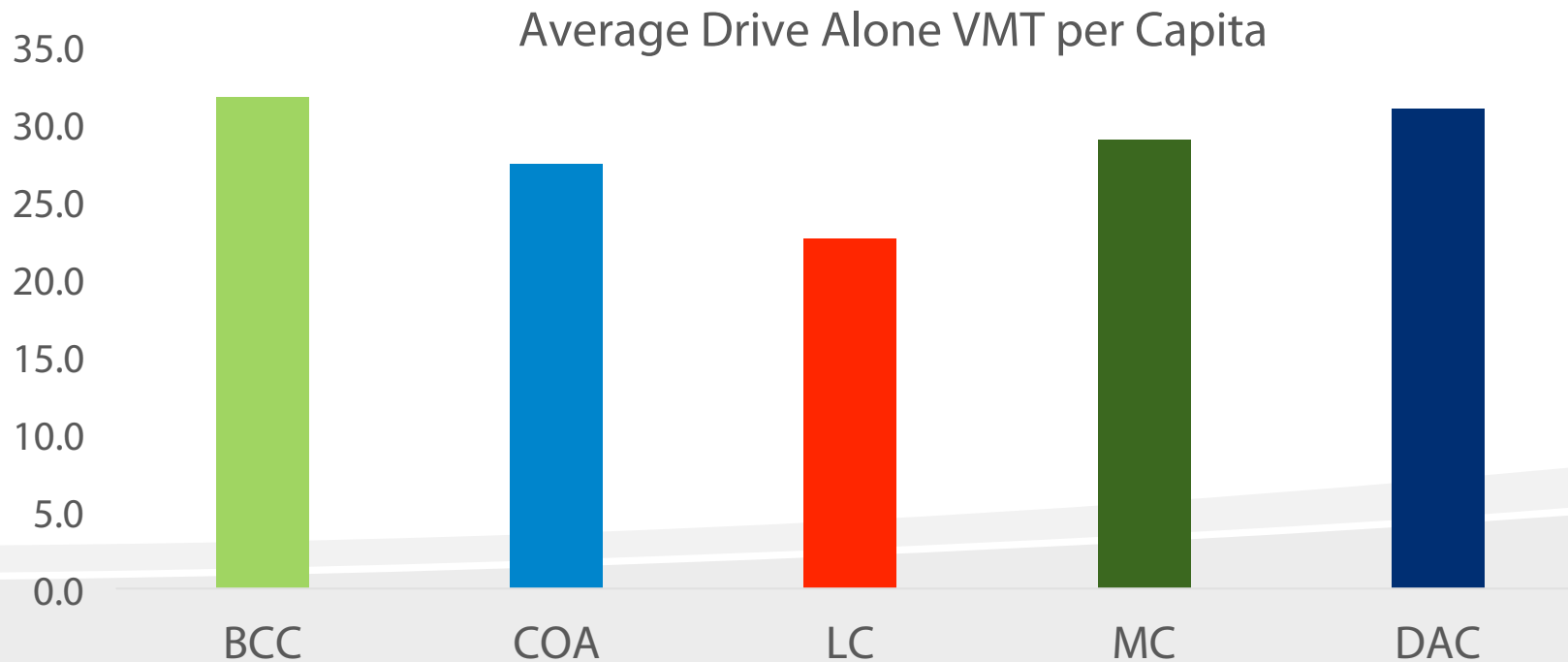


■ BCC
 ■ COA
 ■ LC
 ■ MC
 ■ DAC



Average Drive Alone VMT per Capita by Campus

	Campus Location				
	BCC	COA	LC	MC	DAC
Average Distance between Home and Campus (miles)	15.8	13.7	11.3	14.5	15.4
Drive Alone VMT Per Capita	31.7	27.4	22.5	28.9	30.9





