How Should SCU Conserve Water?

REPORT OF STUDENT FORUMS
MAY 2015
CONDUCTED BY STUDENTS IN
COMM 128B – DIALOGUE AND DELIBERATION

AUTHORS

Makeda Adisu
Lindsey Allen
Steven Berman
Kirsti Buckendorf
Ryan Budnick
Robin Calhoun
Grant Depositar
Anthony Florentine
Robert Garrett
Kevin George
Rani Hanstad
Dominic Hattouni
Lyndsey Kincaid
Claire Kozel
Jacob Lans
Alexander Ligeti
Jonathan Sneeringer
Kaitlyn Tucker
Ryan Walker
Veronica Ybarra
Victoria Yu

EDITOR
Chad Raphael

DATA ANALYST
Christine Bachen

CONTENTS

EXECUTIVE SUMMARY

The Forums: Students in a course on dialogue and deliberation organized three forums for SCU students to discuss how students and the university can conserve water in the current drought. The forums aimed to inform campus decision makers in Operations, Sustainability, and Residence Life. Over 75 students participated in the discussions. Using an issue guide designed by the class, participants learned about the California drought and what SCU is doing in response. Students then discussed three broad approaches to water conservation – voluntary measures, creating incentives to conserve, and mandatory restrictions – as well as more specific action steps we are taking or could take. Attendees were also invited to suggest their own proposals. Students then filled out a survey in which they rated each approach and action step, and evaluated the forum.

Student Opinions: While a majority of participants endorsed all three approaches to conservation, opinions differed on the action steps discussed.

- In general, *students were most supportive of mandatory reductions to the remaining 15 percent of landscape irrigation that still relies on fresh water.* Large majorities favored transforming SCU's landscape by removing non-essential lawns in favor of drought-tolerant plantings, replacing fountains with other decorative installations, and replacing grass on all athletic fields with artificial turf.
- *To reduce their personal use of water, students preferred educational and voluntary measures, and the application of positive and negative incentives.* Nonetheless, majorities supported some potentially robust incentives that involve sacrifices, including installing shower timers that require users to push a button for a minute of water and limiting the number of loads of laundry students can do each month on campus. Students were less enthusiastic about metering water and charging heavy users more.

Student Reasons: In their reasoning, students recognized the value of voluntary approaches for respecting students' autonomy, being relatively cheap and easy to implement, and educating on-campus and off-campus students about how to use less water. However, many participants worried that stronger steps may be necessary because some people will ignore voluntary efforts or refuse to conserve if there are no repercussions, that education will not create a fast enough response, and especially that asking for "voluntary" steps makes the drought seem less serious than it is. At the same time, students generally preferred incentives over required rationing or putting a price on water used in residence halls. Incentives were seen as respecting people's different needs and abilities to pay for water, as well as avoiding unintended consequences, such as student resistance, diminished enrollments, and steep costs to implement water metering in residences.

What Kind of Public Opinion is This? Although there were not enough participants to form a statistically representative sample of the SCU student body, the forums drew a diverse group who were given a good deal of information about the issue and who

deliberated about it with peers for over an hour. Thus, their conclusions offer *a picture of well-informed student opinion* – what SCU students might come to think if they learn more about water conservation and discuss it with people of multiple perspectives.

Evaluation of the Forums: The forums themselves were evaluated very positively by participants. Large majorities felt that students explored different perspectives (94 percent), demonstrated mutual respect for each other's ideas (91 percent), that conversations were facilitated impartially (89 percent), and that students learned enough to arrive at well-informed views (69 percent). Most students also agreed that they discovered new ways they could conserve water (76 percent), learned more about how SCU is reducing its water usage (70 percent), and felt more committed to water conservation after the forums (82 percent).

Future Engagement of Students: Although some students expressed strong doubts that SCU administrators would pay attention to their opinions, over half of participants said they thought that administrators would listen to the views expressed at the forum. Students who said they learned more about the steps the university has taken to conserve were also significantly more likely to express trust in administrators to listen to student views.

This suggests that increased collaboration and consultation with students will likely facilitate greater care and cooperation in conserving water, as students recognize the school is both listening and taking action. Ongoing opportunities for students to discuss conservation solutions with a cross-section of the student population and with administrators are likely to be more productive than top-down presentations of information alone. Participants appreciated that the issue guide and starter presentation helped them to understand the severity of the drought, but they formed their opinions in active deliberation with their peers at the forum, as they weighed the pros and cons of different courses of action and imagined new solutions. *Ongoing student deliberation about water use could be an important and productive addition to SCU's conservation plan.*

HOW THE FORUMS WERE CONDUCTED

Purpose and Organizers: As a class project, students in COMM 128B organized three forums that convened SCU students to discuss and form opinions about how students and the university can conserve water in the current drought. This kind of deliberation is useful because it allows students to discover new ideas, hear different perspectives, weigh trade-offs, and ultimately make better decisions than we would otherwise. This report is being shared with students who participated in the forums as well as campus administrative leaders in housing, operations, and sustainability to inform their decisions.

The Communication Department sponsored the forum. SCU's Center for Sustainability provided information regarding the current state of the drought, its implications for the university, and steps SCU has taken to conserve water.

Recruitment: Three forums were held on May 20-21, 2015 in Benson Center. Participants were recruited through COMM 128B students' personal networks, tabling outside Benson Center, and announcements on campus screens, flyers, and sidewalk chalking. In addition, professors in Environmental Science, Communication, Political Science, and Engineering were asked to recruit students from their classes. About half of the students who attended the forum received academic credit for doing so. Students who pre-registered received a two-page issue guide that summarized several approaches to water conservation.

Representativeness: Participants differed somewhat from the population of SCU students in several ways. In particular, females, non-Californians, sophomores, and students in the College of Arts & Sciences were slightly over-represented at the forums. Communication and Environmental Sciences and Studies majors were significantly over-represented.

	Forum Participants	**Undergraduate Population**
Female / Male	60% / 40%	51% / 49%
From California	57%	62%
First Year / Soph. / Jr. / Sr.	19% / 39% / 25% / 17%	26% / 24% / 21% /29%
On campus / Off campus	54% / 45%	52% / 48%
A&S / LSB / ENGR	66% / 12% / 21%	61% / 19% / 20%
Communication majors	20%	6%
Envtl. Scis. & Studies majors	16%	2%

Issue Guide: In the issue guide, Approach 1 focused on educating the SCU community to cut water usage voluntarily, Approach 2 focused on creating incentives to conserve, and Approach 3 focused on implementing mandatory measures. Each approach had five specific action steps associated with it, along with some counter-arguments. Approach 1 was drawn primarily from the university's drought website explaining actions that the university is already taking while Approaches 2 and 3 were developed independently by our class. Representatives from campus Operations, Residence Life, and the Center for Sustainability were asked to comment on the accuracy of an advance draft of the issue guide. Additionally, the proposed approaches listed in the issue guide were intended to help spark new action steps and ideas that other students might have.

Format: We adapted a World Café format in which students engaged in multiple small group discussions at round tables while enjoying coffee, tea, and cookies. While some discussion time is lost in transitioning between tables, there are several strengths of this approach. Switching conversation groups encourages people to stay engaged in the discussions, speak with a variety of people, and hear multiple points of view. Ideas are disseminated throughout the forum as participants bring them from table to table.

