

Water



Literacy

project for the 2011 LSA
Theme Semester on Water



Sustainability and the Campus
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water
2011 LSA WINTER THEME SEMESTER



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Executive Summary

Our Water Literacy group worked with Wendy Woods from the Michigan Community Scholars, Amy Harris from the Exhibit Museum of Natural History, and Manja Holland from the Graham Environmental Sustainability Institute. Our job was to bolster the Winter 2011 LSA Water Theme Semester by creating Communication Plans to disseminate water-related information throughout the campus. We developed 10 informational points, or “Facts” accessible and striking to students concerning the water crisis. We tagged-on 10 preventive steps, or “Actions” appropriate for a student’s life. Both Facts & Actions are to be disseminated with the developed Communication Plans.

Water is not scarce on the University of Michigan campus; understandable most students don’t appreciate its global value. Fortunately, The Student Steering Committee and our aforementioned sponsors understand this, and also understand our campus is certainly not a reflection of the world’s relationship with water. The Communication Plans we developed are to be implemented campus-wide during the water theme semester, which will take place after our Environmental Studies class has adjourned. Our job is to provide our plans, Facts & Actions for the Water Semester Committee for use.

To create our Facts & Actions, we needed to understand the general level of water literacy throughout the student body. We created and implemented surveys to gauge this level of water-related knowledge. The questions our surveys posed were general and concerned water on a local and global scale. To achieve an idea of baseline student water knowledge, we surveyed students in ARTDES 150 and 230, ENG 340, random students in the Union, even students at an off-campus workplace. We received samples from students varying in gender, age, grade, and living location/arrangement.

Going through the results, we were interested but not shocked to find many students were “water illiterate” and could not even answer what the primary source of our campus’ drinking water is. This made our overarching goal and mission clear: to inform the uninformed. We catered our Facts & Actions to the knowledge and lifestyle of the average student, based on the survey data collected and our experience at the University of Michigan.

The Facts we developed are understandable and meaningful to students. They are full of imagery, like how many gallons of water go into a single cheeseburger, and rife with awe-forming realism, like how many hours women of sub-Saharan Africa spend fetching water daily. We avoided sometimes dense and overlookable political statistics in favor of understandable, portable, and thought provoking facts and statements. The Facts are not meant to intimidate but inform; they are simple, straight-to-the-point, and affective. The Actions are cut from a similar cloth. They encourage students to affect change on an appropriate level, like promoting the use of reusable bottles and re-fill stations, and help usher in a new generation of water-aware students. The Facts & Actions were formed in regard to communicative priming effects, each Fact was created with the uninformed student in mind, and all Actions can be taken on campus. After the water theme semester, the quiz and/or survey we developed will be readministered to the student body to judge the effectiveness of the theme semester, our Facts & Actions and Communication Plans.

We decided on several Communication Plans, keeping communicative priming effects in mind, which have been proven to positively affect cognitive responses in

students receiving information. We also incorporated visuals to reinforce the concept of symbolizing capacity, which states symbols are utilized to represent certain objects, thoughts, and ideas as they are the vehicle of thought that allows students to store, process, and transform experiences for mental processes. We created simple and attractive water semester posters for the Diag, plan on posting Facts and tagalong Actions on University blue buses, designed water semester coasters to be freely given to the student body, and produced an informational quiz to be utilized during water theme semester presentations. Although we are passing our work to the Committee after our term's end, we have developed visual marks and designs for the aforementioned means of communication to fix our fingerprint on the project further.

Our Facts & Actions, by way of our Communication Plans, will bolster the water theme term, inform students, increase the University of Michigan's water literacy and conservation, and lend to our campus' greater good. It will bring the opposite side of the world closer to help our University sympathize with the plight of water-lacking communities, and will reveal our local hidden water issues.

Methodology

Our Water Literacy project's main goals are to have 10 Facts & Actions about water students can absorb in order to gain more knowledge about the global water crisis. In depth Communications Plans we have developed serve to disseminate this information effectively.

In order to deliver a message of water literacy for the Winter 2011 LSA theme semester, it was crucial to have direct and frequent contact with the aforementioned project sponsors at the University, who were all key components of the project's development and ultimate products. A great amount of research concerning local and global water issues and how they affect people around the world gave us a broad basis to work from. Proven successful communication and education tactics were also necessary knowledge to acquire in order to formulate our 10 Facts & Actions, and to help shape our Communication Plans. Communication courses taken at the University, especially COMM 102, which pertained to involving students through information dissemination, have been an informative basis for our plan formulation. Our audience is the general student body, those who are extremely unfamiliar with water issues and at a loss for how to help, and those who do have background knowledge of water already and can provide strong support.

