

TAP THAT!

HSU TAKES BACK THE TAP

Spring 2010

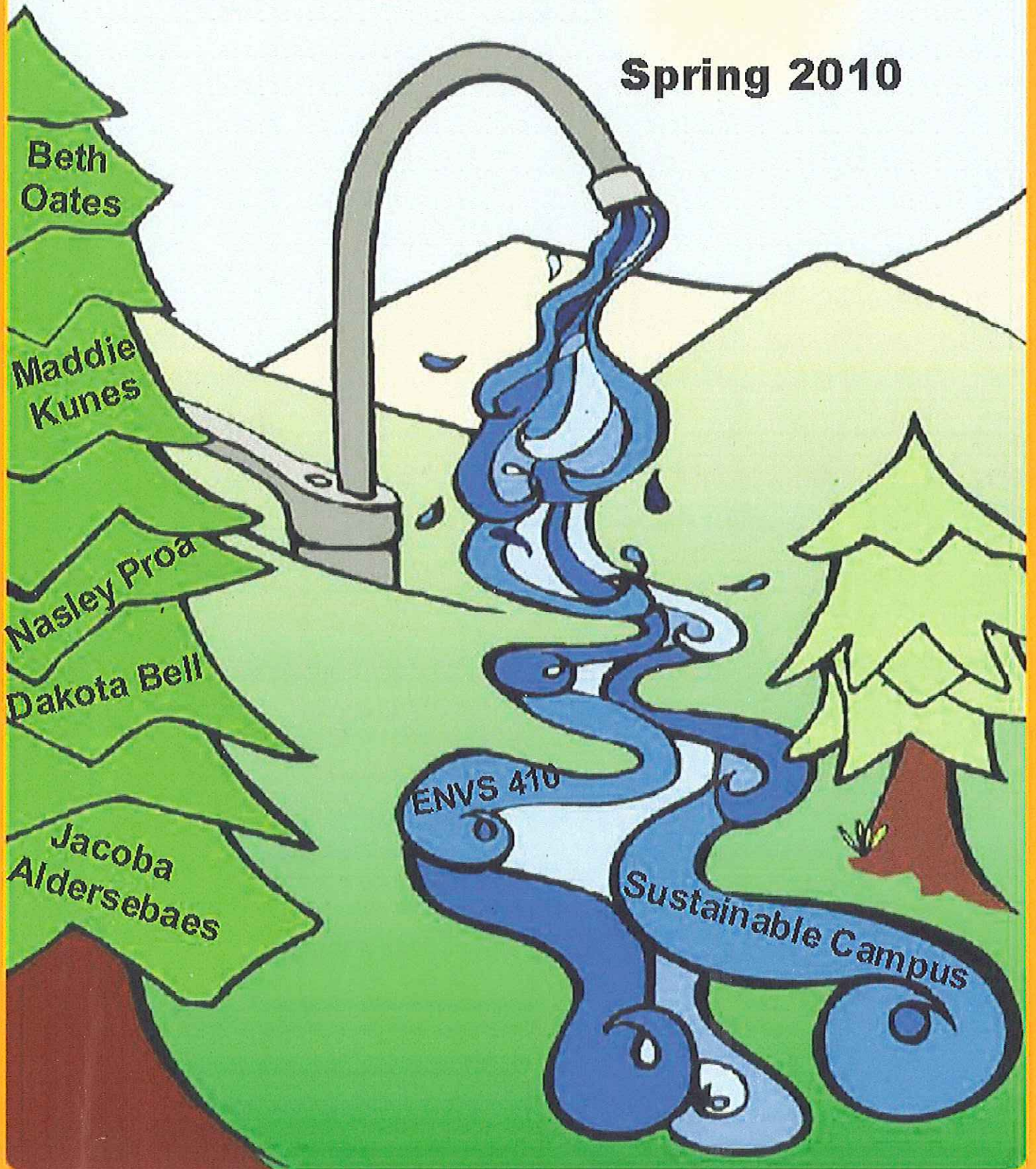


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Background and Problem Analysis

Introduction:

The consumption of bottled water in the United States and worldwide has increased at a rapid rate in the last ten years. According to H₂O'C Engineers, the rate of increase from 2000-2007 was over 10% per year. By 2011, the industry is expected to grow by 51% from 2006 levels (King, 2008). The United States is the largest consumer of bottled water in the world comprising over 25% of global sales (IBIS World, 2008). In 2008, 8.6 billion gallons of bottled water were consumed in the United States equating to 21 gallons per capita (Columbia Water Center, 2009). The sale of bottled water accounted for \$87 million in revenues worldwide in 2007 (King, 2008). The effects of this massive industry extend beyond the market, bottled water consumption has environmental, social, and health impacts as well.

Why We Drink Bottled Water:

To answer the question of why people drink bottled water, you need to understand that many people do not know the harmful effects that the bottling process has. When you are thirsty, your only thought is to cure your thirst. When grabbing a bottle of water from the shelf at a grocery store, it is not instinctive to think of how the bottle was made. One main reason that many people buy bottled water is convenience. Another reason is the falsely perceived idea that bottled water is cleaner than tap water. The truth is that some bottled water is tap water. Whatever the reason may be, there are many different groups and organizations across the country who are working very hard to change the myth of plastic water bottles being healthy for humans and the environment.

Embedded Energy and Climate Change:

The bottled water industry is extremely energy intensive. Not only is energy required to produce the bottles, but the purification of the water, transportation, distribution, and refrigeration of the water from source to site of consumption also require primarily fossil fuel sourced energy.

In the production phase, there is the creation of the bottles themselves. Plastic water bottles are comprised of a resin called polyethylene terephthalate (PET) which is made up of fossil fuels, usually oil or natural gas. According to H₂O'C Engineers in order to make one kilogram of PET, two kilograms of oil is required and three kilograms of CO₂ is emitted. In 2006, 900,000 tons of plastic was used for disposable water bottle creation alone, emitting 2.5 million tons of CO₂ into the atmosphere (Pacific Institute). This is equivalent to 17 million barrels of oil. Although exact numbers aren't available, it can be assumed that bottled water is not consumed at the source and thus energy is

required for transportation of this water, sometimes half way around the world. These are the two major energy inputs in the bottled water industry, but other sources cannot be ignored and still contribute to the wasted energy.

The energy used in the production of bottled water comes primarily from fossil fuel sources, including oil, natural gas, and coal. These sources all release CO₂ along with other greenhouse gases. These anthropocentric sources of greenhouse gases have been considered by many scientists to be largely responsible for global climate change. As previously stated, in 2006 the production of plastic water bottles alone contributed 2.5 million tons of CO₂. Based on current estimates, this is equivalent to the emissions of half a million cars. Considering the expected increase of 50% by 2011 and other emission sources including transportation, refrigeration, water purification, etc, it seems appropriate to say bottled water represents a significant source of unnecessary greenhouse gas emissions which are contributing to arguably the biggest global disaster the world faces today.

Pollution:

The pollution implications of bottled water begin with the manufacturing and transportation of the bottles. The plastic in most bottles is terephthalate (PET), which is made from crude oil, and the Earth Policy Institute estimates that more than 1.5 million barrels of oil are used annually. Besides the oil used to make the bottles, the amount of fossil fuels used to transport bottles for sale regionally or internationally adds to atmospheric pollution, which contributes to global warming as well. According to Hall, if bottled water was sold to consumers with no water in it, the environmental impact of the bottled water industry would still be significant in terms of pollution and waste. The slack regulations of bottled water are also contributing to pollution of the actual water within the bottle. City tap water must meet standards for certain cancer causing chemicals that can be found in water, but some bottling companies have persuaded the FDA to exempt bottled water from the same regulations. Once the consumer is finished with the disposable plastic water bottle, it is either recycled or discarded. Hall argues that plastic water bottles are one of the "fastest growing sources of municipal waste."

PET plastic can be recycled, but according to the Natural Resources Defense Council, only about 13 percent of bottles get recycled, and in 2005, "2 million tons of plastic water bottles ended up clogging landfills instead of getting recycled." The Clean Air Council found that Americans alone throw away 2.5 million bottles every hour (as opposed to recycling). These bottles are unnecessarily filling our landfills, which are beginning to close at a rate of two per day. Landfills come with their own set of complications, including potential leakage into groundwater of toxins leaching from plastics. According to Professor's House (2007), to save space in landfills, plastics are oftentimes burned in incinerators. When this is done, chemicals, petroleum, and fossil fuels used in the manufacturing process are released into the atmosphere, which contributes to pollution. Another issue with plastic is the fact that it takes over one hundred years to degrade. The exact amount of time it takes to degrade is still unknown because the first plastics ever made are still around today. Since it is difficult

to deal with overflowing landfills and our throwaway society, it is inevitable that some of our waste ends up in the ocean.

Over the past one hundred years, there has been a gradual accumulation of plastic waste that has become trapped in our marine systems. There is such a magnitude of plastics (many of which are water bottles) that accumulate in specific areas of the ocean that it is causing a type of whirlpool of waste. These whirlpools are called gyres, and are basically massive clumps of waste trapped in wave action (5gyres.org). The scale of the largest gyre is unimaginable—it is twice the size of the United States, and it is called the North Pacific Gyre. It is the largest of five known gyres around the world. The plastic in these gyres is gradually broken up into smaller and smaller pieces by wave action and sunlight, but never fully disappears. As the particles become smaller, it is easy for marine life to mistake them for food, which can lead to “internal blockages, dehydration, starvation, and potentially death” (5gyres.org). Another issue with plastic in the ocean is that it can act as a “sponge for waterborne contaminants such as...DDT...and other pesticides,” (5gyres.org) otherwise known as persistent organic pollutants (POPs). So if marine life are ingesting small plastic particles, they are potentially ingesting chemicals that can disrupt re-productivity and cause birth defects.