Each forum lasted an hour and fifteen minutes, starting with a brief presentation with slides given by one or two COMM 128B students. The presentation summarized:

- Current drought conditions in California and Governor Brown's mandate to conserve water;
- The steps SCU has already taken to reduce water use;
- The amount and percentages of fresh and recycled water that the campus currently uses for landscaping and personal uses;
- The value of deliberating about our individual and collective response to the drought;
- Communication agreements for the forum, including the need to speak for oneself rather than for others; listening to understand others, not just to refute them; sharing the airtime and avoiding interrupting others; and not making negative assumptions about others' beliefs and motives.

Participants were advised that the forums aimed to inform campus decision makers in Operations, Sustainability, and Residence Life, who were interested to hear students' thoughts.

Each participant then rotated through three tables, discussing a different approach to water conservation for 15 minutes per round.[1] At each table, the agenda involved:

- Reviewing the description of the approach and associated action steps in the issue guide;
- Discussing what participants saw as at the core of the approach;
- Writing on Post-It notes what participants saw as the two greatest pros and cons of the approach, as well as any new ideas for action steps.
- Asking participants to identify common themes in the discussion, but not requiring them to come to agreement about the issues.

At the end of the forum, the facilitators summarized the main pros, cons, and new proposals to the entire group. Students then filled out a survey in which they rated each approach and action step, and evaluated the forum.

Facilitation: All discussions were facilitated by COMM 128B students, who were trained by exploring deliberation strategies and role-playing scenarios during class in the weeks leading up to the forums. The role of moderators consisted of guiding discussions, encouraging students to consider all perspectives, and enforcing the communication agreements.

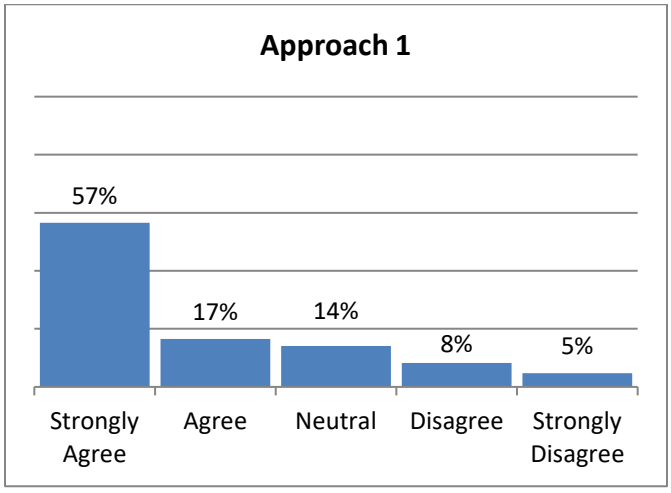
[1] Because the third forum was attended by a small group, they held all three rounds of discussion at one table. The small number of participants, lack of rotation between tables, and large room in which the forum was held made this the least lively discussion of the three forums. This confirmed the value of the World Café design for engaging students in the other two forums, where the format was fully implemented.

STUDENT OPINIONS

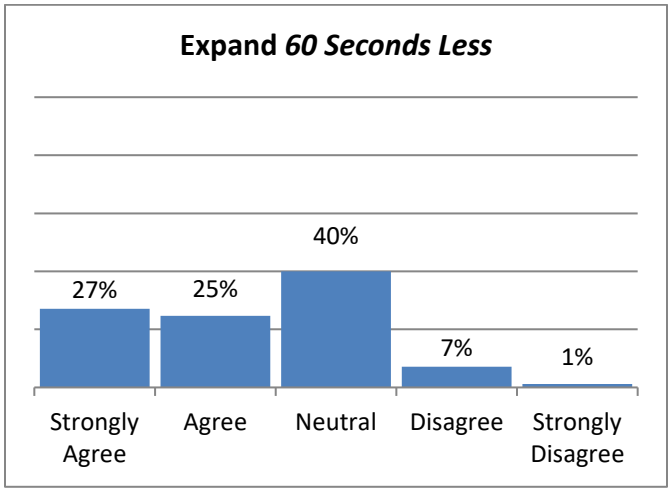
Approach 1. Educate the SCU community to cut water usage voluntarily

Below are the summaries of Approach 1 and related action steps from the issue guide; participants' ratings on the survey administered after the forum; and students' reasons for their views, which were collected on Post-Its filled out during discussion and open-ended questions on the survey.

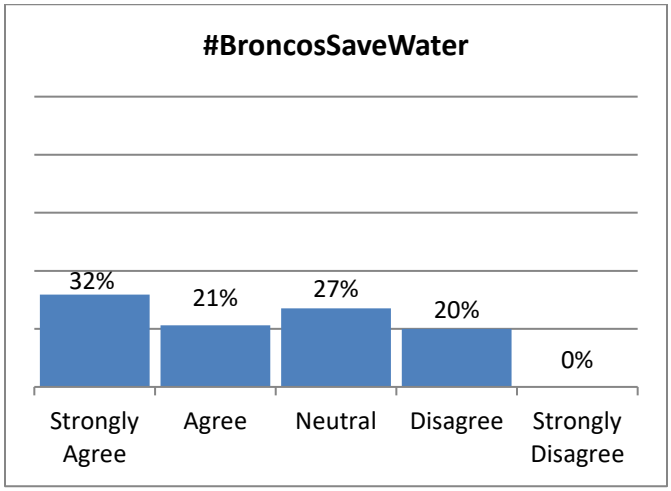
Approach 1: Santa Clarans care about sustainability and will rise to the challenge of conserving water if given more information about how to do it. Each of us could meet the goal of using five gallons less per day by taking a few simple steps, if we are reminded regularly. It is better for morale for us to embrace small changes in our personal habits willingly than have them forced on us. The university can continue to set a good example by eliminating the remaining use of fresh water for landscaping without changing the appearance of our campus much.



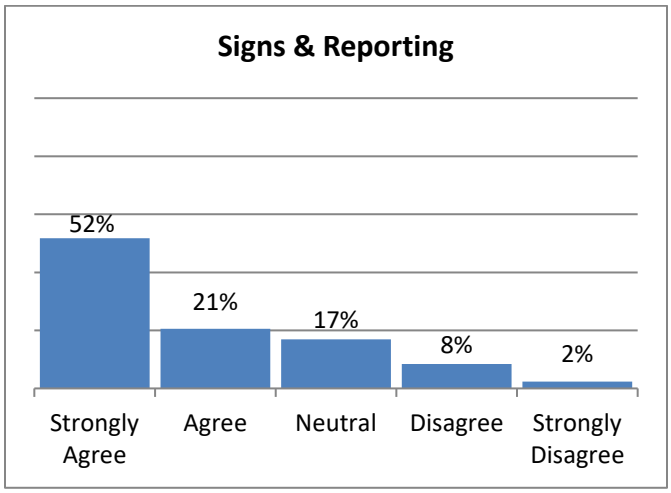
Educate the SCU community to cut water usage voluntarily.



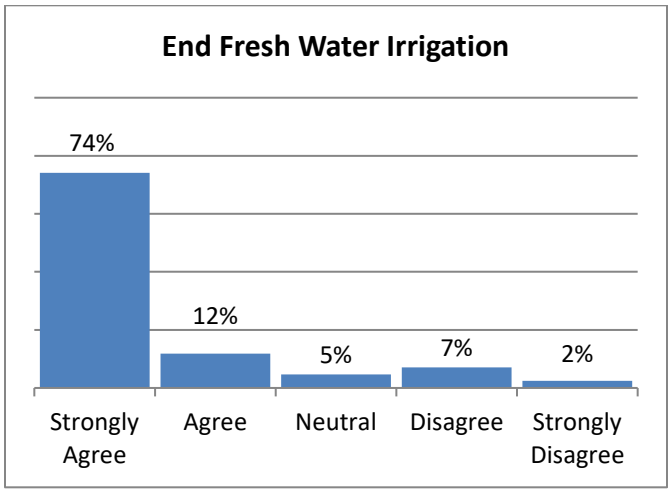
Expand the Associated Student Government's *60 Seconds Less* campaign, which asks students to cut showers by a minute or more and try turning off the water when soaping up.