The Survey: Introduction, Explanation, and Results

Many students, when confronted with the vast concept of a "water crisis" immediately jump to the idea of helping people across the globe with their water issues, including availability and sanitation. While being aware of global water issues is a major concern, students need to become familiar with our local issues and how we can make a difference as individuals at the University of Michigan to first feel empowered.

The goal of the survey was to gain a better understanding of water literacy across the University of Michigan campus, as well as to measure the knowledge of action taken by the University of Michigan. In order to do that, we designed the survey to measure

both students' global water perspective and local water knowledge. The questions were based off necessary concepts and actions that would need to be addressed in order to have a conscious desire to have sustainable practices towards water. A background into what and where water information has already been learned was also instrumental in informing what has already been successful in educating water literacy. See Appendix A for the full survey.

In order to gain a better understanding of water literacy across the University of Michigan campus, we designed a survey that measured both students' global water perspective and local water knowledge. This survey was distributed to one hundred students (35 males and 65 females) across four different years in college (Freshmen: 41, Sophomores: 32, Juniors: 7, Seniors: 20). The survey was distributed through two primary methods in hopes of reaching a wider range of students. Half of the surveys were done electronically, and half were handed out in paper form to various groups and classes. Due to our direct connection, through Wendy Woods, we were able to send out an online survey to the Community Scholars. For the online survey we sent out 48 surveys and had all 48 completed. This percent completion rate may be due to the strong connection that we have with the program head, Ms. Wood, or it may be due to the time frame. We sent out the survey on the Wednesday after Fall Break and asked for it to be returned by the following Sunday. The half-week following Fall Break was chosen to conduct the survey because we thought students would have access to computers during this time and they would be checking their emails after being away on break. Paper surveys were also handed out during the half-week, 52 in total, to classes that group members were part of, as well as students seen outside of class. For these surveys we also had a 98% completion rate, as one student declined to finish a survey. We chose to hand out paper surveys to students not in environmental classes in hopes of measuring the true water literacy on campus. Some of the classes surveyed include ARTDES 150, ARTDES 230, and ENG 340. Eight students from the University of Michigan were given surveys at Zingerman's Roadhouse, and eight "off-the-street" students were questioned in the Michigan Union eating area. Our aim was to target all students, so that students new to campus as well as seniors, who have taken many classes, were included in the survey. Our survey was given to more freshmen due to our connection, through Wendy Woods, with the Community Scholars Program, which are primarily freshmen. In terms of the U-M population overall, the younger classes were targeted more than the upperclassmen, and non-environmental students were also particularly under represented, but this was intentional in order to get a greater sampling of the broad range of students who are approaching water issues with little to no base water knowledge.

The Actual Survey Results are as follows:

100 Participants

42 freshmen

32 sophomores

7 juniors

19 seniors

Gender: 64 females

36 males

1. Where does your water come from?
Specific location mentioned: 12
General location: 57
No Clue: 31

2. Do you feel comfortable drinking Ann Arbor water?
Yes: 87
No: 13

3. Do you currently take actions to conserve water?
Yes: 76
No: 24

4. Do you know any specific ways the University of Michigan is combating the water crisis?
Yes: 28
No: 72

5. Are you aware of the global water crisis?
Yes: 68
No: 32

6. What is your primary source of drinking water?
Bottled water: 31
Tap Water: 57
Water fountain: 25

In terms of results, there were many trends that were visible throughout the surveys received, the most prominent being the lack of knowledge about where a student's water comes from in Ann Arbor. Out of the one hundred, half could name a general location and over thirty had no clue. Many people mentioned a water faucet or the Great Lakes and even the oceans, but nothing about their local watershed or how their water locally reaches them.