Bioaccumulation of pollutants like DDT from plastic ingestion is also a threat to the human population. For example, Williams and Ammann (2008) studied seabirds in Alaska to determine how much plastic debris they were eating from the surface of the ocean. They found that the birds were ingesting their regular prey (which itself was contaminated with pollutants from plastic) but they also found that this had implications with the pollutant loads consumed by humans. Commercially valuable salmon have similar diets to these seabirds (zooplankton, fish, and squid), which suggests that the fish were passing on the pollutant contamination to humans.

The issue of plastic water bottles and pollution spreads from the manufacturing of the plastic to what the waste becomes—sealed in a landfill, incinerated, recycled, or drifting forever in a marine ecosystem. It has the potential to pollute at each stage of use and should be curbed before we are faced with an even bigger dilemma.

Health and Safety:

Public concern for the safety and purity of drinking water has lured many to resort to bottled water believing the marketing that it is more pure than tap. However, according to the *Natural Resources Defense Council (NRDC)*, the independent studies performed on bottled water concluded that there are greater health and safety concerns with bottled water mainly due to poor regulations standards or lack thereof.

For example, bottles in which water is contained are made mostly of polyethylene, polycarbonate, and other toxic chemical compounds that are known to leach out into the water. This is especially true when a plastic bottle is subjected to temperature changes in which plastic expands and contracts releasing more heavier amounts of PET into the drinking water. Many chemicals are suggested to cause various health problems including cancer and birth defects (Environment California).

The Food and Drug Administration (FDA) regulates bottled water, but their rules are lax compared to the Environmental Protection Agency's (EPA) regulations on tap water. As far as the quality of water is concerned, tap water tests performed by the EPA include *Cryptosporidium* and *Giardia* which are two of the most common bacteria known to cause water borne disease outbreaks. The water cannot have any trace of E. coli bacteria which is used as an indicator for other harmful pathogens in water. These tests are conducted about 100 times a month (Center for Disease Control).

The FDA does not regulate most water sold in bottles. This is because the FDA does not regulate any bottled water that is bottled and sold within the same state. This exempts about 60 to 70% of bottled water sold in the United States. They also exempt carbonated water and seltzers. E. coli is the one and only pathogen bottled water companies are required to test. Testing only needs to be conducted once a week but with no set standard, any amount of coliform bacteria is allowed in bottled water and no proof is needed that the test was even performed.

Social Justice:

There are always social justice issues associated with a resource that has a high market value. Water is no different and produces many social justice issues from its extraction, bottling, and sale. The way in which most water for bottling is procured from municipal water districts leave local people at a constant disadvantage when water shortages occur. It impacts these communities greatly, and puts water extraction rights of the corporations without restrictions while the public is left to ration the water they have. Also people continue to buy bottled water the companies are making more money while municipal water districts are losing consumers. The prolonged effects of this may be seen when they have declining facilities and people are forced to buy bottled water, which puts the poor at a disadvantage. By taking water and making it a profitable good in the market it violates the right that every person should possess: access to clean, safe drinking water.

Other Anti-Plastic Water Bottle Action:

Anti-plastic bottle water campaigns are becoming much more common; the idea of stopping the use of plastic water bottles is catching on all over the country. There are sixty-four different campuses in the United States who have active Take Back the Tap chapters (University of Portland) including, to name a few, Penn State University, University of Oregon, Pacific Lutheran University in Washington, Bates College in Maine, Chico State, University of Montana, and Humboldt State University. There are other campaigns such as the Think Outside the Bottle campaign (Corporate Accountability International) that works to promote, protect and ensure public funding for our public water systems (thinkoutsidethebottle.org). This campaign also has chapters in Universities all over the country.

Other initiatives that have been taken are, effective February 1st 2010, University of Portland in Oregon will no longer sell plastic water bottles. They have been completely banned plastic water bottles from campus, including dining areas, vending machines and at concession stands for any events held at the University, as well as athletics (www.up.edu). Twenty-four other campuses have banned the sale of plastic water bottles including Harvard and University of Montana Western.

In the state of Washington, in February, Governor Christine Gregoire proposed a sin tax on all plastic water bottles sold. She proposes the tax to be one cent per ounce of water sold. She expects that the State of Washington would earn an extra 134 million dollars in extra tax revenue. (www.examiner.com).

As you can see, there are efforts to stop the sale of plastic water bottles all over the country. These efforts will hopefully continue to spread to publics all over the world. There are many things that can be done, and are being done by the countless hard workers in the aforementioned groups.

Annual Water Bottle Consumption:

There are 37.6 billion single serving PET bottles of 1 liter or less sold in the United States every year (Hoy 2009). The United States is the world leader in consumption of these bottles. This number has been increasing dramatically every year according to statistical data provided by the Container Recycling Institute. The consumption of single use plastic bottles requires many resources and has numerous negative impacts on the environment. Single use bottles contribute to many issues, and they supersede any boundaries of class structure or paradigm. This impact can be minimized here on Humboldt State University's campus with the large amount of PET bottles we consume annually. As a campus community we consume approximately 78,700 bottles annually. There are many avenues where bottles are sold on this campus however only three are open year round, and produce a large majority of the total sales of single use bottles. These three locations are the HSU Bookstore, South Campus Marketplace, and the Depot. We have a seasonal population on campus but it is important to realize the impact our community is having on the overarching problem of single use bottle consumption.

Problem Statement

~~HSU~~
HSU Takes Back the Tap aims to educate the community about the negative environmental, social, and health effects associated with bottled water at HSU.

reduce those impacts

Goals & Objectives

Goals:

- Reduce the use of plastic water bottles on campus and within the community.
- Promote the consumption of local municipal water and the use of reusable water bottles.
- Educate school communities and its affiliates along with the public about the adverse social, economical, health, and environmental effects of drinking bottled water.
- Promote ways to make potable local tap water more accessible, appealing, and convenient for the campus community.

Objectives:

- Reduce the number of single-use water bottles sold on the HSU campus by 25% within two years. This means sales will be reduced by 19,675 bottles by the 2011- 2012 school year, based on the 2007-2008 sales estimates.
- Our long-term objective is to have a 75% reduction in single-use plastic water bottle within 5 years. This means sales will be reduced by 59,025 bottles by the 2014- 2015 school year, based on the 2007-2008 sales estimates.
- Total phase-out within 10 years.

Weighing Alternatives

Bottle-Free Events

Pros: Bottle-free events will substantially decrease the waste produced for each event. They will also alert participants at the event to the issues of bottled water consumption and increase reusable water bottle sales. Bottle-free events are extremely effective because we are not giving the public a choice to act otherwise.

Cons: The difficulty with bottle-free events arise when we need to provide tap water to large amounts of people, especially on a hot day when water demand is high. Alternatives such as juice and soda are not as easily dispensed bottle free and therefore still waste plastic.

Drinking Fountain Survey

Pros: A drinking fountain survey will provide insight for potential reasons why people choose not to use the fountains and alert the Humboldt State University janitorial staff to any problems with the fountains that may occur. The survey will therefore improve the quality and aesthetics of drinking water available on campus. The effectiveness of this survey could potentially provide Take Back the Tap with useful information for the future. It would be a great future project to be able to enhance each drinking fountain that is found on campus. This survey will provide us with great baseline data.

Cons: The drinking fountain survey could be an inaccurate portrayal of fountains if the survey is conducted during different times of the day. The different times may affect each survey because each drinking fountain is set to a different cleaning schedule. The findings of the survey may also repulse some readers (if mold is found in a high percentage of fountains for example) and cause some people to discontinue use of drinking fountains.

Week of Action (Including Panel of Speakers)

Pros: Our Week of Action will outreach to the community and bring in influential speakers who provide further education on the topic of water politics. Our Week of Action will act as a collaborative meeting for people who are interested in water injustices and provide a place where innovation can occur. The effectiveness of this event could help get the Take Back the Tap name a more well-known reputation. By holding events all over campus this week, we will spread our name to the students as well as the issue we are fighting for.

Cons: Potentially low attendance for our water panel discussion due to a lack of marketing could cause a hinderance to our goals and objectives for this panel. Difficulty in coordinating the schedules of club members to participate in the week of action could

also create problems with organizing an event that will reach its maximum capacity of viewers. Potential financial constraints relating to bringing speakers to the area as well as creating signage and advertising in the local press can be difficult. We will need to pursue many different media outlets to maximize our outreach capabilities.

Bottle Exchange

Pros: A bottle exchange creates an incentive for people to drink tap water and also making it easier for those who want to, but can't afford a reusable bottle. By trading a reusable bottle that has been donated to us, for a plastic water bottle, we can ensure that the plastic bottle gets recycled correctly while also ensuring one less person drinking out of plastic.

Cons: Reusable water bottles are very expensive and therefore we would not be able to provide every student and faculty member with one. We would rely solely on donations of reusable bottles from local and national companies. The effectiveness of this event is subject to the ease of carrying a reusable bottle. We may be able to ensure that the person receiving a reusable bottle will continue to not drink out of plastic for that day, but after the day is over, they may go back to drinking out of plastic.

Sociological Survey

Pros: A sociological survey will provide us with a deeper understanding of why people consume bottled water and thus discover the root of the problem. This will allow us to create more effective means of reducing water bottle use on campus. We can use this information to tailor our other events to fit the specific criteria that will make people change the habit of using plastic water bottles.

Cons: This survey could be very expensive if we could not find a student or faculty member to do this for free. Several regulations regarding student surveys being conducted on campus that could be very difficult and time consuming to get around. The effectiveness of this survey, if done by a student, could possibly not be reliable information. We would have to ensure that this survey gets done by a reliable source who we know will not fudge data.