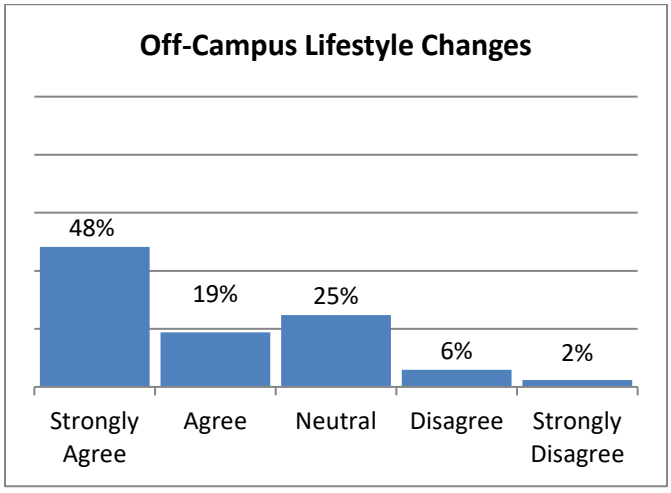
Encourage our peers to conserve water by sharing water-saving strategies in conversation and on social media at #BroncosSaveWater and publicizing our monthly water usage to inform the campus about whether we are conserving enough.



Post signs in bathrooms, around washers, and in halls reminding people to conserve and to call 408-554-4724 to report leaky faucets and sprinklers to the university.



Continue to eliminate remaining use of fresh water in landscaping by converting fountains to recycled water and using drought-tolerant plants in new landscaping.



Educate Santa Clarans who live off-campus to persuade their landlords to invest in water-saving fixtures and landscaping, and adopt other lifestyle changes that conserve water, such as eating less meat, reducing dairy, buying local products, and conserving energy.

IMPLICATIONS

Overall, the combination of education and voluntary conservation was strongly supported by participants at the forum. A majority strongly supported or supported the approach and each of its associated action steps.[2]

Participants believe education and voluntary conservation are cheap, easy to implement, allow students to choose whether to conserve rather than coercing them, reach on-campus and off-campus students, and have some power to enact change. Major drawbacks raised by participants include the fear that people will ignore voluntary efforts, take advantage because there are no repercussions, that education will not create a fast enough response, and the concern that asking for "voluntary" steps makes the drought seem less serious than it is.

Support was lowest for expanding the *60 Seconds or Less* campaign to reduce shower times and encouraging peers to share conservation efforts in conversation. We suspect that skeptics agreed with one student who wrote that these steps "are least likely to spur change."

The most highly supported action step was to continue to convert fountains and landscape from fresh water to recycled water and use drought tolerant plants.

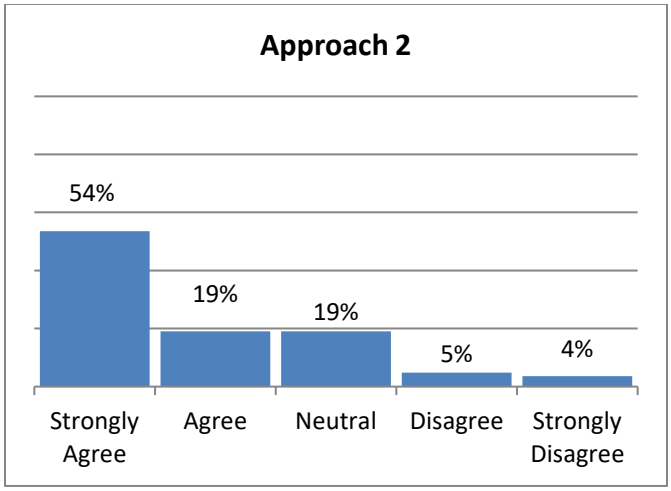
These conclusions suggest administrators will find widespread student support for eliminating fresh water irrigation and transforming the campus landscape. While voluntary measures were popular at the forum, there is an undercurrent of concern that education alone will not be enough to meet conservation targets, so voluntary measures may need to be combined with stronger steps to reduce water use.

[2] There were no statistically significant differences in responses by gender, year in school, California residency, or on-campus/off-campus residency.

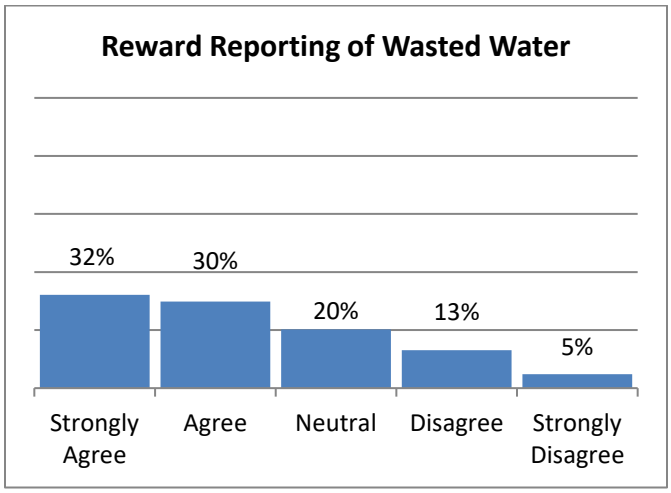
Approach 2. Create Incentives to Conserve

Below are the summaries of Approach 2 and related action steps from the issue guide; participants' ratings on the survey administered after the forum; and students' reasons for their views, which were collected on Post-Its filled out during discussion and open-ended questions on the survey.

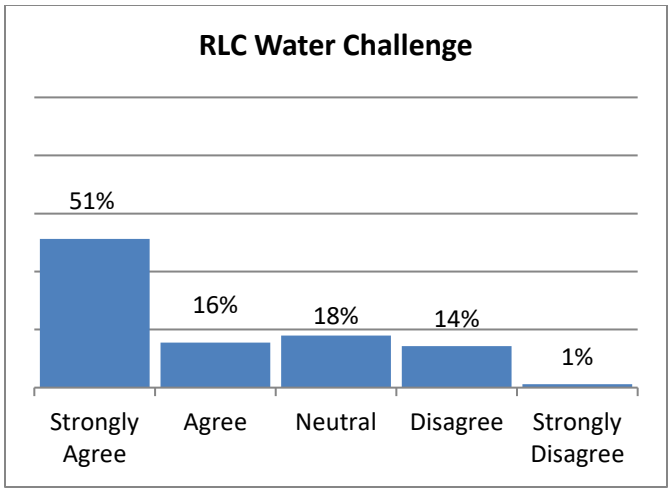
Approach 2: Positive and negative incentives can nudge us to act in our best interest over the long term, overcoming our momentary inattention and short-term desires. When we are rewarded for conserving, we are likely to use less water. When it costs extra effort, time, or money to use more water, people are likely to use less of it. Our personal freedom is not harmed if we agree to adopt these incentives for our own good. We can align our short-term needs with our long-term interests, yet still give ourselves choices.