On the second question where we asked about people's comfort level drinking Ann Arbor water, there was often a correlation between their basic water education and the results. Almost all who had general knowledge of where their water came from, the water crisis, or who currently take actions, felt comfortable drinking Ann Arbor's tap. Most people felt comfortable with drinking Ann Arbor water but there still was a group that tended to go towards bottled water due to uneasiness concerning water quality. Many students expressed their attempts to save water with eagerness but their responses tended to be limited to turning off the faucet while they brush their teeth and taking shorter showers as opposed to some deeper conscientious actions. While these are both great actions to take, we want students to think about the other broader actions one can take to confront the local and global side of the water crisis, such as understanding the demands of virtual water on the global water supply. Water consumption needs to be understood in a physical manner (amount of water used to shower) as well as virtual use (amount used

to create a cheeseburger or what goes into producing power). The next question asked whether students were aware of any steps being taken at the University of Michigan to combat the water crisis. The majority of people weren't aware of anything. That's not to say everyone wasn't informed, many people brought up the toilets installed across campus that have a dual flush system in order to save water.

When it came to the global water crisis that is steadily developing, it was surprising to see that there was a pretty even balance between those who were informed about it and those who were novices. The global water crisis question is comprised of problems concerning depleting fresh water and the disconnect between water surplus and wastefulness in contrast to water deficiencies largely around the globe. We concluded this based off the number five question on the survey: "Are you aware of the global water crisis?" Many students have no clue water is becoming a huge issue in the world. This could be due to the local availability of water; there is a constant water flow from all faucets and sources around campus. However, many students that live on campus do not see their water consumption habits in the form of a monthly utility bill and therefore have little concern for their habits. All of the questions seem to point towards the same trend: a connection between water education and water literacy. The connection may be obvious, but it is commonly overlooked. Many students who identified themselves as being aware of the water crisis noted classrooms as being a primary source of knowledge on the water crisis. One of the lower scoring sources selected was posters around campus. Information that provides information is posted, such as turning off the water while it is not necessary for use, but this type of information has been proved to already be common knowledge that simply skims the surface. With this in mind, we plan to create more effective and plentiful posters that will catch students' attention and allow room for growth in avenues of education.

Basic Principles of Effectively Communicating Information

To provoke this effort, the survey included a question about what forms of communication they have received information about the water crisis from. The reason behind the second part of the question was to then use the results to create a more effective communication plan. We have decided to use Communication Plans that target students through quick, witty statements. We wanted to create statements that are somewhat similar to what you would hear a friend say, representing the students' high report of obtaining information through "word of mouth". According to Nojin Kwak, a professor of communications at the University, priming effects are ways of attracting students to act upon information they're receiving. They are stronger if the students receive the information as justified, identifiable, realistic, and most certainly nonfictional. Priming, the act of exposing people to a stimulus, or information in our case, influences response to a later stimulus, or opportunities to take action during the water theme semester. Our hopes are to first grab students attention and then direct them to additional sources.

With these Facts & Actions, we want to make them appealing as possible with as few words to get our points across. Interesting graphics and comparisons will result in a visual understanding that does not require the time to sit and read a list. Also, the actions list is not so much "turn off your faucet" but more thought provoking, such as ways in

which you would never suspect water conservation. Keeping the idea of symbolizing capacity in mind, through self-reflection after viewing our informational stimuli, students make sense of their experiences, explore own cognitions and self-beliefs, and alter their thinking accordingly. We don't want to be obvious and redundant even to less water-educated individuals, but we need to be direct and concise in order to be effective on a campus wide scale. The meeting with Nancy Connell, The Director of Strategic Communications, was a real check for us to make sure that each fact and action would resonate with the intended audience. We were also able to acquire useful information and ideas around psychological aspects that go into effective communication strategies. Much of that consisting of keeping it simple yet strong, alluring with word choice, making sure each fact had statistics to validate it, repetition of message, attractive visuals including all pieces being cohesive therefore recognizable, and correlating to the water theme semester icons. This can all be reviewed in Appendix C, which lays out the specific communication tactics.

A psychological basis was needed to explain why we chose the facts we did based on student knowledge of the subject and what, as a majority, is not yet known. The surveys were a necessary step in understanding how much students actually know about water issues, where students get information, and their basic actions associated with water. This was a help in rationalizing why we have chosen the information we have. This whole process intends to educate students on water issues and with the survey as our source, we realized that we are starting off on little basis of water awareness. This means we are targeting students who don't necessarily have the capacity yet to understand more complex issues around water such as geopolitical topics. We discussed levels of information students understand. We also are using a correlative theory, believing information will resonate more with students if it is given in a relating environment or form. Our coasters are a prime example, displaying water-related information while most likely used as a place to put beverages. When targeting a large group, topics must be generally thought provoking but still something that they aren't aware of, and much of the basic water literacy must still be taught before undertaking larger issues. A greater focus might then come in with courses that allow for more in-depth discussions such as water themed courses, political science, environmental, etc. Our end goal is to educate as many students as possible about what they should know concerning water and the water crisis, which then can be a foundation to build upon.