Installing Hydration Stations

Pros: By installing more Hydration Stations on campus we can bring access to clean, cool, filtered, and aesthetically pleasing water sources which would further encourage tap water consumption. The effectiveness of this event was proven by our previous club members. The Hydration Stations that are currently on campus have proven useful and successful.

Cons: Hydration Stations are very expensive and finding locations for these (and being granted permission for installation) can be very tricky. Getting awareness through advertising and signage is difficult, without this, they are completely ineffective because no one will know where they are if they are even known at all.

Film Screening

Pros: Film screenings help create awareness and educate the viewers about the negative impacts of bottled water consumption. Our film screenings in the past have been very successful. The attendance for each film screening proves the effectiveness of our campaign. There are multiple groups and agencies that are working towards clean and potable water for all. Because there is such an array of films we can show, we can provide multiple screenings each semester.

Cons: Getting access to these movies and permission to show them can be expensive. We need to follow all University guidelines and reserve rooms on campus to show these films. It is also difficult to get all of the members of the club to be able to come to the screenings because of conflicting schedules.

Tabling

Pros: Tabling is a great way to educate the surrounding community. It establishes our presence as a club on campus, creates awareness for the issues, and helps recruit volunteers for events. The effectiveness of tabling has been proven multiple times by volunteer sign-ups. We have a huge list of people who we have gotten to sign up to help during our tabling events.

Cons: Tabling can be time consuming. We need volunteers who are willing to table (even in bad weather) and tabling supplies, such as fliers, buttons, and stickers can be expensive. It is also hard to diversify our audience if we are tabling at the same time each week in the same area.

TBTT Library Display Filled with Plastic Water Bottles

Pros: By having a display filled with plastic water bottles, it makes a dramatic statement to educate and create awareness. This is a way for Take Back the Tap to advertise current events, such as Week of Action, panel discussions, and bottle-free events.

Cons: Collecting bottles from dumpsters is extremely time consuming. The library display case is very big and we may not be able to collect as many bottles as we need to fill the entire case. The effectiveness of this event is unknown. We do not have any way to record which people are paying attention to our display or even if they are aware of the issue at hand. Just because someone looks at a bunch of plastic water bottles, it does not mean that they will change the way that they live their daily life. It is unknown to us whether or not this way of advertising our campaign is effective.

Petitioning Legislation Creating a Tax on Plastic Water Bottles (including collecting signatures)

Pros: By petitioning legislation we can generate funds for the City of Arcata for other "green" projects. It adds a disincentive to buy bottled water and create awareness for the issues. It also provides Take Back the Tap with other media outlets. By getting the City of Arcata interested in our issue, we can further expand our audience and potential campaign members.

Cons: Petitioning legislation can be very time consuming. It could also be a fruitless effort without government support. We would need to have a contact on the inside to be able to begin our campaign. The effectiveness of this effort is also unknown because we have not started to infiltrate the government of Arcata yet for this campaign.

Work on Websites for Take Back the Tap

Pros: Our website helps create awareness and helps recruit volunteers. It updates information on issues, current issues and projects can be promoted, and people outside the local community can gain information. Internet is arguably the most effective advertising tool because it reaches a huge audience at practically no cost. The website is easily accessible to both club members and outside people who want to learn more. It is an easy, non confrontational way for people to become aware of the issue without much effort.

Cons: We limit our audience to only internet users, or people who have access to the internet. Our website, or nay website, requires advanced skills to be able to operate a computer and to navigate around the world wide web.

Workshops

Pros: Workshops provide a more in depth educational opportunity to interested individuals. They increase awareness and provide an arena for discussion and feedback which can be beneficial for future presentations and other listeners.

Cons: Some workshops can be lengthy and might not have a large audience. Lack of resources to fully promote event can be detrimental and lead to wasted time. It may also be difficult getting people to actively participate in discussion panels.

Implementation Strategy & Timeline

January

Planning

The TBTT club reconvened after winter break to establish a tentative schedule for the semester. We established a need to try to reach out to the campus and to the community. Plans were made for the entire semester. We started talking early about events that would not take place until later in the semester. We started planning for the Career Expo, Social Justice Summit, the library display, our Week of Action, Big Time, the Plan It Green Conference, various film screenings, and eventually graduation. This was a great start to our semester.

Tabling

It was decided that Thursdays would be TBTT's weekly tabling day. We would set up on the quad and have a minimum of two people at the table at a time. The members of our club would educate and answer any questions the public had about the ever growing water issue. Tabling will continue throughout the entire year pending good weather. This is a great way to easily educate the campus community on this issue, as well as recruit new members to join our club.

Drinking Fountain Survey

It was decided among many group members that a drinking fountain survey should be performed. This survey would assess the quality and aesthetics of each drinking fountain on campus. Group members would start out by mapping where each drinking fountain is and by rating on a scale of 1-5 on various qualities of the fountain and surrounding areas. Things to be evaluated in this are aesthetics of the drinking fountain itself, water flow, and quality and taste of water. We hope to have this completed by the end of the semester and use the data gathered in future projects.

Capstone Group

Specifically for the capstone class, the five group members met up several times to brainstorm ideas and work on assignments that were due during this month. This was a great way to finalize our group and to start working as a team.

February

Movie Screening

On Friday February 19th the club organized a preview showing of *Tapped* in order to make sure the members present at the event would be able to answer questions regarding the movie. The movie screening was held during the evening on Thursday, February 25th in the Kate Buchannan Room. Over 80 people showed up, we also set up a table with information and a picture display, with pitchers of tap water and popcorn for participants. Nasley and Dakota, along with a few other members of Take Back the Tap were present to answer questions after the movie.

Bottle Free Events

As part of the HSU TBTT campaign we are advertising our services to make events on campus bottle free. On Friday, February 26th our services were used to make the Career Expo on Campus a bottle free event. The club made sure that we had cups and we rented large Cambros from dining services and provided tap water to over 200 representatives at Career Expo. Members also donated their Brita Filter Pitchers for the day to provide filtered water we also provided sliced lemons and mint. Members present included Jacoba, Beth and several members of green campus and a few TBTT volunteers.

We recruited volunteers for this event and obtained a food grade potable hose in order to hygienically fill the Cambros with tap water. We used a maintenance room nearby to fill all the Cambros prior to participants arriving. This provided a good preview of a few obstacles we might have to overcome at other bottle-free events. It was definitely good training for bigger events.

Clubs Coalition Meeting

On Friday, February 26th HSU Clubs Coalition had its first meeting. The Clubs Coalition is an organization that tries to unify all environmental and social clubs on campus. This was a good opportunity to gain support from other clubs and learn about events that we could participate in. For example we will be tabling at an upcoming CCAT event. The coalition is a good resource for volunteer lists.

Library Display

This is the month when members of our group started to go regularly to the Samoa facility to gather plastic water bottles for our library display. The members primarily involved in this were Beth, Jacoba, and Dakota. Collection occurred several times per week and gathered approximately an average of two bags per outing.

March

Graduation

One of our club members made contact with Mary Kay Hartman who works in the Marketing and Communication department on campus and is the Commencement Director for HSU. They were looking for a new group on campus to run the concession stand for graduation. Because we were working so hard on campus trying to make various events bottle free, they thought it would be a great idea to have graduation bottle free as well. HSU Take Back the Tap club was awarded the privilege of planning bottle-free graduation commencement along with running of the concession stand which will hopefully prove to be a huge fundraiser for the club.

Most of March was spent planning for this event. We had weekly two hour meetings every Thursday in Harry Griffith Hall room 204 to plan this event. We needed to add this extra meeting time because there was too much to get done during our regularly scheduled meeting time. Planning for this event will continue until May.

Social Justice Summit Workshop

Water privatization is just as much as social issue as it is an environmental issue and therefore we filled out an application to do a Workshop for the Social Justice Summit. Our workshop was accepted by the committee. TBTT was also asked to provide an insert for the Social Justice Summit Program.

The Social Justice Summit was held on March 6th at 2:45 in Goodwin Forum. Nasley, Suzuka, and Juliene presented the workshop to 12 attendees. Also present were Jacoba and Beth. Part of the workshop included an interactive activity where participants had to try and assemble the lifecycle of bottled water (see Appendix I).

Film Screening

On Thursday March 4th, *Tapped* was playing at the Arcata Theater and Lounge. It was hosted by the Humboldt Baykeepers. Multiple members of our club went to show support for the movie and the organization including Beth, Maddie, Jacoba, Nasley, and several others. The show attracted many community members as well, which is a great way to extend our educational films to the community.

Beth of TBTT made contact at this event with Pete Nichols (Director) and Beth Werner (Outreach Coordinator) of Humboldt BayKeepers and a strong relationship was formed that will hopefully continue in the future on an alliance for the promotion of local water consumption.

Library Display

During this month, members of our group continued to “dive for bottles” at the facility on Samoa. On Friday, March 19, the group met and had a bottle cleaning party (see Appendix F for pictures). This is where all of the bottles were washed and dried to be placed into the library display.

Water Conference

The weekend of the 27th of March was the water conference in Portland, Oregon. Jacoba, Sarah, and Nasley drove to Portland to attend the University of Portland conference. The University of Portland just recently banned the sale of plastic water bottles on campus. There were many panels to attend and it proved to be a great opportunity to learn more about water issues. The keynote speaker was Maude Barlow who sits on the board of Food and Water Watch and holds many other respected positions.

April

Donation Drive

Beth and Kylee went on a donation drive by writing over 20 donation letters to local businesses for donated food, coffee, and other supplies to use/sell during graduation. They were successful in receiving donations equivalent to over \$600 from Beachcomber Café, Signature Coffee Co., Sunrise Rotary Club of Arcata, WinCo, Safeway, Los Bagels, Wildberries, and the Humboldt Bay Municipal Water District. Please see Appendix D for an example of our donation letters.