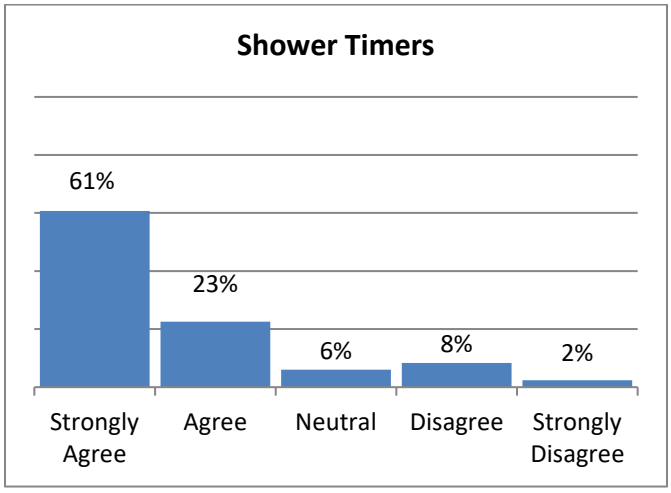
Create incentives to conserve.



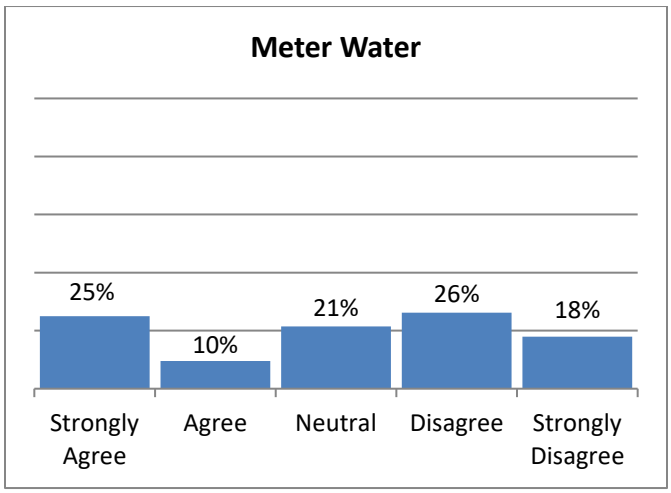
Reward people who report leaks, broken sprinklers, and the like, with prizes, such as coupons for free restaurant deliveries.



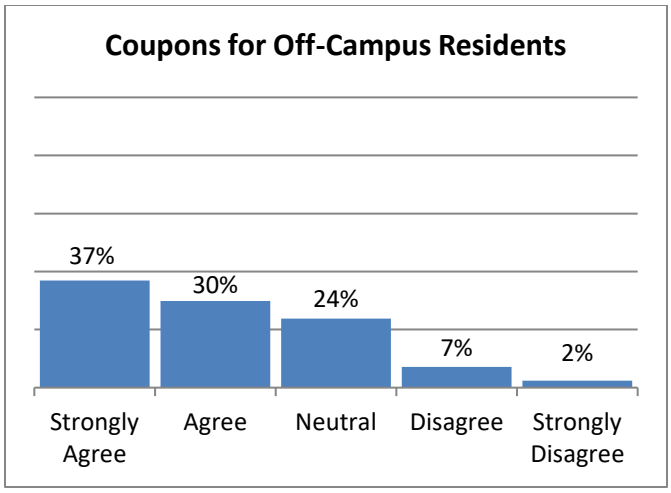
Engage the Residential Learning Communities in a "Water Challenge" competition, like the existing "Energy Challenge," in which the RLC that conserves the most water is rewarded with prizes.



Install shower timers in the residence halls that require users to press a button to get a minute of water at a time, rather than running continuously, but that let people get as many minutes of water as they want.



Put a price on water by installing individual water meters on each floor or bathroom, giving rebates to those who use less than average and charging above-average users more; charge for laundry loads based on how much water is used in the cycle chosen.



Give coupons to off-campus residents that reward low-water lifestyle choices, such as buying local produce at The Forge Garden.

IMPLICATIONS

In general, students in the forums liked this approach very much. Majorities favored the approach and all of the action steps connected to it, except for metering bathrooms or residence hall floors and charging heavy users more for water.[3] Many students objected that it would be costly for SCU to install meters and it would be expensive for students to pay more for water on top of high private school college costs.

The students who were in support of this approach liked it for several reasons:

- It does not force change the way mandatory steps do;
- Actions such as installing shower timers would educate students about how much water they use;
- It offers positive incentives, such as rewards, not just negative incentives;
- It introduces competition as a motive to conserve, especially in the RLC Water Challenge, which can be effective if the right prize is available.

Students perceived the drawbacks of this approach as including:

- Some people don't care enough about conserving to respond to incentives;

[3] Several differences emerged between subgroups of students.

- Females were somewhat more supportive than males of installing shower timers that let people get as many minutes of water as they want, with 88 percent of females saying they strongly supported or supported this step, compared with 76 percent of males.
- Males (43 percent) were somewhat more supportive than females (28 percent) of putting a price on water by installing individual water meters on each floor or bathroom and charging for laundry loads based on how much water is used in the cycle chosen.
- On-campus students were somewhat less supportive than off-campus residents of action steps that would restrict or charge more for water usage in campus bathrooms and laundry rooms. The difference was about ten to fifteen percentage points.
- Off-campus students were more supportive than on-campus residents of giving coupons to off-campus students to reward low-water lifestyle choices, such as buying local produce at The Forge Garden. Eighty one percent of off-campus students supported or strongly supported this step, while 57 percent of on-campus residents felt similarly.

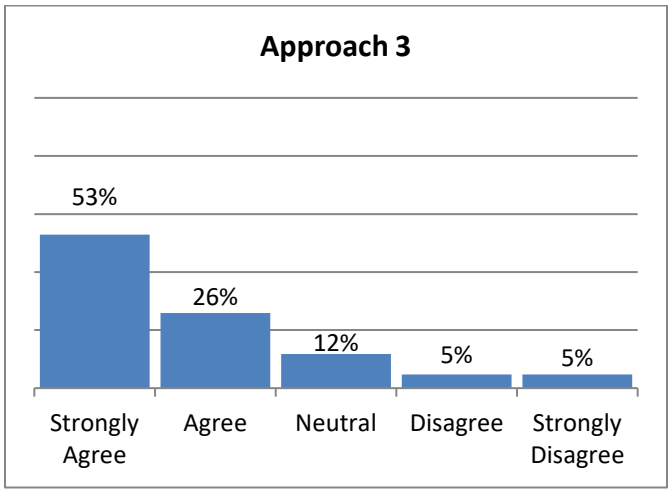
- It would be costly for SCU to install timers and putting a price on water makes SCU even more expensive;
- It may not be effective because it does not force students to change;
- The approach may be hard to implement.

The pattern of responses suggests that students were open to administrators creating positive and negative incentives to nudge people toward using less water, seeing this as both feasible and non-threatening. However, a majority did not support metering bathrooms or floors and charging for water use, which was perceived as costly. Perhaps most surprisingly, participants embraced shower timers that shut off water periodically, as long as individuals can meet their different needs by continuing to press a button that provides more water if needed.