Message- the Facts & Actions

The purpose behind our 10 Facts was to inform people. Going over the data from the surveys we conducted, it was obvious students were not very knowledgeable concerning certain aspects of water. Most were not even aware the source of our drinking water in Ann Arbor. From the information gathered, we focused mainly on creating facts using imagery hopefully pictureable for most University students. A necessary focus from the start was where Ann Arbor's drinking water comes from. Facts evolved and were molded in order to inform about our local water, its drinking purity, and the striking amount of useful water that is surreptitiously expended. We shine light on undercover water guzzlers like fabrics and food and also cover global and local usage statistics. A basis of research on these topics was acquired and discussed amongst the group and

project sponsors in order to mold each piece of information around who we are targeting and their knowledge base, the locations of this information in terms of where water action takes place, and ways that will actually provoke thought and therefore change. In making our facts accessible to students and applicable to their life, we also wanted each fact to be headlined by single statements, the lines in bold font, for hopeful catchiness and portability according to findings of basic communication strategies.

The actions then were based off the correlation to these facts. Not basic things, but actions that are thought provoking and worth paying attention to. We wanted to follow up information with action and present ways to affect the unfortunate water usage facts of our world and campus. With each fact about water, there is a direct link as to how we can combat the issue with an action. We suggest ways to reduce water footprints, access information, and even contact the school concerning campus action. By being informed, there is a natural empathy and conscientiousness when interacting with water.

Audience

Since the water literacy project is being integrated as a part of the water theme semester during the winter of 2011, students of the University will be a direct audience; engaging those with little knowledge or interest and those who are more educated and interested in the topic. A lot of focus will naturally go into students who live in dorms, but it was pointed out that special attention must be given to reach the seasoned students who live off campus and may not be surrounded by University movements. Initially the thought was to have a single product with interesting graphics that would be dispersed around the campus. After one of many meetings with Amy Harris and Manja Holland, it was decided that since we were going to focus in on different audiences, aspects and areas of the campus and beyond, it was clear that the message needed to be adaptable and able to shift interest based upon where and to whom we were targeting.

With perspective target audiences decided, students in dorms, bus riders, walkers, those living off campus, those who attend events, those who come onto campus for events, we need different deliverable messages in order to accommodate for the varying focus groups. It was decided that it may be effective also to break up pieces of the facts and actions lists in certain instances. This would help to keep lines concise and more effective in getting points across where attention span is lacking.

Communication Plan

Accompanying the list of 10 Facts & Actions is a plan to effectively communicate these ideas. The information has been accumulated into not a list of facts and actions that are wordy and daunting to the reader, but are formulated into different interesting and eye-catching forms as the basis for various communication tactics to execute this teaching process. The Communication Plans take what we aim to get across based upon the target group of University students, how we visually promote the ideas and the water semester, and what tactics would efficiently put the information out there. We hope to take a witty approach to portraying each idea and put facts in a way that do not simply result in an apocalyptic view of the future. It is important that the individual understand

that it is untrue they, as a single force, have no effect, but make them realize that each person can be a part in a world of change.

The first tactic is large scale posters including the information in its entirety that can be executed in residence halls, university buildings, water theme events and the diag. These are places that once the viewer is drawn in, they can stop briefly and take a closer look. Another focus made possible with the connection with Amy Harris and Manja Holland is the ability to incorporate our 10 Facts & Actions as quiz questions that would be projected before events as the audience is waiting. They would also serve as a way to engage students and possibly be presented with prizes such as water theme semester water bottles. These water bottles would then have a “message in a bottle” (being our Facts & Actions) that students would receive. Another focus area is the U of M blue bus system. Students traveling onto campus from dorms and to and from classes from North to Central campus are exposed to ads each day. We thought it would be interesting to split up each of the ten water facts into single graphic pages and accompany it with a corresponding page that has a water themed action. Since busses have reoccurring riders all semester it would be interesting to post one fact and one action and either rotate different ideas on different busses or to have a time span in which the students could “stay tuned” for next week’s water fact. Some of this rotation may happen naturally due to the fact of riders ending up on different busses on a daily basis also. Since a large amount of effort has already gone into the Planet Blue organization and possibly other university sustainability websites, we also have the ability to post our information on a scroll within Planet Blues website. A physical deliverable was also brainstormed as something that could be handed out and re-used rather than a paper or card handout that is often disregarded. We played up the handout ideas as an actual usable object, a drink coaster, which is intended for reuse.