Survey and Engagement Results

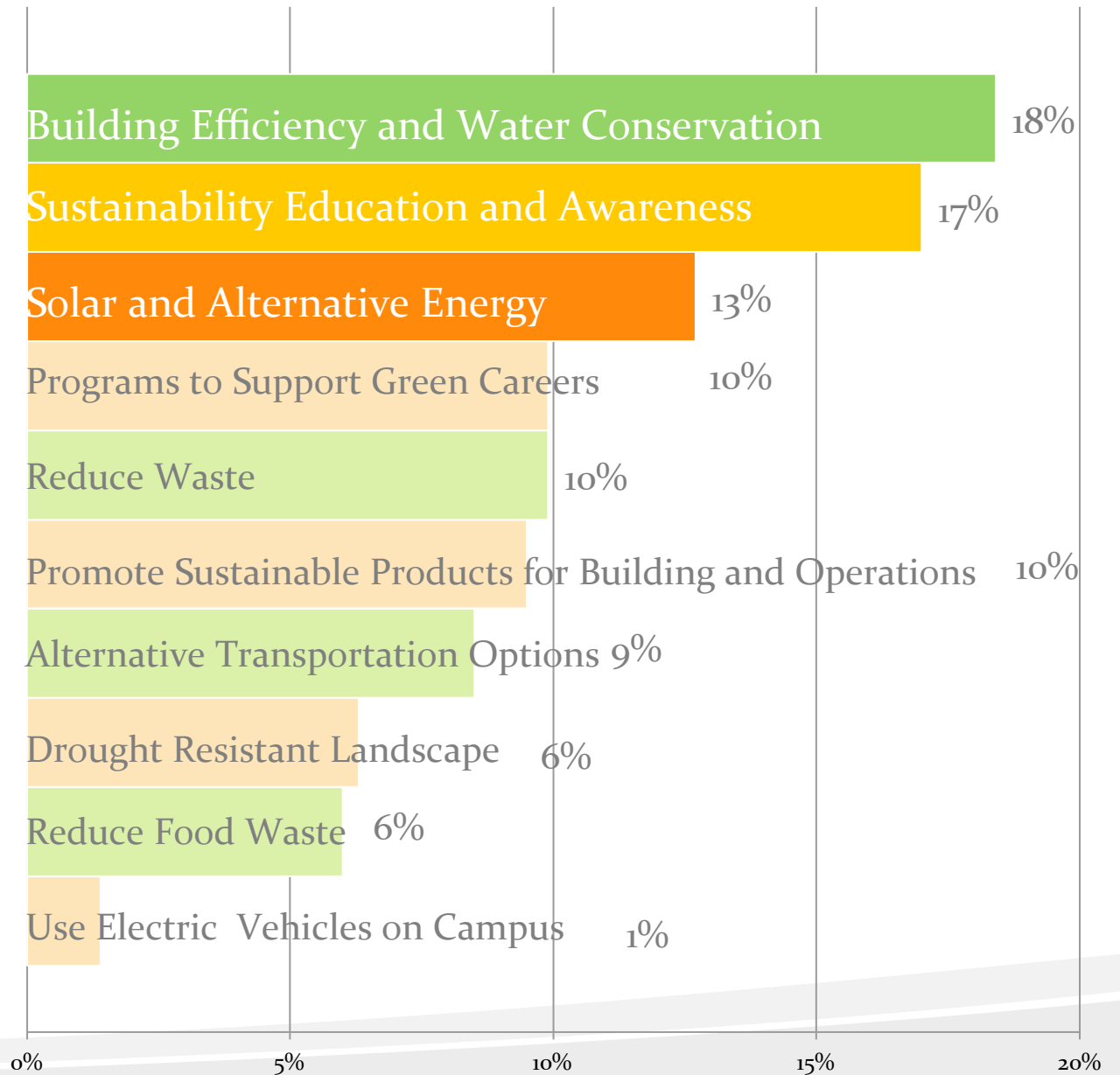
Feedback from around the District



Laney SMP Forum

5/11/17

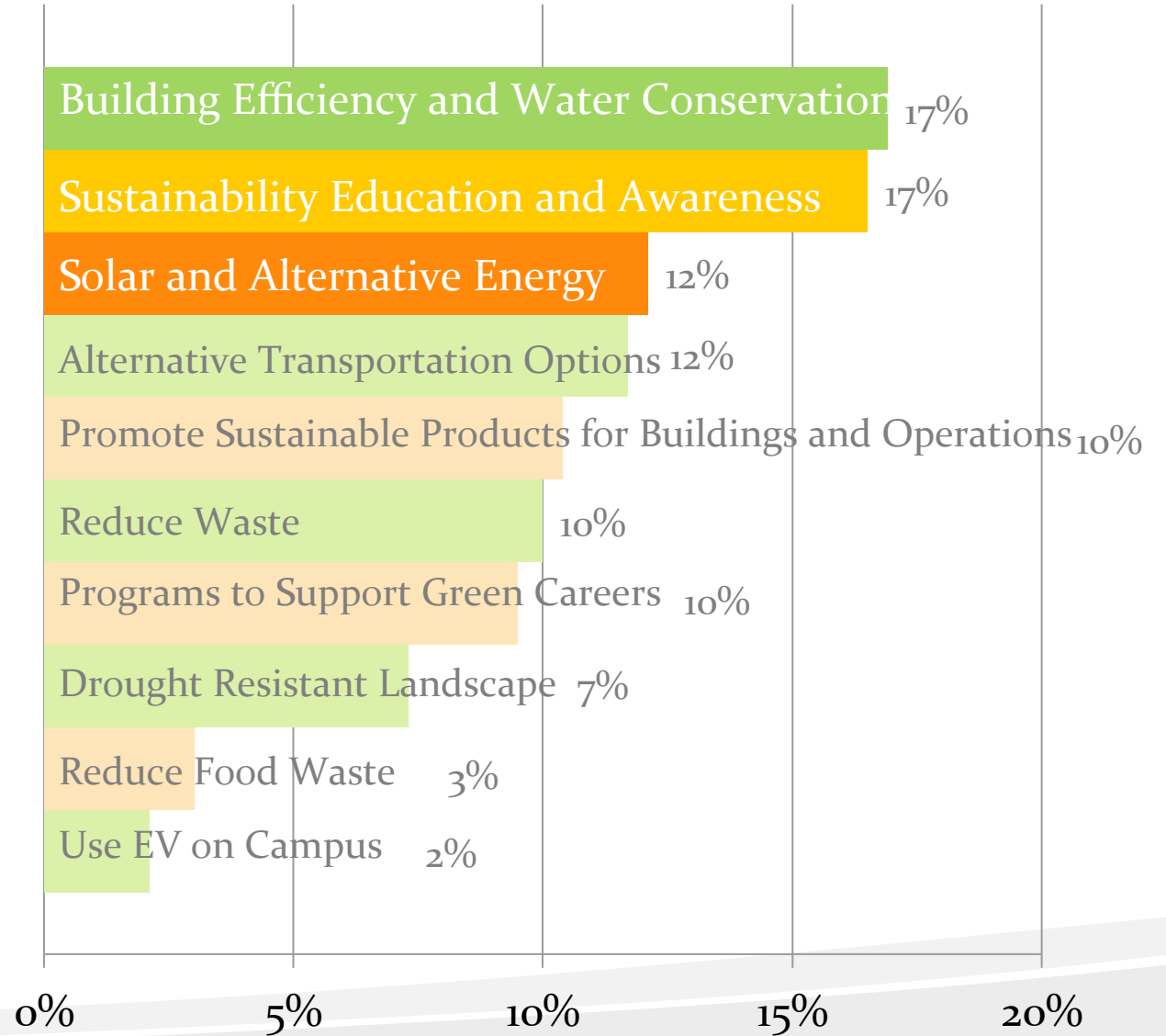
- Need for infrastructure upgrades.
- Laney has highest electricity use of all campuses
 - Potential to harvest heat from data center to support water heating
- Make the campus more walkable-connect it to the city and Lake Merritt
- Involve students in sustainability efforts
- Educate the students, engage the students, have conversations, actionable items
- Develop Sustainability Scorecard or App with real-time monitoring
- Create a visual reminder and model of sustainability on campus