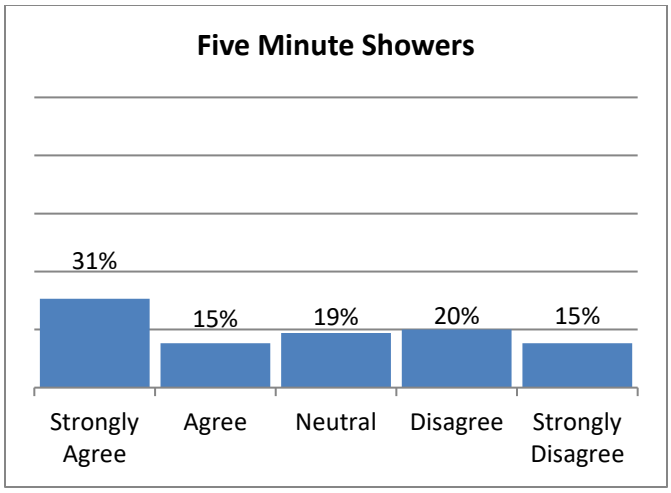
Approach 3. Recognize our new reality and require ourselves to conserve

Below are the summaries of Approach 3 and related action steps from the issue guide; participants' ratings on the survey administered after the forum; and students' reasons for their views, which were collected on Post-Its filled out during discussion and open-ended questions on the survey.

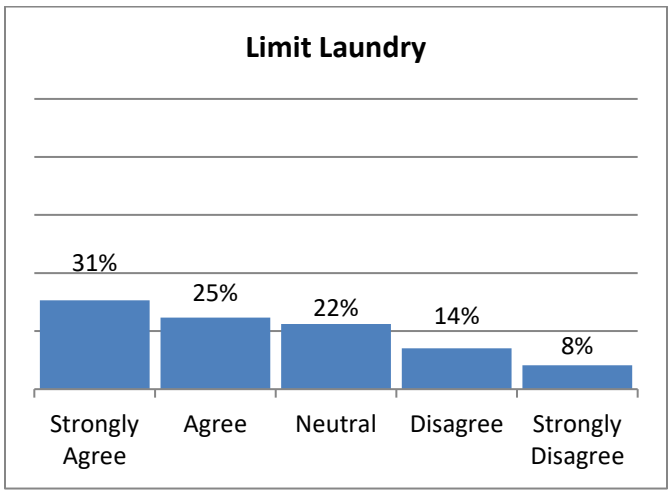
Approach 3: Climate change, population growth, and worsening droughts mean that we should view our current situation as the new normal, not a temporary shortage. We need to realize that once we use less fresh water, we will also produce less recycled water to irrigate our thirsty grass. We can adapt successfully if we all adjust our personal habits and redefine our conventional idea of what a beautiful campus looks like to match our climate. It's time to plan for a drier future by ensuring that we meet personal conservation targets and getting rid of non-essential lawns.



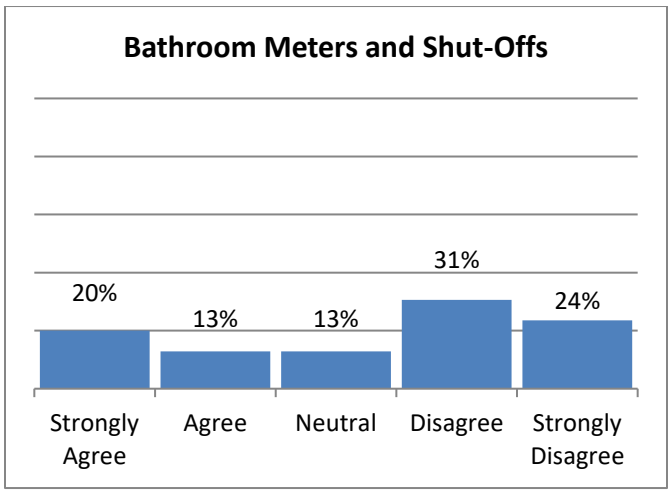
Recognize our new reality and require ourselves to conserve.



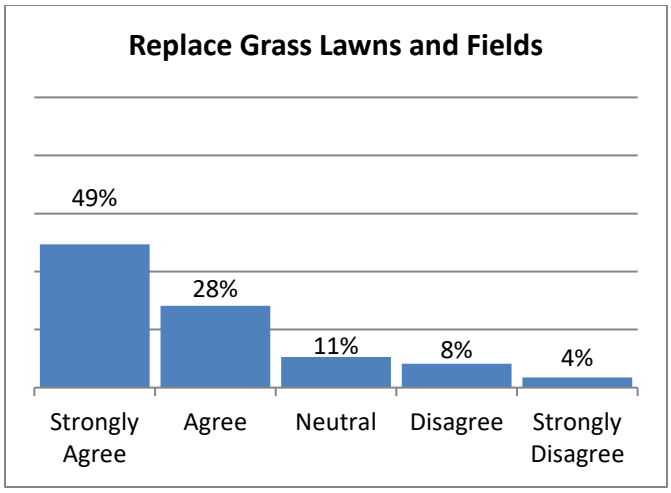
Install shower timers that limit users to five minutes maximum and then shut off for five minutes.



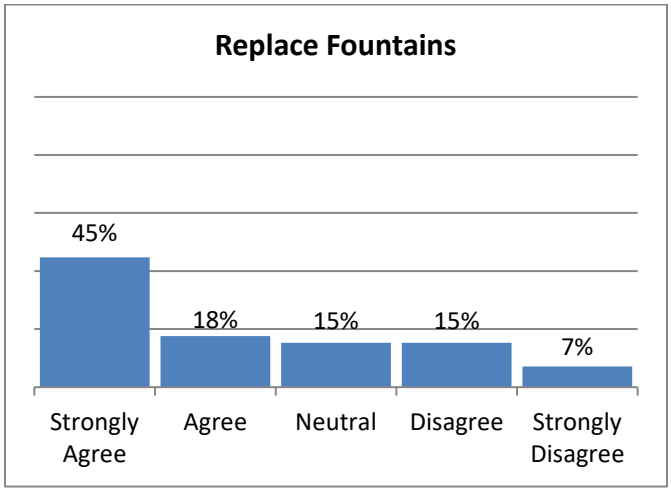
Limit the dollar amount that can be charged for laundry on Access cards to set a maximum number of loads per month.



Install water meters in each bathroom and adopt a tiered rate structure that charges high volume users more per gallon. Water could be shut off periodically in bathrooms that chronically overuse it.



Replace all ornamental lawns, which are not regularly used for essential events, with drought-resistant native grasses and plantings. Convert all athletic fields from grass to artificial turf.



Replace water fountains with rotating student art projects and performances, food or ice cream stalls, or other creative uses that liven up the campus.

IMPLICATIONS

A large majority of participants favored a mandatory approach but were more divided over the related action steps. The most popular step was removing grass by replacing all ornamental lawns and converting all athletic fields to artificial turf. A majority of students also supported replacing fountains and limiting loads of laundry.

The least popular steps among participants were limiting showers to five minutes and periodically shutting off water to bathrooms in which it is overused.[4] While participants recognized that these two approaches could be the most successful at saving the most water, they were seen as demanding the biggest sacrifices from students' daily lifestyles.

[4] Males (39 percent) were more supportive than females (28 percent) of adopting a tiered rate structure that charges high volume users more per gallon in bathrooms and shutting off water periodically in bathrooms that chronically overuse it.

Students saw the advantages of approach 3 as:
- Ensuring effective and immediate conservation by requiring students to make changes;
- Including strategies that address both landscaping and personal uses of water;
- Requiring all students to participate in conservation (an issue of fairness).

The major disadvantages that students saw in this approach were:
- Student resistance to and retaliation for required reductions in personal uses of water;
- Potential loss of students because of water rationing;
- Potential loss of donors;
- Water limits impact particular groups of students differently, depending on their water needs and ability to pay for water (an issue of equity);
- Several steps would be costly to implement.