Week of Action

April 12th through April 15th will be Take Back the Taps week of action. There are events planned for every day during this time, and we also will have the library display reserved for this week.

Monday April 12th, we have planned a panel discussion called “Water is Life.” This panel will include professors from HSU, a speaker from Humboldt Baykeeper, a speaker from Humboldt Bay Municipal Water District, and our keynote speaker Debbie Davis of the Environmental Justice Coalition for Water.

Tuesday April 13th, we will be screening the documentary “Blue Gold: World Water Wars” which depicts numerous worldwide examples of people fighting for their basic right to water.

Wednesday April 14th, the screening of “Flow: For the Love of Water.”

Thursday April 15th, we held a “Life of Bottled Water” workshop. This is an interactive workshop that will discuss the numerous phases in the life of bottled water, focusing largely on the embedded energy and associated social injustices. The same activity used in the Social Justice Summit was used here very successfully.

The winners of our bottle guessing raffle were announced on the quad at noon.

Library Display

We have collected a large amount of water bottles over the course of this semester in an effort to fill the library display with used bottles. This display will exhibit our themes that our organization embodies while using used water bottles as a key visual display. See appendix for photos.

Also, in front of the library display was a raffle. The object was to guess the number of bottles in the library display. The winners received gift certificates from Rita’s, Beachcombers, and a few other participating local businesses. Please see Appendix K for the bottle analysis Beth created for the display. There were approximately 3,500 bottles in the display case.

Big Time

This event occurred on April 10th in the Lumberjack Arena on the 2nd floor of the kinesiology and athletics building. It is free to the public and TBTT sponsored it as a bottle free event. The event went from 11am-9pm and we had 15 volunteers as well as our club members (Beth, Kylee, Dakota, and Sarah) to table and provide water for individuals. There was an estimated attendance of 1000 people. This was the first event in which we used our new potable 35-gallon water jugs. We used this event as a test of how we will manage the graduation ceremony in May and create a seamless bottle free event. We found a few kinks in the system that will need to be worked out before graduation. Please see Appendix G for pictures of the water container at the event.

PlanIt Green

The Arcata Community Center hosted PlanIt Green this year. We organized 6 volunteers and had many club members table at this event. We used this collection of like-minded organizations and individuals to spread the word about our organization, what we are all about, and to network with other groups to make our events and goals more effective and hit a larger percentage of the community.

Mass-Media Campaign Materials

Dakota, Beth, and Jacoba, along with TBTT members Sarah and Kylee wrote and recorded two 30-second public service announcements to be distributed to KRFH, Humboldt State University's radio station, and hopefully played in the following semesters. Two informative posters were created which will be hung on campus along with two press releases about the campaign which will be sent into local and campus newspapers. Please see appendices B and C for examples of these posters and press releases.

SET (Science, Engineering, Technology) Conference

Nasley and TBTT member Suzuka participated in the SET Conference by setting up educational activities for the children who attended relating to effects of bottled water and the preciousness of our local water resources. This event included hundreds of children and their parents and proved to be a great opportunity for our members to spread information about water to even the most amateur consumers. Please see Appendix G for pictures of this event.

May

May Day Festival

Nasley tabled at the CCAT (Campus Center for Appropriate Technology) which had hundreds of attendees, many of which were young kids. The tabling was an opportunity to educate these impressionable kids, along with their parents, about the effects of bottled water on our health, community, environment, and pocketbook.

Bottle Free Graduation

"Green graduation" will be the first bottle free graduation held at Humboldt State University. Last year over 1,500 bottles of water were sold and even more were given out for emergency purposes. February through April consisted of hard work to prepare for this huge bottle free event, where we'll be expected to serve 20,000 guests. This included researching and purchasing water containers, paper cups, concessions stand supplies, asking for donations, and recruiting volunteers.

On graduation day (May 15), we will have 75 volunteers manning six water stations during all three graduations. There will be at least three TBTT members working the concession stand at all times. The proceeds from the concession stand (expected to be at least \$1000) will go towards more education and outreach materials and will provide capital for future projects TBTT wants to pursue.

Monitoring and Evaluation

Humboldt State University's Takes Back the Tap campaign will evaluate and monitor all progress by the successes of our plastic bottle-free events, our drinking water fountain survey, our week of action, and our volunteer recruits. Each member of the club has been working throughout the semester to maintain the success of our club. We are a fairly new organization on campus and need to preserve a solid, trustworthy reputation to ensure future success

First off, the success of our plastic water bottle free events can be measured by feedback from the event organizers. We have put on multiple bottle free events including the career expo, Big Time, and other multiple events on campus. We also have other events in the future, such as the commencement ceremonies for graduation that will be held as bottle free. HSU's Takes Back the Tap organization continues to be recommended by previous event holders. We are a responsible group that has proven that events on campus and otherwise, can be held without the use of plastic water bottles.

Our drinking water survey will be of great use for the organization in the future. We can use this information as baseline data for any repairs, improvements or renovations that will be needed for these water fountains. We are trying to make the public want to use tap water from water fountains. If the fountain is not clean, or the water tastes bad then the public will continue to buy their water. By keeping the water fountains on campus up to par, we can ensure the ease of having free, potable water in every building on campus.

Our week of action can be measured by attendance. By making people aware the injustices associated with the use of plastic water bottles, we can take action. By holding movie showings and panel discussions, we can generate support in mass efforts. Our library display during our week of action can be used as a great media for educating the general public that goes to Humboldt State. Many people go to the library during the week and walk by the library display. This attracts many people to read and understand the harms of plastic water bottles. We wanted plan to grab people's attention to the library display with the hundreds of plastic water bottles that will be placed inside the display.

Recruiting volunteers is a great way to measure and monitor our campaign. If we cannot gather more people to join then we are doing something wrong. Many of our volunteers are graduating seniors, and to ensure the continued success of this organization we need to recruit. We are holding multiple volunteer meetings this semester to gather more club members. We are also recruiting for our bottle free events.

The evaluation process comes from many different aspects on campus. We are evaluated through students, through other clubs and groups on campus, and through faculty. We collaborate with Green Campus, the Natural Resource Club, WRRAP,

Service Learning, CCAT, Dining Services, Plan Operations, HSU Athletics, and the City of Arcata. We have good working relationships within these groups. We would love to continue these relationships while working with other groups both on campus and in the community.

Campaign Reflection

Changes We Would Make

This past semester has been very successful. We have worked very efficiently with the entire Take Back the Tap campaign on campus. We feel that we were very active throughout the entire semester and have had multiple successes. Although many things were successful, there are changes that we would make looking back on our project. The following lists the changes that we would suggest for next semesters class:

- We would have spent more time generating members for our club. Most of the members of Take Back the Tap members are graduating this May. Next semester should spend most of our time trying to gain support so the club can continue with its progress. Expansion of the club will be important for its survival.
- Communication between club members needs to improve. Because we were so busy this semester a lot of communication was lost between members. Many ideas were finalized without the consent of the entire group.
- Weekly tabling needs to improve. This will improve our reputation on campus as well as letting people know we are a club. We can also recruit volunteers through this method of outreach.
- Delegating responsibility to less active members of the club. Many of the responsibilities were taken on by a main players of this campaign when less active members were available to help, but were neglected.

What We Learned

We learned that marketing is very important to get people involved. Signage is very important to gain any kind of following for volunteer meetings or bottle-free events. We held a few volunteer meetings this semester that had very few attendee's which we thought could have been better advertised.

We learned that emailing is not the solution to everything. Not everyone checks there email every day. It is much more proficient to talk to people in person during scheduled office hours. Some people are also very busy during their day and sometimes they do not have time to email you back in a timely manner.

It is important to have clear leadership within a group with so many active members. All of the members in this club are very active within the university community. By utilizing all of our connections it can be confusing who actually is the leader of our club is. We have learned that starting early on projects like we did this year has been very beneficial to the quality of our events. We started early in the semesters for all of our events and we have had successful outputs. By starting early we have also created a less stressful atmosphere to complete our work in.

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Appendix A: Drinking Fountain Survey

Introduction and Methods

The drinking fountain survey was conducted on nearly all drinking fountains on campus. All fountains were surveyed except some of the dorms because they were inaccessible to group members. The drinking fountains were scored according to the presence of five undesirable aesthetic traits, which can suggest reasons why people decide not to drink tap water on HSU's campus. The five traits are the presence of buildup (lime scale, hard water, etc), mold, weak stream strength, debris in drains, and poor taste. The buildup was mainly green or white in color. The presence of buildup was detected on the drinking fountain faucet, in the bowl, or on the drain. The presence of mold was mostly detected around the drinking fountain drain and was normally black or pink. Weak stream strength was determined by the inability to fully fill a 16 ounce stainless steel water bottle. Debris in drains included old food, garbage, and bodily fluids. Poor taste was recorded when there was a metallic taste detected. All poor traits were easily detected by the naked eye and would be noticed by anyone bending down to use the drinking fountain.

Each individual drinking fountain was given a numerical score according to the presence of any or all of the undesirable aesthetic traits. The maximum score a drinking fountain can receive is a 5, which means it is the most undesirable. A drinking fountain with a score of 0 has no undesirable traits. To achieve the accumulative score of 0 to 5, each specific trait was assigned a score of 1 for the presence of one of the trait, while a score of 0 meant that the trait was undetected. For example, if a drinking fountain had no buildup, it would receive a score of 0 for that trait. If it did contain buildup, it received a score of 1. This was the same case for the remaining four traits.