Along with each and every communication plan put into the works, costs are associated and vary depending on type of tactic. Our group, along with the Water Theme Semester Co-Chairs, who this will then be passed on to, have prioritized what we think will be feasible and most effective resulting in the four tactics we have come up with listed in detail in Appendix C. The theme semester co-chairs have already made the move to allocate space on the diag, on the bus system, in the Natural Science Museum for the theme semester and have money set aside for these advertisement spaces and printing costs. It will be in the hands of the theme semester to take our communication recommendations and address them where they see fit.

We realized we are not alone in educating the campus on water issues. Part of acting out the water literacy plan is knowing what else is accompanying this plan around campus and how we are able to collaborate. We are already in contact with the sustainability student action group whose focus is water conservation and facilitating change on campus, so we can focus more on the facts and help to inform other actions that we feel might be effective on campus, but hand it over to those who have better capabilities for campus action. There will also be water themed speeches for students and community members and an art exhibit pertaining to the non-reusable plastic water bottle issue, so having our information in the form of poster visuals, physical coasters, and engaging quizzes along with these events would further push the initiative.

Since this semester’s group will technically be dispersing, it is our job to not only give over the information we found relevant to the Theme Semester’s interests but also

accompany it with a suggested plan for the sponsors in order to implement this in the way we are envisioning. This mainly falls along the lines of four set communication tactics being bus signs, diag boards, a multifunction quiz, and coasters that would be handed out/sent out as our form of the initial post card handout. The group has created an all inclusive timeline that lays out each tactic, its purpose, where it will be executed, and what we envision for the visual aspect. This again is laid out in Appendix C. We have created specific visuals to accompany the 10 Facts & Actions that have been designed through a collaborative effort from the designer from the Water Theme Semester organizers, and the team. The designs will be used uniformly on the pages, posters, and coasters where we intend to have them appear with consistency and visualization such as the water icon to show the Water Semester is bringing this on. The repetition of these similar visual images and correlative information was also a communication amplifier.

Appendix

A) Water Literacy Survey



Water Literacy Survey

Sex/Gender: Male Female

Year: Freshman Junior
 Sophomore Senior

How many Environmental classes have you taken? 0 1- 2
 3- 4 5 or more

1. Where does your water come from?

2. Do you feel comfortable drinking Ann Arbor Water? Yes No

3. Do you currently take actions to conserve water? If so, please list a few of these ways. Yes No

4. Do you know of any specific ways the University of Michigan is combating the water crisis? Yes No

5. Are you aware of the global water crisis? Yes No

If yes, where did you hear about it? Please check all that apply

- Local Newspaper
- Television
- Posters around University Buildings
- Radio
- Social Network
- Word of Mouth
- Class

6. What is your primary source of drinking water? Please check all that apply.

- Water fountain Bottled water Tap Water

B) Facts and Actions in Entirety

FACTS:

1. Know YOUR Water

85% of Ann Arbor drinking water starts in the Huron River. South of Ann Arbor there are multiple wells that provide the remaining 15%.

www.a2gov.org/government/publicservices/water_treatment

2. Know EARTH's Water: IN CRISIS

The Global Water Crisis is a severe freshwater shortage. Shockingly, only about 3% of the Earth's water is freshwater, meaning 97% of Earth's water is undrinkable.

<http://ga.water.usgs.gov/edu/watercyclefreshstorage.html>

- 1.1 billion people in the world lack access to safe drinking water.
- Half of the world's hospital beds are filled with people suffering from water related illnesses.
- Half of the world's 500 major rivers are seriously depleted or polluted.
- In China, India and Indonesia, twice as many people are dying from diarrheal diseases perpetuated by unsanitary water as from HIV/AIDS.

<http://blueplanetnetwork.org/water/facts>

3. Too Much...

The average American uses 175 gallons of water per day while the average African uses 5.

- More than 40 million hours are wasted each year in Africa by women and children gathering water.
- Women in Africa and Asia, on average, travel 3.7 miles to reach their nearest safe water source.
- The average American's daily activities require them to walk less than 1200 feet.