The feedback on approaches 2 and 3 indicates that participants were largely accepting of dramatic and immediate changes in landscaping, but not as open to steps that impose uniform limits on personal uses of water, preferring the creation of incentives to conserve water in bathrooms and laundry rooms instead. Still, students acknowledged that restricting personal uses of water could be the most effective way to save water. Administrators should probably consider mandatory rationing of water for personal hygiene as a last step to take only if the drought worsens over the coming years.

ADDITIONAL STUDENT PROPOSALS

***Approach 1*:** During the course of dialogue about the education approach, several new action steps were proposed. The most common amongst new educational action steps, were:
- Spreading information and awareness about student water conservation through channels to which every student is attuned;
- Creating a new sustainability-themed RLC, Arrupe placement, or Critical Thinking and Writing class. These ideas could supplement the education action plan so that it could reach all students, including those who may not otherwise pay attention.
- Hold an off-campus meeting or event about water responsibility, much like the "Educated Partier" program which seeks to teach students how to hold more responsible parties.
- Sponsor a large-scale on campus event for all students to help educate the student community about water conservation steps and why they are necessary.

***Approach 2*:** There were three main categories of new ideas that were brought up in relation to creating incentives to conserve.
- The first category related to incentivized rewards. People expressed interest in food being a good reward, either through Groupon deals provided by the university, or free Bronco Delivery subscriptions and meals. These can be easy for the university

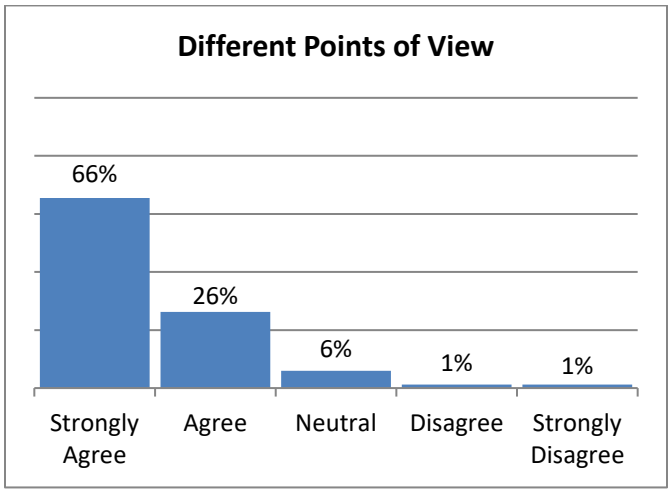
to supply when people notify facilities of water leaks or when people save a considerable amount of water in their dorm.

- The second category was in relation to the Short Shower Incentives. To expand on the five minute shower buttons, people wanted the showers to turn cold after pressing the button five times or more. This would encourage shorter showers. People also expressed that after the fifth push, water pressure should significantly decrease. This way water is saved and people are incentivized to take showers that do not exceed five button presses (20 minutes).
- The third idea was in relationship to laundry machines. Multiple people expressed a desire to operate laundry machines in the same way that we operate printing points: all students would be allotted a certain amount of laundry points at the start of each quarter and additional points could be purchased on demand. Athletes would be afforded more laundry points due to their need to wash more clothes after games/practices.

Approach 3: Students suggested several ideas related to mandatory conservation:

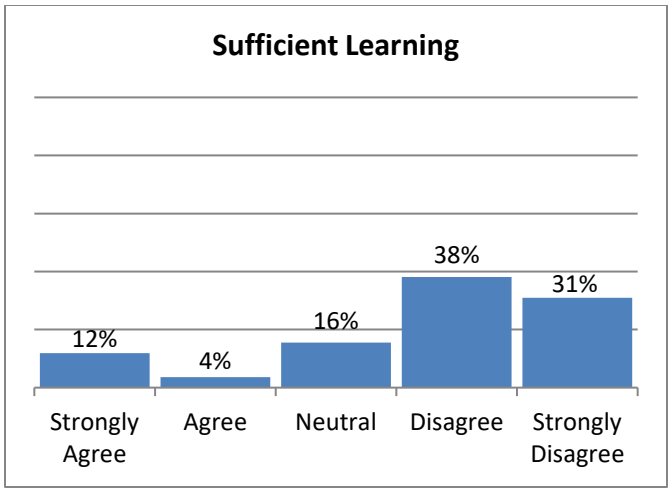
- Only replace some of the lawns but keep small areas for real grass.
- Create a twist on the "Drop a Brick" campaign by putting stones in the back of toilets to occupy space and reduce water needed to flush the toilet.
- Use less ice around campus and have designated days to limit meat – Meatless Mondays and Tofu Tuesdays.

EVALUATION OF THE FORUMS



I was able to explore different points of view on this issue.

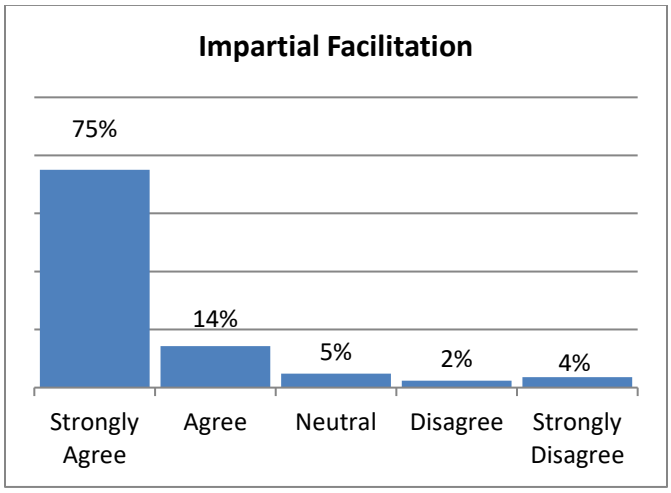
Participants felt that they were able to explore many different options throughout the discussions. A handful of students may have felt constricted by the presentation of ideas before group discussion.



I didn't learn enough to arrive at a well-informed opinion about the issue.

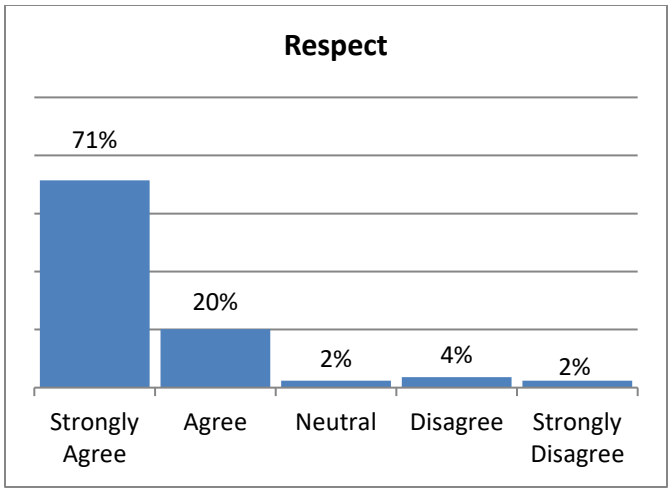
Most of the participants said they felt that they had enough information to make an informed decision, while 16 percent agreed or strongly agreed that they needed more information to arrive at an opinion, given the time constraints of the forum.

More non-Californians (22 percent) than Californians (11 percent) agreed or agreed strongly that they did not learn enough to arrive at a well-informed opinion. It may be that Californians are generally better informed about the drought within their own state than people from outside of the state.