Observations and Recommendations

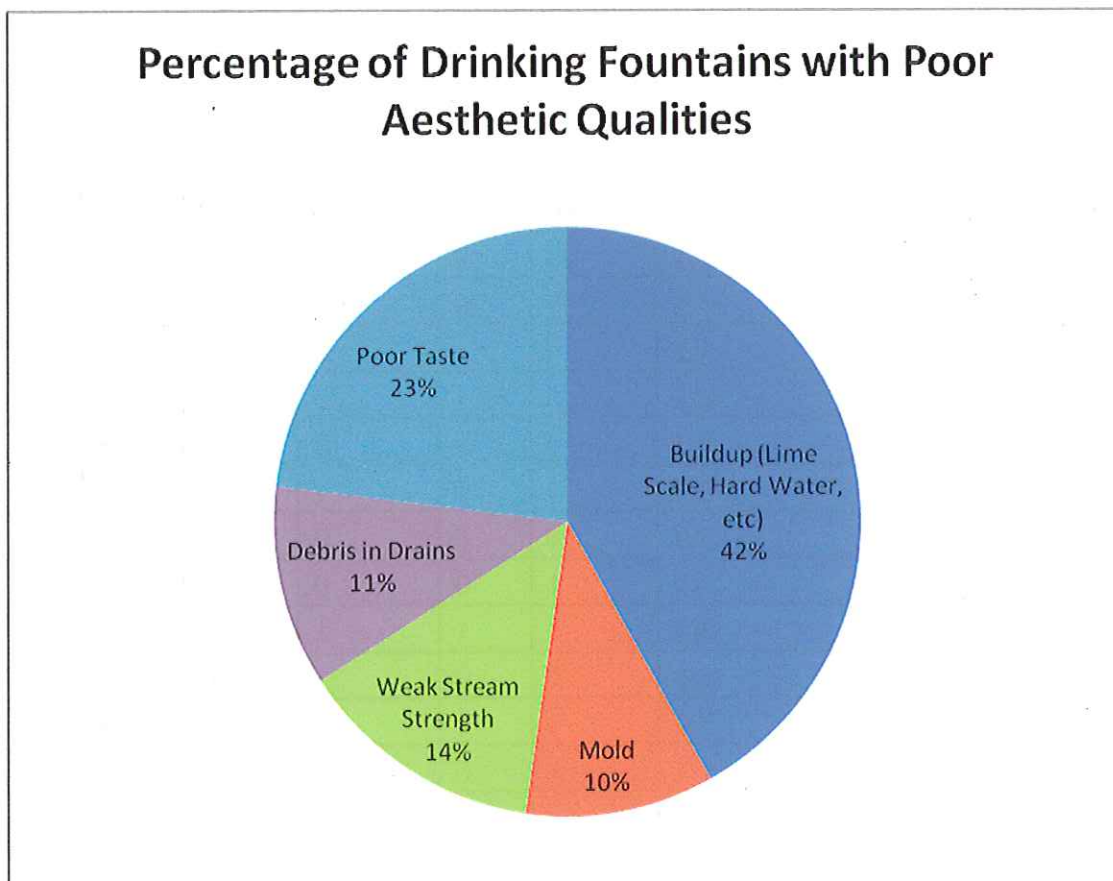
Many drinking fountains on campus received a score of less than 5, meaning that the aesthetics were reasonably acceptable. Some of the drinking fountains that received a score of 1 for weak stream strength had streams that did not even leave the base of the faucet, making sanitary drinking impossible. This was the case for the sole drinking fountain in Science C for example. While surveying the drinking fountains in the dorms, students commented in passing that the dorm drinking fountains are rarely used because they are perceived as dirty. Some drinking fountains were within a few steps from a vending machine containing sodas and single-use plastic water bottles. It would be interesting to determine how many people decide to buy a single use bottle out of a vending machine when free tap water is literally steps away. This scenario was found on the first floor of Harry Griffith Hall. The older, porcelain drinking fountains found in Van Matre, Jenkins Hall, and the Art buildings were smaller and were more difficult to fill a 16 ounce bottle because of the shape of the fountain bowl. The large, chilled, stainless steel drinking fountains in the newer building like the Behavioral and Social

Sciences building and Kinesiology and Athletics building where the most aesthetically pleasing.

Most of the traits that were surveyed are preventable. Common cleaning agents like CLR are very effective in removing buildup and mold and would make many campus drinking fountains more aesthetically pleasing. Replacing the most unpleasing fountains with new stainless steel fountains may decrease the sale of single use water bottles and increase the use of municipal water. The chilled stainless fountains also tend to have a more than adequate stream strength.

Results

- 42% of campus drinking fountains have some sort of hard water or lime scale buildup.
- 10% of campus drinking fountains have mold.
- 14% of campus drinking fountains have weak stream strength.
- 11% of campus drinking fountains have debris in their drains.
- 23% of campus drinking fountains have poor taste.



DRINKING FOUNTAIN SURVEY-AESTHETICS

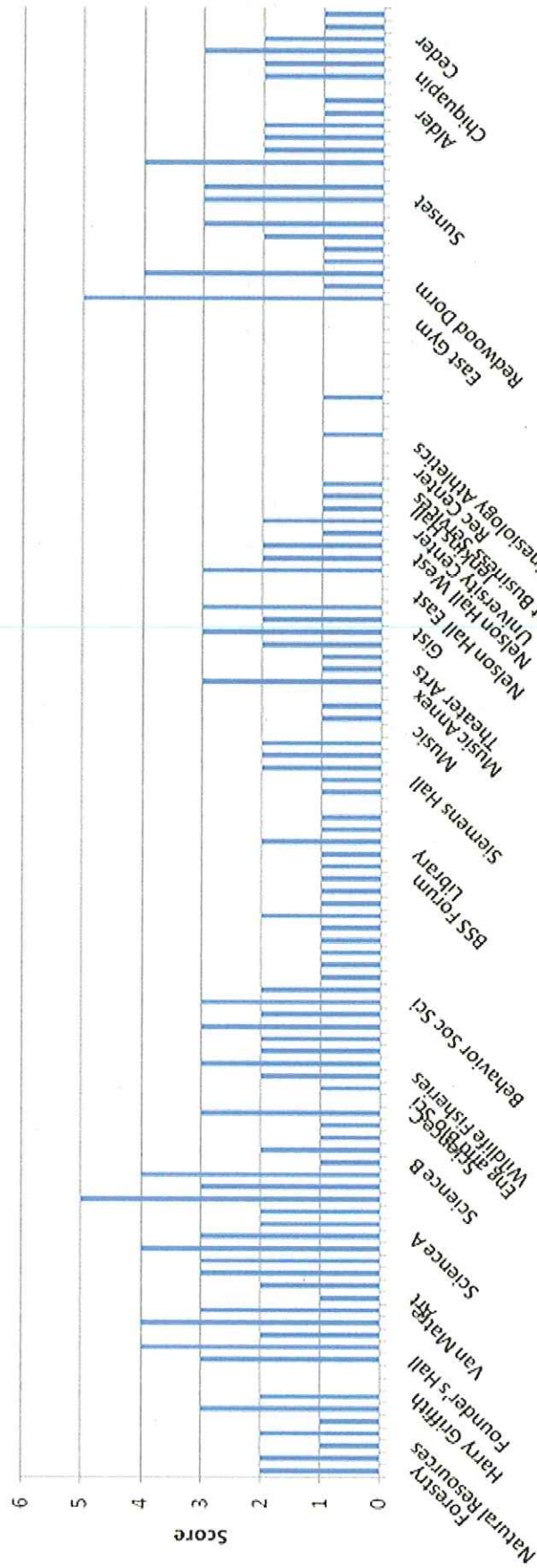
Building	Fountain # (Floor.Fountain)	Buildup (Lime Scale, Hard Water, etc)	Mold	Weak Stream Strength	Debris in Drains	Poor Taste	Total
Forestry	1.1	1	0	1	0	0	2
	2.1	1	1	0	0	0	2
Natural Resources	1.1	1	0	0	0	0	1
	1.2	1	1	0	0	0	2
	2.1	1	0	0	0	0	1
Harry Griffith	2.2	1	1	0	1	0	3
	1.1	1	0	1	0	0	2
	2.1	0	0	0	0	0	0
Founder's Hall	2.2	0	0	0	0	0	0
	1.1	1	0	1	0	1	3
	1.2	1	0	1	1	1	4
	2.1	0	0	1	0	1	2
Van Matre	2.1	1	0	1	1	1	4
	1.1	1	1	0	0	1	3
Art	0.1	0	0	0	0	1	1
	1.1	1	0	0	0	1	2
	1.2	1	1	0	0	1	3
	2.1	1	1	0	0	1	3
	2.1	1	1	0	1	1	4
Science A	3.1	1	0	1	0	1	3
	3.2	1	0	0	0	1	2
	4.1	1	0	0	0	1	2
	4.2	1	1	1	1	1	5
	5.1	1	0	1	0	1	3
	5.2	1	1	0	1	1	4
Science B	1.1	1	0	0	0	0	1
	1.2	1	0	0	1	0	2
	2.1	1	0	0	0	0	1

	3.1	1	0	0	0	0	1
Science C	1.1	1	1	1	0	0	3
Eng and Bio Sci	0.1	0	0	0	0	0	0
	1.1	1	0	0	0	0	1
Wildlife Fisheries	1.1	1	0	0	0	1	2
	1.2	1	1	0	0	1	3
	2.1	1	0	0	0	1	2
	2.2	1	0	0	0	1	2
	2.3	1	1	0	0	1	3
	2.4	1	0	0	0	1	2
Behavior Soc Sci	1.1	1	1	0	1	0	3
	1.2	1	1	0	0	0	2
	2.1	1	0	0	0	0	1
	2.2	1	0	0	0	0	1
	3.1	1	0	0	0	0	1
	3.2	1	0	0	0	0	1
	4.1	1	0	0	0	0	1
	4.2	1	1	0	0	0	2
	5.1	1	0	0	0	0	1
	5.2	1	0	0	0	0	1
BSS Forum	1.1	1	0	0	0	0	1
	1.2	1	0	0	0	0	1
Library	1.1	1	0	0	0	0	1
	1.2	1	0	0	1	0	2
	2.1	1	0	0	0	0	1
	2.2	1	0	0	0	0	1
	3.1	0	0	0	0	0	0
	3.2	1	0	0	0	0	1
Siemens Hall	1.1	0	0	0	0	1	1
	1.2	1	0	0	0	1	2
	2.1	1	0	0	0	1	2
	2.2	1	0	0	0	1	2
Music	1.1	0	0	0	0	0	0
	2.1	1	0	0	0	0	1
	2.2	0	1	0	0	0	1
Music Annex	1.1	0	0	0	0	0	0
	1.2	1	1	0	0	1	3