Merritt SMP Forum

5/4/17

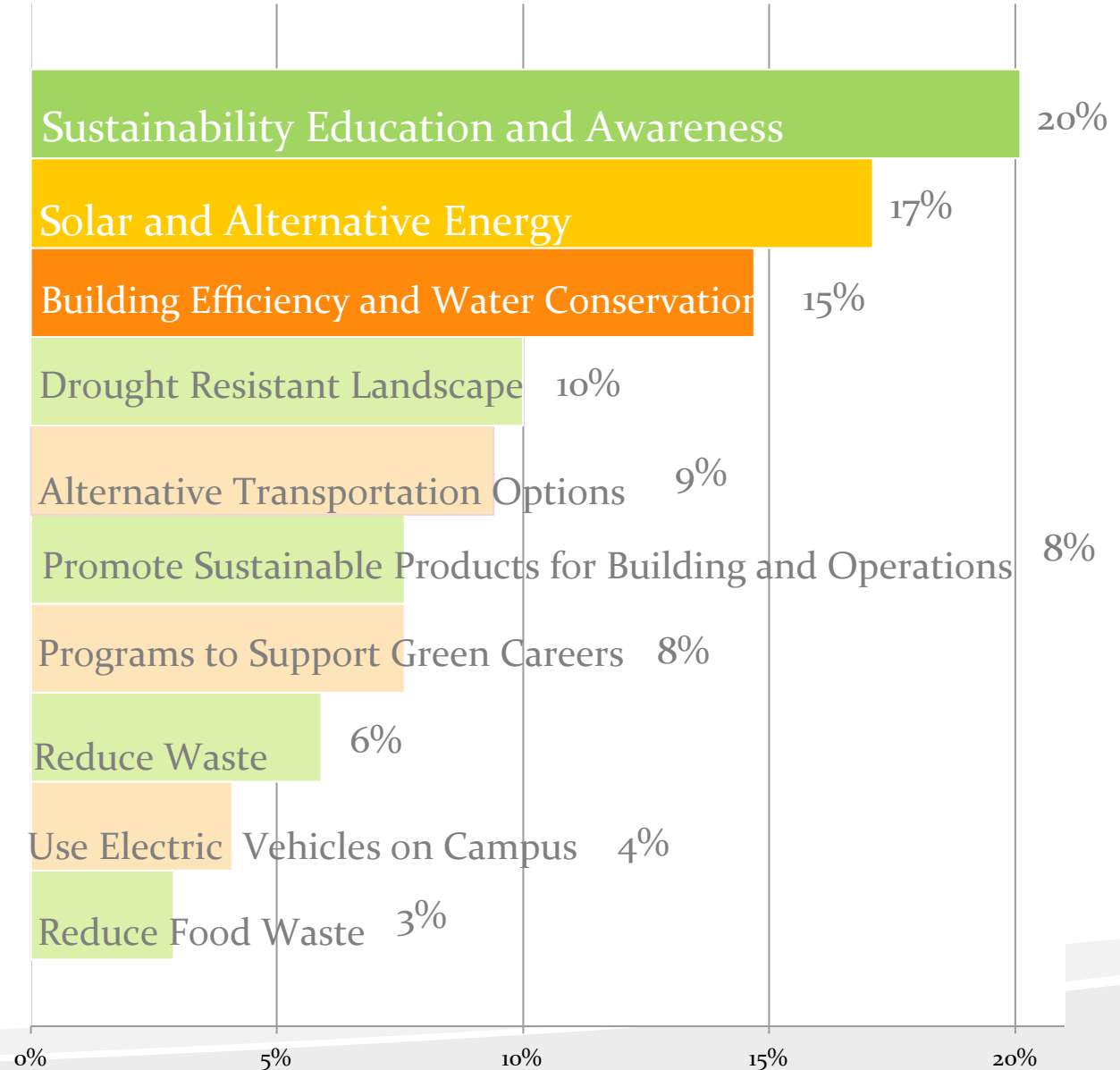
- Difficult to access except by personal vehicle
- Merritt is currently 'over-built' for population it serves, but also has large expanse of under-utilized space
 - Opportunity to lease un-used buildings (as permitted)
 - Opportunity to build other facilities such as student housing, theater facility, etc.
- Potentially interested in an independent power system (e.g. electricity storage, backup generator).
- Resiliency: Merritt is the safety zone/ shelter space for the surrounding residential in the event of an emergency.
- L-Building has state-of-the art sophisticated and energy efficient lighting system but no one knows how to program it.