<http://www.independent.co.uk/life-style/the-average-american-walks-less-than-400-yards-a-day-preferring-the-car-to-shanks-pony-are-the-british-heading-the-same-way-1196044.html>

<http://blueplanetnetwork.org/water/facts>

4. You Just Drank TWO GALLONS!

When you buy a disposable plastic water bottle, the water you consume is two-faced! Although you may think drinking from a one-time-use bottle is eco-friendly due to its recyclability, most of its material will not be reused and becomes more wasteful than you may realize.

- It takes 5 liters of water to make 1 liter of bottled water.

<http://blueplanetnetwork.org/water/facts>

5. Tap that Tap

Don't believe the bottle hype: The EPA holds tap water to a much higher standard than the FDA holds bottled water and our Ann Arbor Water Treatment Plant performs over 150,000 analyses annually. The water is tested for 280 different substances, although most have yet to be found. Best of all, it tastes great! Ann Arbor tap water is a frequent winner of the regional Michigan water tasting competition.

www.a2gov.org/government/publicservices/water_treatment

6. BE about "RE-"

Refill Stations for reusable water bottles! As of now, there are two refill stations in Mason Hall on both sides of the Fish Bowl entrance. Using these stations is easy and convenient; they even tell how much plastic bottle waste you are preventing on a digital screen! Also, the Union's convenient store U-Go's has recently installed a water refill station. By purchasing a U-Go's water bottle you receive free water refills.

<http://uunions.umich.edu/munion/food/restaurants/ugos/>

7. Hidden Water: You Consume More Than You Think!

A vast majority of the water you use, you never actually see. This water is commonly referred to as hidden water, or in some instances, virtual water.

- It takes 689 gallons of water to make 1 gallon of beer .
- It takes 1321 gallons of water to make 500 sheets of paper, or 1 University of Michigan student's allotment of printing paper per semester.
- It takes 18 gallons of water for 1 apple

<http://environment.nationalgeographic.com/environment/freshwater/embedded-water/>

- It takes 2,900 gallons of water to produce one-quarter pound of hamburger meat (just the meat).

<http://blueplanetnetwork.org/water/facts>

8. The Buzz about “Virtual Water”

The water you consume is not limited to what you drink, eat, or see in you daily habits (we know about your excessively long showers). A huge amount of water is used in meeting our everyday energy demands.

How Much Water Did it Take to Make These Energy Sources?

On average:

- Natural Gas, .1 gallon per kilowatt hour (a 100 watt light-bulb on for 10 hours equals 1 kilowatt hour).
- Oil, 1.01 gallons per kilowatt hour.
- Biomass energy, 66.57 gallons per kilowatt hour.
- Wind Power, 0 gallons to operate.
- Solar Power, .26 gallons to operate per kilowatt hour.

<http://environment.nationalgeographic.com/environment/freshwater/embedded-water/>
<http://www.wisegeek.com/how-much-is-a-kilowatt-hour.htm>

9. Respect Your Elders

There is a limited amount of water; it is a non-renewable resource!

- Our seas today were the dinosaurs as well.

<http://blueplanetnetwork.org/water/facts>

10. Water Does the Body Good!

It is recommended a person consumes about 2 liters of drinking water per day.

<http://www.mayoclinic.com/health/water/NU00283>

- It is projected that 70% of Americans are always in a state of dehydration because of insufficient water consumption.

- Common symptoms of dehydration include nausea, fatigue, headaches, dry mouth, and reduced mental acuteness.
- Severe dehydration can actually cause skin to lose its firmness and elasticity, creating wrinkles.

<http://imva.info/index.php/2010/09/dehydration/>

ACTIONS:

1. Do Your Research

Search online and find ample information in articles and statistics concerning the Global Water Crisis. Understand the life of water and easier sympathize with its plight.

2. Know Your Water Footprint

Visit this site {site} to calculate your impact on the remainder of our most essential resource using the National Geographic Water Footprint Calculator.

3. Don't Fear the Faucet

Ann Arbor's water is highly touted as some of the cleanest in the nation, utilize our amazing position and drink from the tap; it's clean, it really is!

4. Ban the Bottle

Forget those sparkly and deceiving disposable water bottles. Reduce your water footprint, save money, and save water!

5. Reach for the Reusables

Purchase a reusable water bottle from a campus or grocery store. They'll keep your wallet fatter in the long run and it's an easy and convenient way to show you care about the environment.

6. More Refill Stations

For those reusable water bottles, The University of Michigan has two custom refill stations sandwiching the main Fish Bowl entrance. Send an e-mail to {email} and let's make it clear we want more all over campus.