Theater Arts	1.1	1	0	0	0	0	1
	2.1	1	0	0	0	0	1
	3.1	1	0	0	1	0	2
Gist	1.1	1	1	0	0	1	3
	1.2	1	0	0	0	1	2
	2.1	1	0	1	0	1	3
Nelson Hall East	1.1	0	0	0	0	0	0
	1.2	0	0	0	0	0	0
	2.1	1	1	1	0	0	3
Nelson Hall West	1.1	1	0	1	0	0	2
	1.2	1	0	1	0	0	2
University Center	1.1	1	0	0	0	0	1
	1.2	1	0	0	1	0	2
Jenkins Hall	2.1	1	0	0	0	0	1
Student Business Services	2.1	1	0	0	0	0	1
	3.1	1	0	0	0	0	1
Rec Center	1.1	0	0	0	0	0	0
	1.2	0	0	0	0	0	0
Kinesiology Athletics	1.1	0	0	0	0	0	0
	1.2	0	0	0	1	0	1
	1.3	0	0	0	0	0	0
	1.4	0	0	0	0	0	0
	2.1	0	0	0	1	0	1
	2.2	0	0	0	0	0	0
	2.3	0	0	0	0	0	0
	2.4	0	0	0	0	0	0
	1.3	0	0	0	0	0	0
	1.4	0	0	0	0	0	0
East Gym	2.1	0	0	0	0	0	0
	2.2	0	0	0	0	0	0
	2.3	1	1	1	1	1	5
Redwood Dorm	1.1	0	0	1	0	0	1
	1.2	1	0	1	1	1	4
	1.3	1	0	0	0	0	1
	2.1	0	0	1	0	0	1
	2.2	0	0	1	0	1	2

	3.1	1	0	0	1	1	3
	3.2	0	0	0	0	0	0
Sunset	1.1	0	0	1	1	1	3
	1.2	1	0	1	0	1	3
	1.3	0	0	0	0	0	0
	2.1	1	0	1	1	1	4
	2.2	1	0	0	0	1	2
	3.1	0	0	0	1	1	2
	3.2	0	0	1	0	1	2
Alder	1.1	1	0	0	0	0	1
	2.1	0	0	1	0	0	1
	3.1	0	0	0	0	0	0
Chiquapin	1.1	0	0	1	0	1	2
	2.1	1	0	0	1	0	2
	3.1	1	0	0	1	1	3
Ceder	1.1	0	0	1	0	1	2
	2.1	0	0	0	0	1	1
	3.1	1	0	0	0	0	1

Overall Scores For Campus Drinking Fountains



Drinking Fountain Corresponding to Building

This bar graph illustrates the score of all drinking fountains surveyed and what their final scores are. Most drinking fountains received a score of less than 5 or 4, meaning that they weren't entirely undesirable.

Appendix B: Press Releases

HSU Takes Back the Tap, A Campaign Against Bottled Water

A student led organization on Humboldt States' campus is looking to eliminate bottled water as an option for students.

Arcata, California. April 26, 2010 – The dangers of bottled water along with the financial burden of purchasing it are a problem that most Americans are unaware of. Many purchasers of bottled water believe that they are paying for a “cleaner” product. This is simply untrue, and your municipal water district provides water that is delivered to your tap and is tested far more.

Food and Water Watch states, “By turning to your home tap, you’ll avoid the arsenic, microbes, toxins, and other pollutants that tests have found in various bottled water brands.” Your local tap water is tested hundreds of times per month, while the Food and Drug Administration only requires bottled water to be tested once a week.

The average HSU student that consumes bottled water spends \$500 a year on this commodity. Tap water is taken from a local source and delivered to people’s homes for less than a penny a gallon. Switching from bottled water to local tap water is easy, and saves the public money by using this commodity that is already provided to people.

While there are many negative health and economic effects of bottled water there are also environmental issues. The amount of single use plastic water bottles is vast, and many of these are not recycled. Food and Water Watch states; “Worldwide bottling of water uses about 2.7 million tons of plastic each year. And in the end, about 86 percent of the empty plastic water bottles in the United States land in the garbage instead of being recycled.”

Bottled water is harmful to the public’s health, costly, and environmentally degrading. There is a cleaner, cheaper, and environmentally conscious alternative that is provided by the local municipality. The choice is easy.

Contact:

Dakota Bell, Take Back the Tap member
HSU Takes Back the Tap
<http://www.foodandwaterwatch.org/>

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Citizens are Taking Back the Tap

Last year HSU sold 78,000 single-use plastic water bottles, yet most of these bottles were not recycled and thus ended up in a landfill. It takes up to 1,000 years for one plastic water bottle to degrade in a landfill. Also, as much as 44% of commercial bottled water comes from municipal sources within the U.S., which is already provided and subsidized by local communities. By taking back the tap and by stopping the use of plastic bottles, community members can save money and the environment, as well as consume water from a highly regulated and monitored source.

Tap water is highly regulated by U.S. Environmental Protection Agency standards to ensure safe and clean drinking water. The City of Arcata and surrounding areas are fortunate enough to have a reliable source of drinking water, which is delivered by the Mad River aquifer. According to the Humboldt Bay Municipal Water District (HBMWD), "the process of drawing water from the aquifer below the river bed provides a natural filtration process which results in water that is very high quality." Members from HBMWD's *Tap the Mad* campaign have found that, environmental degradation associated with purchasing single-use plastic bottles could be avoided by consuming tap water from reusable containers. Why pay more money for bottled water when locally sourced tap water is free?

As easy way to stop the harmful effects associated with the use of plastic water bottles is to use a stainless steel, reusable container. By using reusable containers, you can ensure you know exactly where your water is coming from. *Take Back the Tap* also encourages community members to motivate governmental officials to reinvest in municipal drinking water infrastructure.

HSU student Amanda Platt says, "People think that bottled water is safer, when it's not... tap water is highly regulated and tested". Furthermore, drinking local tap water from reusable containers will help the environment and the surrounding community.

Take Back the Tap is a movement that is sweeping the nation. At Humboldt State University, the student-run *Take Back the Tap* campaign aims to dissuade students from purchasing bottle water, and promotes utilizing reusable bottles to drink local tap water. The purpose of this campaign is to inform the public that bottled water is not only harmful to the environment and human health, but also results in social injustices when communities must compete with corporations for local water supplies. For additional information visit HSU's *Takes Back the Tap* website

at <http://www.humboldt.edu/~recycle/tbtt.html>. or e-mail taphathsu@gmail.com

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Appendix C: Informative Posters

Tap Water. Drink it.

Bottled water costs up to 1,900 times more than tap water and uses up to 2,000 times more energy to produce and deliver (GAO).

City municipal districts frequently test and monitor tap water to ensure that safe, clean, and good-tasting drinking water comes from our tap.

Unlike bottled water, tap water is held to strict federal and state standards for purity.

"Unless the water is transported across state lines, there are no federal regulations that govern its quality (GAO)." (GAO 2002)

For more information please visit Take Back the Tap at www.takebackthetap.org

Be conscious, save money, go reusable...

\$10/gallon

- 17 million barrels of oil are used in the production of bottled water annually... enough to fuel 1 million cars for a year
- 40% taken from municipal water sources (tap water)
- Not required to provide the source
- 1 in 5 bottles is recycled, the other 4 end up in a landfill
- takes 3 times the amount of water to make the bottle than to fill it

VS

\$ 0.0015/gallon

- Continually tested for cleanliness
- Comes from the Mad River, a local source
- Held to a higher standard than bottled water and required to produce quality reports to prove it
- Supports the local municipal water system
- It's convenient: get it at home, at school, at work- for free!

Take Back the Tap!

Appendix E: Example of Donation Letter



HSU Takes Back the Tap
tapthatHSU@gmail.com

April 23, 2010

Dear Rotary Club of Arcata Sunrise,

Humboldt State University's Take Back the Tap campaign is an organization geared at reducing the number of one-time use plastic water bottles consumed on campus and instead promoting drinking local tap water in a reusable water bottle. This year we have been given the opportunity to make the Humboldt State University 2010 commencement ceremonies a "bottle free" event. As a part of this, we will also be in charge of the concessions stand. The success of this event will be credited largely to our sponsors, who lend their names and support to our cause.

By participating as a sponsor, Rotary Club will help us enormously to serve the over 20,000 expected guests of the 2010 commencement ceremonies. The profits from this event will help HSU Takes Back the Tap fund education and awareness on the many problems associated with single-use water bottles including the environmental, economical, and social implications of that use. The proceeds will also help us to fund future "bottle-free" events on campus.

Your donation of \$300 would completely fulfill our financial need to purchase the biodegradable paper cups out of which we will be serving water. We would like you as one of our sponsors because we think it is important to create connections with local businesses and organizations. We have currently received donations from Wildberries, Beachcomber Café, Signature Coffee Co, Los Bagels, Safeway Arcata, WinCo, and the Humboldt Bay Municipal Water District and are still hoping for donations from Don's Donuts, Costco, and Pepsi. We're very excited about the community's willingness to help us with this important endeavor.