Alameda SMP Forum

5/10/17

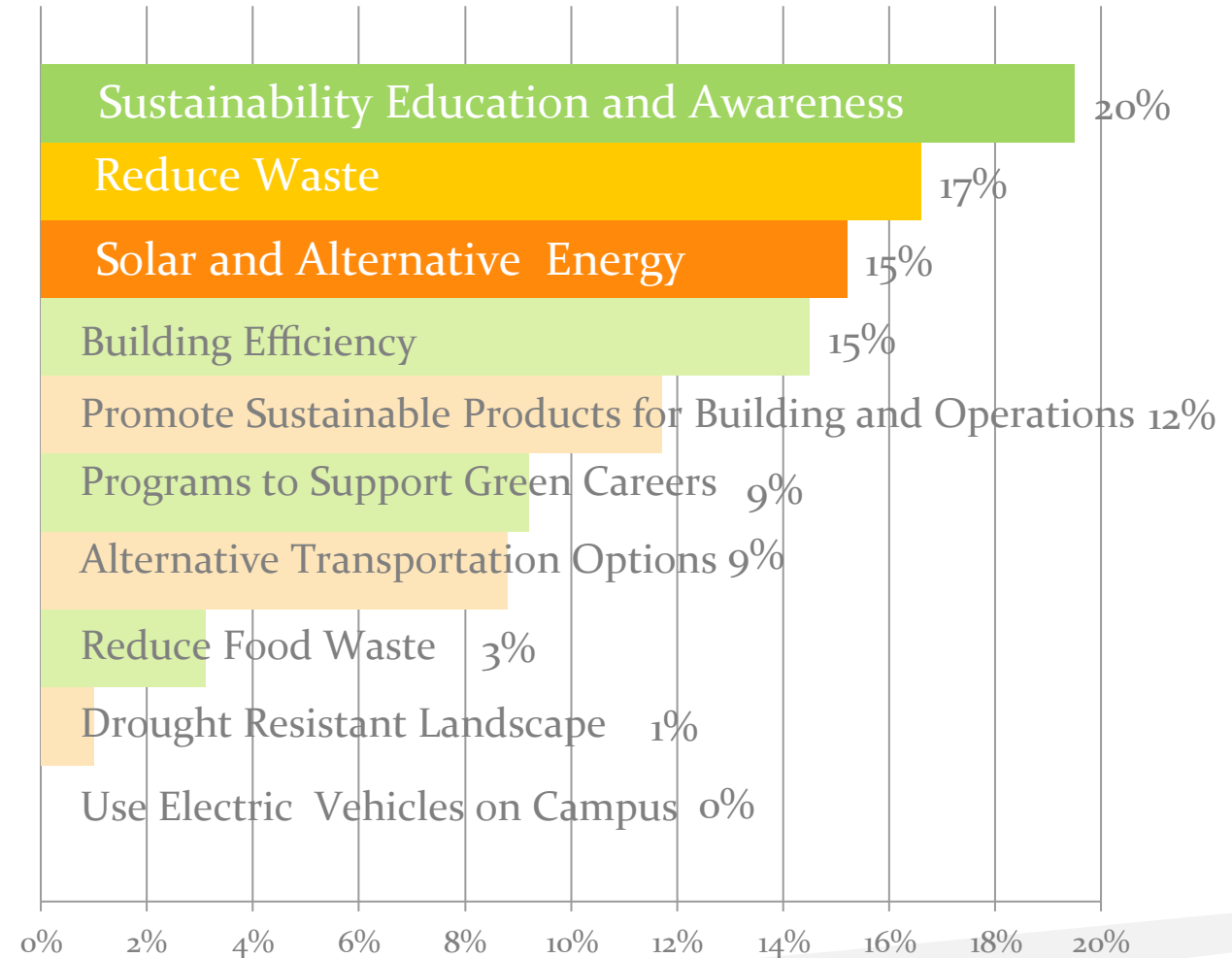
- 79% drive along to campus.
- Need to promote, advertise and increase alternative transportation
 - Estuary Shuttle from Lake Merritt Bart to CoA; AC Transit Bus from Fruitvale Station to CoA and 12th St Station—are these being used to full potential?
- Sustainably landscape lawn area with goal to reduce irrigation
- Needs to be more inviting/ engaging to the community
 - City of Alameda is creating a linear park along the edge of campus with all native plants (no irrigation). Campus landscape could mirror this design and integrate with this alternative transportation mode.
- Potential for Solar Power (space and sun, but Public Utility)
- Would like EV charging stations
- No AC and the buildings are very hot during heat waves.
- Opportunity to design cooler buildings



Berkeley SMP Forum

5/16/16

- Need more space!
 - Office space, student space, classroom space, green space.
 - BCC has the capacity to grow considering their enrollment numbers, but no space to do it.
- >40% use public transit because very convenient.
- Would like to incentivize public transit (BCC currently reimburses/subsidizes parking, but it is much more difficult to get subsidy for public transit use)
- Adopt Car Share Program (e.g. City Car Share) for staff/faculty to get to other campuses as needed without a personal vehicle
- Want more water-bottle filling stations and food options
- Need green space – perhaps green roofs!