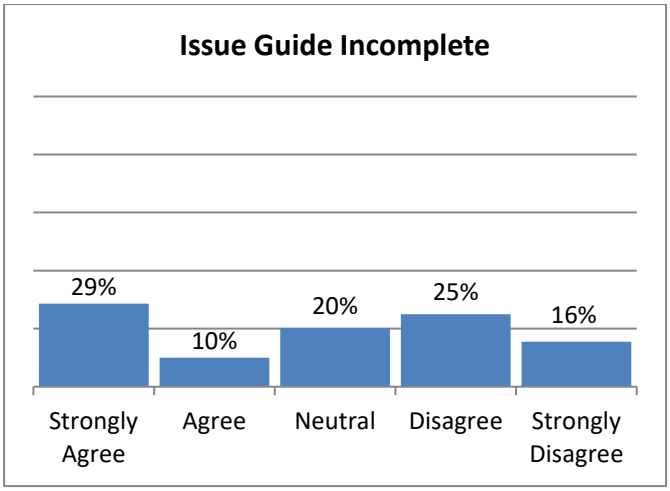
The facilitators led the discussions in an impartial manner, without biasing the conversation.

A large majority of the attendees (89 percent) agreed or agreed strongly that the facilitators led discussions in an unbiased manner, rather than siding with a particular view of the issue.



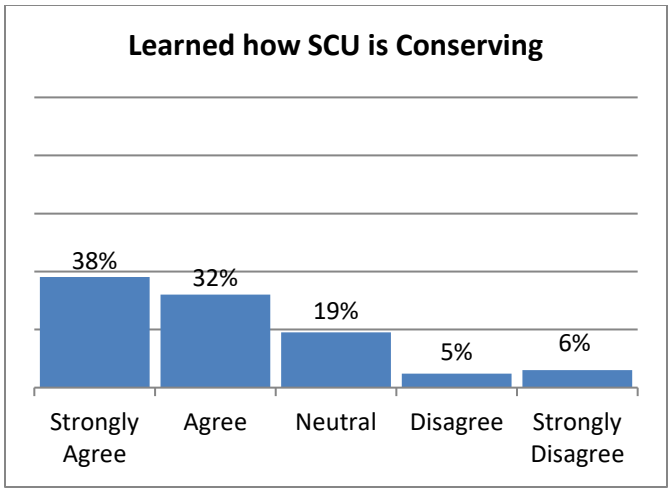
Everyone's ideas got a respectful hearing in the discussions, even if we didn't end up agreeing.

A large majority (91 percent) agreed or strongly agreed that their ideas were respected. This suggests that the forum allowed participants to share their thoughts and opinions, as well as listen to others.



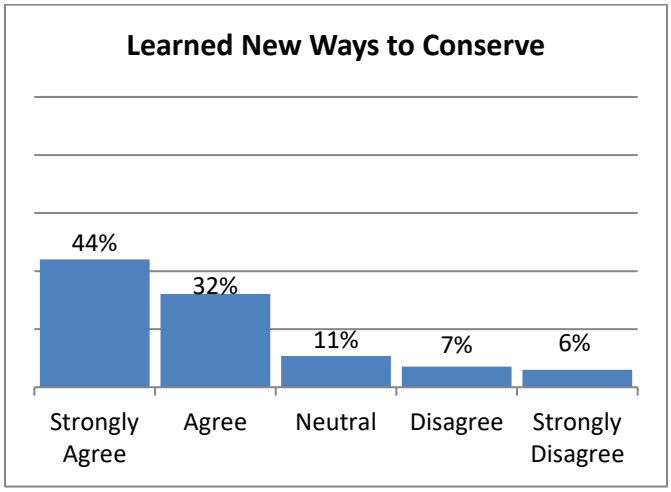
The written issue guide that was given to us left out a major perspective on this issue.

Thirty nine percent of participants agreed or strongly agreed that a major perspective was omitted from the issue guide, while the same percentage disagreed or strongly disagreed with this statement. Additional comments on the survey suggest that some participants wanted more attention paid to issues that were beyond the focus of the forum, such as how California's farmers should conserve water. Other participants asked for more attention to issues that were mentioned in a handful of action steps, such as steps that off-campus students could take and adopting low-water lifestyle changes (e.g., eating less meat).



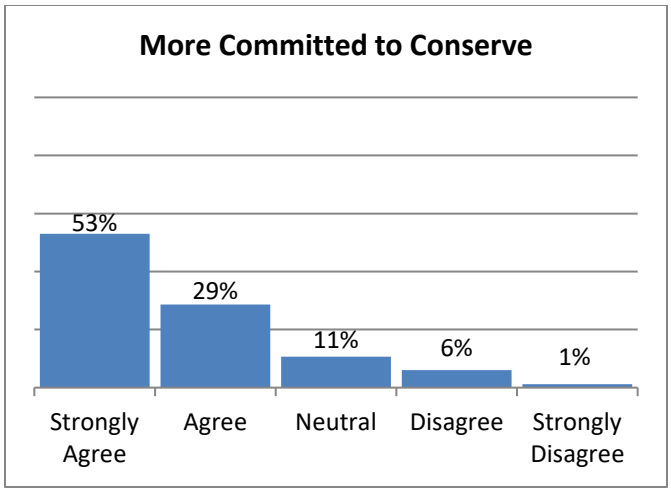
I learned more about how SCU is reducing water usage.

Seventy percent of people strongly agreed or agreed that they learned more at the forum about how SCU is conserving water.



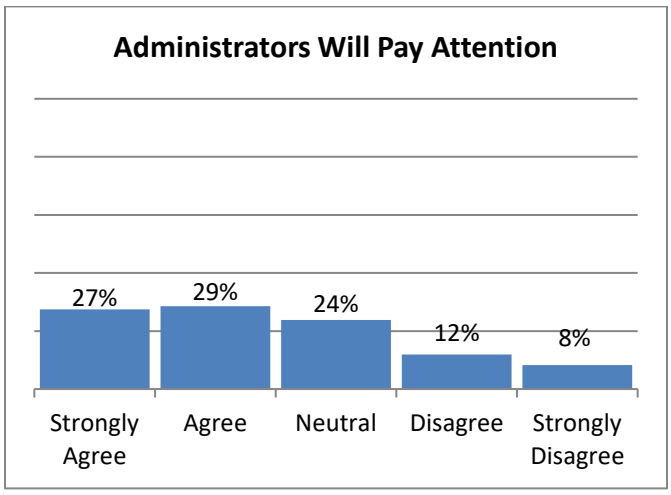
I learned some new ways that I can conserve water.

The forum was very successful in conveying new ideas to students. 76 percent strongly agreed or agreed they learned new ways to conserve water. Agreement was even higher among students from out of state. Eighty six percent felt they learned new ways to conserve, compared to 69 percent of students from California.



I feel more committed to conserving water than I did before this forum.

At the end of the forums, 82 percent of the students felt they were more committed to saving water. Increased commitment was felt by many kinds of students. California residents and non-residents, on-campus and off-campus residents, students from many different majors, and first year students through seniors all agreed or strongly agreed at rates of 76 percent or higher that they were more committed to conserve.



I think SCU administrators will pay attention to the opinions expressed at this forum.

Fifty six percent of the students who participated agreed or strongly agreed that SCU administrators would listen to the views expressed at the forum.