We're counting on your support, and will be happy to answer any questions you may have, contact information is included below. Thank you in advance for your willingness to support the efforts of HSU Takes Back the Tap and making a difference in our community.

Sincerely,

Kylee Singh

Events Coordinator
HSU Takes Back the Tap
(760) 427-2472
kls99@humboldt.edu

Beth Oates

Co-Director
HSU Takes Back the Tap
(707) 496-6144
eeo4@humboldt.edu

Appendix F: Photos of Bottle Cleanup & Library Display



Appendix G: Event Pictures



BIG Time



Panel Discussion



SET Expo

Appendix H: Week of Action Panel Poster



Water is Life

A Week of Action and Education on Water Justice, the Perils of Water Privatization and the Impacts of Bottled Water on People and the Planet

Water Panel Presentation & Discussion

Keynote speaker Debbie Davis, policy director at the Oakland-based Environmental Justice Coalition for Water will discuss Water Justice as it pertains to disadvantaged communities and tribes in California. Other panelists will be speaking about aquatic plastic pollution, local water issues, the psychology of bottled water, and California water politics.

Monday April 12, 2010 at 6pm

Gist Hall 218, Humboldt State University

Week of Action Event Schedule

- ◆ 4/12 Water is Life panel GH 218, 6-8p (free!)
- ◆ 4/13 *Blue Gold* film screening GH 218, 7p (free!)
- ◆ 4/14 *FLOW* film screening GH 218, 7p (free!)
- ◆ 4/15 Life of Bottled Water workshop HGH 204, 11-12p (free!)
- ◆ How Many Bottles contest, Library Display (free!)
- ◆ Tap vs. Bottled H₂O Taste Test (TBD) (free!)

HSU Takes Back the Tap

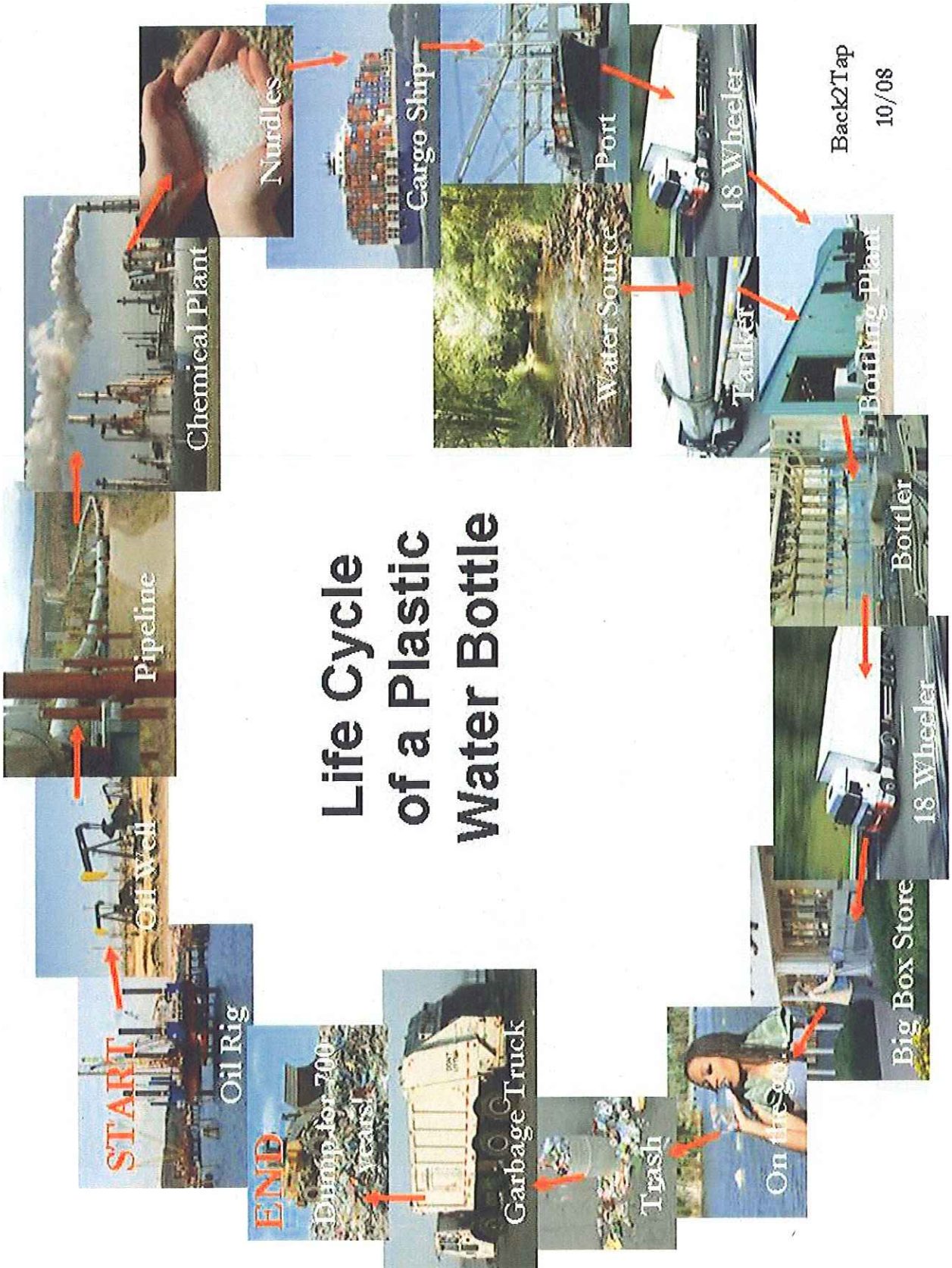
tapthathsu@gmail.com



This event is wheelchair accessible. Persons who wish to request disability-related accommodations, including sign-language interpreters, should contact Sarah Schneider at tapthathsu@gmail.com



Appendix I: Lifecycle of Bottled Water Graphic



Appendix J: Webpage

HUMBOLDT STATE UNIVERSITY

clubs & activities
SERVICES FOR STUDENT GROUPS AND EVENTS

[club information](#) [advisors](#) [funding](#) [calendar](#) [handbook](#)

HSU Takes Back the Tap

HSU Takes Back the Tap is part of a national movement to reduce the consumption of one-time-use plastic water bottles. We recognize the environmental, social justice, economic, and health issues associated with bottled water and are actively fighting for consumption of our delicious, clean, local tap water in a re-useable container.



Meeting information

Time: Wednesday 12-1 p.m.
Location: NR 201

Contact info

Club Email: tap@hsu.edu

Places to find us on the Web

<http://www.facebook.com/HSU-Takes-Back-the-Tap-258394313437164>

Events

No events are scheduled

About the Club

Membership Qualifications

All you need is some free time and passion/interest in our cause. We are always looking for volunteers and new members to help with the many "bottle free" events or any of our other projects.

How to Join

Please either e-mail us or just show up at one of our weekly meetings. We hope to see you there!

Office of Clubs & Activities
University Center South Lounge
1 Harper Street Arcata, CA 95521
Phone: (707) 824-3774
2008/09

Appendix K: Bottle Analysis

The amount of embedded energy contained in the bottles in this display case is enough to:



heat a home for four months,



drive 2,500 miles (in a compact car),



run a laptop continually for 75 YEARS, or



watch television continually for 2.5 years

The amount of money originally spent on the bottles of water in this display case:

Over \$7000!!

The amount of money it would cost for the same amount of water from the tap:

Less than \$10...

Appendix L: Capstone Class Hours

Dakota Bell

Date	Content	# of Hours
1/20	TBTT meeting	1
1/27	TBTT meeting	1
2/3	TBTT meeting	1
2/5	410 meeting	2
2/10	TBTT meeting	1
2/17	TBTT meeting	1
2/17	Collecting Signatures for Tapped Screening	1
2/22	Water bottle Collection	2
2/24	TBTT meeting	1
2/24	Tapped Movie Screening	3.5
2/26	410 meeting	2
2/26	Career Expo	2
2/28	410 problem statement individual work	2
3/1	Water bottle collection	2
3/1	410 problem statement group work	1
3/3	TBTT meeting	1
3/9	Water bottle collection	2
3/10	TBTT meeting	1
3/11	Grad meeting	2
3/19	Bottle Cleaning for Library Display	5.5
3/19	Walk around for Commencement	1
3/24	TBTT meeting	1
3/29	Volunteer recruitment	1
3/29	410 group work	1
4/7	TBTT meeting	1
4/7	Individual work for 410	2
4/10	Tabling Big Time (bottle free event)	6
4/13	Film Showing "Blue Gold"	2
4/21	TBTT meeting	1
4/26	Work on press release	2
4/26	Cleaning out library display	2
4/28	TBTT meeting	1

4/29	Working on radio ad	3
4/30	Drinking fountain survey	2
5/1	Volleyball Bottle-free Event	9
5/3	Drinking Fountain survey cont.	1
5/4	Work on Ppt presentation	2
5/5	TBTT meeting	1
5/15 (future)	Bottle Free Commencement	8
		Total: 81

Maddie Kunes

Date	Hours	Activity
20-Jan	1	TBTT meeting
5-Jan	1	Met with group to brainstorm
27-Jan	1	TBTT meeting
3-Feb	1	TBTT meeting
5-Feb	1	Met with group
17-Feb	1	TBTT meeting
24-Feb	1	TBTT meeting
26-Feb	1	Met with group
28-Feb	4	Research and writing for situational analysis
1-Mar	1	Graduation meeting with Mary Kay
1-Mar	1	Met with group
3-Mar	1	TBTT meeting
4-Mar	3	Attended screening of Tapped at Arcata Theater
6-Mar	1	Worked on drinking fountain survey excell sheet
7-Mar	2	Drinking fountain survey
9-Mar	4	Drinking fountain survey
9-Mar	1	DFS data entry
9-Mar	1	Did a one page write up about the Tapped screening for Water Politics teacher
10-Mar	1	TBTT meeting
12-Mar	3	Green grad meeting
17-Mar	2	Drinking fountain survey
23-Mar	2	Worked on weighing alternatives
24-Mar	1	Tabled at grad fair
24-Mar	1	TBTT meeting
29-Mar	1	Met with group to finish weighing alternatives
1-Apr	1	Graduation meeting with TC
1-Apr	4	Drinking fountain survey
7-Apr	1	TBTT meeting