Overall Themes

- Agreement that Sustainability is important
- Less understanding about the elements and needs to achieve sustainability
- Skepticism about the ability of District to implement
- Need to increase awareness, education and communications for everyone
- Be as transparent as possible with plan measures and goals
- Connect sustainability with critical needs such as infrastructure and building improvements



Overall Themes

- Create an implementable plan – phased and cost effective
- Need to balance needs and politics between District and Campuses
- Ensure Plan has “teeth” so it can be implemented regardless of changes in administration
- Incorporate concepts about sustainability from physical spaces, to operations, to curriculum and beyond
- Build advocates at each campus and district
- Need to create strong messaging that resonates with the unique needs of each campus/audience



Opportunities

- Create District-wide Goals and Policies with Campus specific implementation
- Make bulk and central purchasing at District as sustainable as possible and it will flow to rest of Campuses
- Establish Facility Maintenance leaders at each campus to manage and operate complex equipment
- Create incentives for Campus sustainability with cost and revenue sharing around sustainable practices



Opportunities

- Integrate resiliency and sustainability as a routine practice
– culture change
- Leverage knowledgeable staff to education, teach and support sustainability
- Build District's reputation if it can achieve goals
- Access additional State and utility funding



Challenges

- Lack of engagement
- Lack of trust
- Unclear about the Value of Sustainability
- Sustainability is a priority in word, but not in action
- Upfront costs, training and resources required to achieve goals - connected to perceived lack of value of activity
- Lack of understanding of benefits and needs



Major issues

- Energy costs
- Garbage and trash
- Transportation and lack of transit at two campuses
- Landscape Culture – Grass Everywhere!
- Facility conditions, esp. at Laney



Current Policy and Preliminary Goals

Where are we now, and where are we going?



Current Board Policy (2007)

- New buildings should exceed Title 24 by no less than 35%
- Reduce emissions associated with “energy consumption” by 50% by 2012 and “carbon neutral” by 2017
- Reduce water
- Reduce waste
- A comprehensive recycling plan
- Compost food



Current Board Policy (2007)

- Sustainable Landscaping
- Commitment to alternative transportation
- LEED Certification for all new buildings
- Establish policies to improve indoor air quality
- Include environmental sustainability in district contracts and purchasing



Current Board Policy (2007)

- Procure healthy materials
- Utilize recycled materials
- Sustainable purchasing policy for paper, ink, and other items



Sustainability Master Plan

How do we meet those goals?



Sustainability Master Plan Vision Statement

The Path to Zero Emissions

Enhance the Learning Environment – (Every Action must support the overarching mission of delivering education: for transfer, retraining, professional development, personal enrichment/lifelong learning)

Increase Efficiency (The goal of the PCCD is to achieve zero emissions through efficiency increases)

Reduce Waste (The goal of the PCCD is to compost, recycle, or reuse all items on campus)

Be Resilient (The Goal of the PCCD is to prepare for changes in climate, prepare students for green economy, etc..)

Provide feedback for the SRMP: <https://www.peraltasustainabilityplan.org>



Sustainability Master Plan Goals

Goals for 2030 and 2050 will be set for the following areas.

- Water use
- Waste generation
- Energy use and Emissions
- Transportation (VMT)
- Food
- Procurement
- Education
- Enhanced/Healthy Workplace

Goals will be consistent with other colleges and regulations



Sustainability Master Plan Measures

To meet those goals actionable and quantifiable measures will be put in place.

Measures will be SMART

Specific.

Measurable.

Attainable.

Relevant.

Time Bound.



Example Commute Reduction Measures

Goal

- Reduce Vehicle Miles Traveled (VMT) at each campus by 20%

Measures

- Install 10 bike racks throughout campus
- Establish inter-campus shuttle service
- Establish program to provide free/reduced cost BART passes
- Reduce parking/decouple parking costs



Example Climate Change Measures

Goal

- Climate neutral for scope 1 and 2 energy sources by 2025

Measures

- All new buildings LEED Gold
- Install 200kw of new solar district wide by 2020
- Audit three largest energy consuming buildings at each campus
- Commission three largest natural gas consuming buildings on each campus by 2020
- Install Solar Hot Water heater for Laney Pool.



The SRMP Team Needs Your Feedback

- Visit <https://www.peraltasustainabilityplan.org> to provide feedback on what goals and measures you want to see included.
- Look out for upcoming draft SRMP discussions happening at your campus in November