More off-campus students (68 percent) than on-campus students (46 percent) trusted that administrators would listen to their views. If on-campus students are closest to the administration and have more experience dealing with it, then it may be worrisome that they were less confident in SCU's ability or willingness to listen.

Environmental Science and Studies majors (19 percent) and Social Science majors (28 percent) were least convinced that administration would pay attention to the forum. This

may be because they have higher expectations for the university's environmental performance, which they feel have not been met fully.

However, it is encouraging that those who said they learned more about how SCU is reducing water usage were also more likely to think that SCU administrators will pay attention to the opinions expressed at the forum. This finding reveals students appreciate that SCU is taking steps towards water conservation when they are made aware of these steps. Increased collaboration and consultation with students will likely facilitate greater care and cooperation in conserving water among the student population as they recognize the school is doing its part.

Appendix: Issue Guide
How Should We Conserve Water at SCU?

THE ISSUE

In response to the historic California drought, Governor Brown has required the state to reduce water use by 25 percent and we may face further restrictions if the dry weather continues. This directly affects the SCU community. Even before the drought, the university dramatically cut its use of fresh water for landscaping by using recycled water and it is now shutting off fountains, but this will not be enough to meet the state's target. Even if we transformed the campus landscape further, each campus resident will need to cut our personal use of fresh water by at least five gallons per day, down from the 21 gallons per day we use now. Those of us who live off-campus will also have to conserve to help meet the state's target of 25 percent less water used. Water wasters may face $10,000 per day fines, which could increase students' housing bills and rents.

It is time to come together as a community and decide how to conserve this precious resource, on which all of us depend. This forum asks you to weigh the pros and cons of three different approaches we could take. How do you think we should reduce our use of water at SCU?

APPROACH 1. EDUCATE THE SCU COMMUNITY TO CUT WATER USAGE VOLUNTARILY

Santa Clarans care about sustainability and will rise to the challenge of conserving water if given more information about how to do it. Each of us could meet the goal of using five gallons less per day by taking a few simple steps, if we are reminded regularly. It is better for morale for us to embrace small changes in our personal habits willingly than have them forced on us. The university can continue to set a good example by eliminating the remaining use of fresh water for landscaping without changing the appearance of our campus much.

We should take the following actions:

1. Expand the Associated Student Government's "60 Seconds Less" campaign, which asks students to cut showers by a minute or more and try turning off the water when soaping up.
2. Encourage our peers to conserve water by sharing water-saving strategies in conversation and on social media at #BroncosSaveWater and publicizing our monthly water usage to inform the campus about whether we are conserving enough.
3. Post signs in bathrooms, around washers, and in halls reminding people to conserve and to call 408-554-4724 to report leaky faucets and sprinklers to the university.
4. Continue to eliminate remaining use of fresh water in landscaping by converting fountains to recycled water and using drought-tolerant plants in new landscaping.
5. Educate Santa Clarans who live off-campus to persuade their landlords to invest in water-saving fixtures and landscaping, and adopt other lifestyle changes that conserve water, such as eating less meat, reducing dairy, buying local products, and conserving energy.

Those who don't think this is the best approach may say:

1. Education is needed, but it will not be enough to change people's behavior immediately. The situation is urgent. California has already been in a state of emergency for two years and our reservoirs could be almost empty if we have another year of drought.
2. Voluntary measures allow some people to keep using as much water as they want, taking advantage of people who are sacrificing to use less water. We should all bear our fair share of the burden.

WHY THIS FORUM?

This forum is organized for students by students in Communication 128B – Dialogue and Deliberation. The three approaches presented here were developed by students in the course and do not necessarily reflect the views or plans of SCU administrators. After our discussion, we will ask for your views of each approach and action step through a brief poll. You can also suggest other actions. The results will be summarized and shared with campus leaders to inform their decisions about how we should meet the challenges facing us. They want to hear what you think.

WHY TALK ABOUT IT?

Deliberating with others before making up our minds allows us to:

- discover new information
- consider others' perspectives
- recognize inevitable trade-offs between options
- think about what's fair for everyone
- make better decisions than we would otherwise.

HOW DO WE USE WATER?

- More than 85 percent of our campus landscape is irrigated with recycled water. This represents roughly 40 percent of our total water use.
- In 2013, SCU used 81.7 million gallons of fresh water, around 21 gallons per person per day.
- Our most efficient shower heads use 1.5 gallons per minute.
- Our most efficient sinks use 2.2 gallons per minute.
- Our most efficient toilets use 1.6 gallons per flush.
- Our residence hall clothes washers use around 15-25 gallons per wash.

APPROACH 2. CREATE INCENTIVES TO CONSERVE

Positive and negative incentives can nudge us to act in our best interest over the long term, overcoming our momentary inattention and short-term desires. When we are rewarded for conserving, we are likely to use less water. When it costs extra effort, time, or money to use more water, people are likely to use less of it. Our personal freedom is not harmed if we agree to adopt these incentives for our own good. We can align our short-term needs with our long-term interests, yet still give ourselves choices.

We should take the following actions:

1. Reward people who report leaks, broken sprinklers, and the like, with prizes, such as coupons for free restaurant deliveries.
2. Engage the Residential Learning Communities in a "Water Challenge" competition, like the existing "Energy Challenge," in which the RLC that conserves the most water is rewarded with prizes.
3. Install shower timers in the residence halls that require users to press a button to get a minute of water at a time, rather than running continuously, but that let people get as many minutes of water as they want.
4. Put a price on water by installing individual water meters on each floor or bathroom, giving rebates to those who use less than average and charging above-average users more; charge for laundry loads based on how much water is used in the cycle chosen.
5. Give coupons to off-campus residents that reward low-water lifestyle choices, such as buying local produce at The Forge Garden.

Those who don't think this is the best approach may say:

1. There are so many little incentives offered to us already, like chances to win a raffle if we fill out a survey. People have started to ignore these offers and competitions, so additional enticements to save water are unlikely to work.
2. People have different water needs and not everyone can afford to pay more for water. Unless everyone agrees to use shower timers or to pay for using more water it will be unfair.

APPROACH 3. RECOGNIZE OUR NEW REALITY AND REQUIRE OURSELVES TO CONSERVE

Climate change, population growth, and worsening droughts mean that we should view our current situation as the new normal, not a temporary shortage. We need to realize that once we use less fresh water, we will also produce less recycled water to irrigate our thirsty grass. We can adapt successfully if we all adjust our personal habits and redefine our conventional idea of what a beautiful campus looks like to match our climate. It's time to plan for a drier future by ensuring that we meet personal conservation targets and getting rid of non-essential lawns.

We should take the following actions:

1. Install shower timers that limit users to five minutes maximum and then shut off for five minutes.
2. Limit the dollar amount that can be charged for laundry on Access cards to set a maximum number of loads per month.
3. Install water meters in each bathroom and adopt a tiered rate structure that charges high volume users more per gallon. Water could be shut off periodically in bathrooms that chronically overuse it.
4. Replace all ornamental lawns, which are not regularly used for essential events, with drought-resistant native grasses and plantings. Convert all athletic fields from grass to artificial turf.
5. Replace water fountains with rotating student art projects and performances, food or ice cream stalls, or other creative uses that liven up the campus.

Those who don't think this is the best approach may say:

1. Mandatory reductions can be coercive and inconvenient. Responsible water users may be punished if they share a bathroom with water hogs. If water limits are too low, people may go off-campus to do laundry rather than conserving.
2. The campus may become less attractive, including for prospective students, and for athletes who want to play on grass rather than synthetic turf.