6-Apr	2	Worked on implementation strategies
10-Apr	4.5	Tabled at Big Time
13-Apr	2.5	DFS data entry and analysis
13-Apr	2	Watched Blue Gold
14-Apr	2	Attended screening of FLOW
28-Apr	1	TBTT meeting
1-May	3	Worked on DFS and final powerpoint
2-May	2	Worked on DFS analysis
3-May	1	DFS analysis
4-May	2	Met with Dakota and Nasley to work on final powerpoint
5-May	1	TBTT meeting
15-May	7	Will work at first two graduations ~6am-1pm

Total= 81

Jacoba Aldersebaes

Hours	Date	Doing What
2	20-Jan	Club meeting and group meeting
1	27-Jan	Club meeting
1	3-Feb	Club meeting
1	4-Feb	TBTT Poster Conversions
3	5-Feb	Food and Water Watch Research
2	5-Feb	Group Meeting
1	10-Feb	Club meeting
1	17-Feb	Club meeting
2	22-Feb	Bottle Collection
1	23-Feb	Poster Printing
1	24-Feb	Club meeting
1.5	24-Feb	Poster Finalization
3	26-Feb	Career Expo Volunteer
2	26-Feb	Group Meeting
3	28-Feb	Problem and Background Statement work
1	1-Mar	Green Graduation Meeting
1	1-Mar	Group Meeting Goals and Objectives
0.5	1-Mar	Graduation flier/e-mailing
2	3-Mar	Bottle Collection
1	3-Mar	Club Meeting
3	4-Mar	Bottle Collection
2	4-Mar	Tapped showing
2.5	5-Mar	Water Plant Tour

1.5	6-Mar	Social Justice Summit
1.5	8-Mar	Bottle Collection
2	9-Mar	Bottle Collection
1	9-Mar	Informal Green Grad Meeting
1	10-Mar	Club Meeting
2	11-Mar	Bottle Collection
2	11-Mar	Green Graduation Meeting
2.5	16-Mar	Bottle Collection
1	19-Mar	Redwood Bowl Tour
1.5	19-Mar	Bottle Clean
1	24-Mar	Club Meeting
2	25-Mar	Green Graduation Meeting
1.5	26-Mar	Chairs and Electrician for graduation
6	27-Mar	Water Conference in Portland OR
2.5	28-Mar	Water Conference in Portland OR
1	29-Mar	Weighing Alternatives
2	1-Apr	Green Graduation, Meeting
2	2-Apr	Plant Green setup
0.5	5-Apr	Poster Hanging
0.5	6-Apr	Poster Stuffing for staking
2	6-Apr	Implementation Strategies
1	7-Apr	Club Meeting
2	10-Apr	E-mailing
3	12-Apr	Water Panel
3	13-Apr	Blue Gold Film Screening
2	19-Apr	TBTT Radio Ad
2	21-Apr	Green Graduation Meeting
1	2-Apr	Radio Ad Recording
3	25-Apr	Press Release and Print Ad
1	25-Apr	Volunteer Meeting Information
1.5	26-Apr	Monitoring and Evaluation
1.5	29-Apr	Volunteer Meeting Information
1	29-Apr	Volunteer Meeting
6	4-May	410 Final Paper
2	5-May	E-mailing for Volunteers
1	5-May	Club Meeting
2	6-May	Green Graduation Meeting
3	14-May	Setting up for Graduation
8	15-May	Comencment ceremonies (Prospective)

Total= 119.5

Beth Oates

20-Jan	TBTT meeting	1
27-Jan	TBTT meeting	1
3-Feb	TBTT meeting	1
5-Feb	410 meeting	2
10-Feb	TBTT meeting	1
10-Feb	Meet with TC to discuss bottle collection	2
17-Feb	TBTT meeting	1
22-Feb	Bottle collection	2
24-Feb	TBTT meeting	1
24-Feb	Print and laminate poster	1.5
26-Feb	Career expo- bottle free event	2
26-Feb	410 meeting	2
28-Feb	410 problem statement	2
1-Mar	Green graduation meeting	1
1-Mar	410 meeting	1
3-Mar	Bottle Collection	2
3-Mar	TBTT meeting	1
4-Mar	Bottle Collection	3
4-Mar	"Tapped"	2
5-Mar	Water Plant Tour	2.5
6-Mar	Social Justice Summit	1.5
8-Mar	Bottle Collection	1.5
8-Mar	Meeting with Professor Hansis	0.5
9-Mar	Bottle Collection	2
10-Mar	TBTT meeting	1
11-Mar	Green Grad Meeting	2
11-Mar	Bottle Collection	2
16-Mar	Bottle Collection	2.5
19-Mar	Redwood Bowl Tour with T.C.	1
19-Mar	Bottle Cleaning	6.5
23-Mar	Nomination letter	3
24-Mar	Pricing in Eureka	2.5
24-Mar	TBTT meeting	1

25-Mar	Website update & work on green grad budget	4
25-Mar	Green Grad meeting	2
26-Mar	Rentals, budget, donation letters	4
26-Mar	Meeting with apron supplier	1
29-Mar	Donation letters	1.5
29-Mar	Weighing alternatives	2.5
30-Mar	Donation letters	1.5
31-Mar	Donation Drive	3
31-Mar	Meeting w/ Aldaron Laird (Hum. Bay Municipal Water District)	1
1-Apr	Green Grad Meeting	1
3-Apr	Donation letters	1
5-Apr	Donation drive	3
7-Apr	Donation drive	2
10-Apr	Big Time festival	2.5
13-Apr	Library display and bottle info	3.5
16-Apr	Clubs Coalition Meeting	1
16-Apr	Worked on radio advertisements	1.5
21-Apr	TBTT Meeting	1
22-Apr	Record PSA	1
28-Apr	TBTT Meeting	1
28-Apr	Poster	2
1-May	Poster	2
4-May	ENVS 410 project	6
5-May	TBTT Meeting	1
14-May	Setting up for Graduation	3
15-May	Green Graduation	6
	Total	117

Nasley Proa

Date	Hrs	Description
Wednesday, January 27, 2010	1.00	Weekly meeting
Wednesday, February 03, 2010	1.00	Weekly meeting
Wednesday, February 17, 2010	1.00	Weekly meeting

Friday, February 19, 2010	2.00	Preview Tapped movie with other club members
Wednesday, February 24, 2010	1.00	Weekly meeting
Thursday, February 25, 2010	1.00	Met with Su, planned TBTT Workshop
Thursday, February 25, 2010	3.00	Movie showing and tabling in KBR
Friday, February 26, 2010	2.00	Bottle free event, set up and served refreshments
Friday, February 26, 2010	1.00	Divide sections for assignment due 2/30
Friday, February 26, 2010	1.00	Inform coalition of TBTT projects
Saturday, February 27, 2010	3.00	Health and safety research
Sunday, February 28, 2010	2.00	worked on Powerpoint
Monday, March 01, 2010	1.00	Green Grad
Monday, March 01, 2010	1.00	Combine sections and work on Objectives and Goals
Tuesday, March 02, 2010	2.00	Met with Su and Juliene discuss poperpoint
Tuesday, March 02, 2010	2.00	Adjustments to flyer for SJS
Wednesday, March 03, 2010	1.00	Weekly meeting
Saturday, March 06, 2010	3.00	Finalize powerpoint
Saturday, March 06, 2010	1.50	Workshop
Wednesday, March 10, 2010	1.00	Weekly meeting
Thursday, March 11, 2010	2.00	1st Weekly Meeting
Friday, March 19, 2010	5.00	Tour of Grad Field and bottle washing
Wednesday, March 24, 2010	1.00	Weekly meeting
Thursday, March 25, 2010	2.00	Weekly meeting
Thursday, March 25, 2010	1.00	Inform Graduates of Bottle Free Grad
Friday, March 26, 2010	1.00	Obtain Green Grad Support
Monday, March 29, 2010	1.50	Work on Objectives due Tuesday
Wednesday, March 31, 2010	2.00	Preview article for Week of Action
Thursday, April 01, 2010	1.00	Weekly meeting
Friday, April 02, 2010	2.00	Description of WOA events.
Saturday, April 03, 2010	2.00	Tabling
Sunday, April 04, 2010	1.00	Flyer

Wednesday, April 07, 2010	1.00	Weekly meeting
Thursday, April 08, 2010	2.00	Print and put up Flyers
Saturday, April 10, 2010	5.00	Bottle free event, set up and served refreshments
Monday, April 12, 2010	4.00	Water is Life Event
Thursday, April 15, 2010	2.00	Water is Life Event
Friday, April 16, 2010	1.00	Housing resource for volunteers
Wednesday, April 21, 2010	1.00	Weekly meeting
Wednesday, April 21, 2010	2.00	Volunteer meeting flyer and emails
Thursday, April 22, 2010	2.00	Weekly meeting
Saturday, April 24, 2010	5.00	Tabling at Redwood Acres
Wednesday, April 28, 2010	1.00	Weekly meeting
Thursday, April 29, 2010	1.50	Volunteer meeting
Saturday, May 01, 2010	4.50	Tabling at May day Festival
Sunday, May 02, 2010	2.00	Final presentation powerpoint
Wednesday, May 05, 2010	1.00	Weekly meeting
Thursday, May 06, 2010	2.00	Weekly meeting

Total Hours **90.00**