7. Make Good with the Food Chain

Eat lower on the food chain. Meats need substantially more water to get from pasture to plate.

8. Eat Local

Get out to a local Farmer's Market and discover healthy foods that use less water on their way to becoming purchasable.

9. Encourage

Be an example for others to follow. The effort to combat the water crisis must be collective, so sharing knowledge of the problem and influencing others is essential. Participate in Water Semester activities and spread their word!

10. Stay Tuned

Winter term 2011 is a water-themed semester, so watch for events, sign up for e-mails, make a difference on your campus!

C) Water Literacy Communication Tactics

| Communication Tactics | Plan and Purpose | Intended Design | Implementation Directions |
|-----------------------|--|---|--|
| Coasters | <ul style="list-style-type: none"> -A coaster because it is informational but also useable -gives a brief look into necessary water information and also additional information that links to drinking water practices -not another handout that will be thrown away with stacks of mail and handouts | <ul style="list-style-type: none"> -Recycled paper 3.5”X3.5” -Double sided, FACTS on one, ACTIONS on the other -About four of each with little graphics since literature will take up the majority of the coaster space. -Possibly only water theme semester logo integrated within or behind the text -(See example coaster design) | <ul style="list-style-type: none"> -December/January -Print near or before water theme semester Coasters are intended to be handed out in place of a cardstock paper -Hand out in mailboxes to off campus students, dorm mailboxes, at water theme semester events, etc. -<u>VGKids</u> is a merchandise printing company that DOES print coasters. |
| Bus Signs | <p>Students who ride university Buses include those who live on campus as well as off. Also these riders tend to be frequent and repetitive, which would ensure students would see the series of signs and would likely follow the collection of facts and actions generating more interest and attention.</p> | <p>Individual signs that house one fact or one action. To be hung simultaneously in the buses and switched out weekly. Corresponding signs will have similar attributes such as color, font, and design elements. All signs will contain key design elements from the water semester.</p> | <ul style="list-style-type: none"> -Design posters including the 5 chosen pairings of one fact/one action. -Rotate pairs weekend or biweekly -See full Implementation Directions for Fact/Action Pairings |

| | | | |
|---------------------------------|--|---|---|
| <p>Diag Board</p> | <p>Students who are walking through the Diag aren't looking for a lot of written information to read, they will be attracted to simple, visually presented ideas. These banners need to be simple and to the point and yet encompass the goals of the entire water theme semester.</p> | <p>There will be several posters designed that touch on some of the main themes that we have identified through our research. Learning more is the key for these posters. They need to attract the viewer into researching the idea further through the website</p> | <p>There will be several different posters that are rotated depending upon the availability and cost. Two of the main ideas that we need to stress are the hidden water component and the 'educate yourself' action. Several other sketches will be available.</p> |
| <p>Slide and Quiz Questions</p> | <ul style="list-style-type: none"> - slides serve to make our point visually striking by displaying informational and impactful images to a viewing audience. They will help solidify key themed images that signify the semester. - a quiz to help its takers realize their own lack of knowledge concerning water. | <ul style="list-style-type: none"> - slides: PowerPoint slideshow with large-scale images. - quiz: select list of questions appearing on PowerPoint for audience participation, the full list of questions remains on the water literacy site, which will be listed along with the presented questions. | <ul style="list-style-type: none"> - utilize slides in scenarios with a large, preferably seated, viewing audience. - can be used before/between presenting speakers. - the quiz can be given in scenarios when paper and writing implements are realistic and practical for audience use. |

Complete Implementation Directions

1) Coasters

Design

- The coaster will include only facts and actions that have to do with drinking practices and other basic water info that is necessary (ex. leave out hidden water of clothes but include hidden water fact about plastic water bottles)
- Wording must be concise with as much information as necessary to be informative. Also must be visually appealing because it will not have much graphic representation because of limited coaster size.
- Possibly only water theme semester logo integrated within or behind the text

Implementation

- We have called VG Kids which is based out of Ypsilanti and it is possible to print on a thick coaster-like material in various sizes. Two coaster examples are on the website under 'stationary'
- <http://www.vgkids.com/>

water facts

Know YOUR water
By knowing where your water comes from you will feel a greater sense of ownership over your water consumption. Here are the facts: 85% of Ann Arbor drinking water starts in the Huron River.

Know EARTH's water: IN CRISIS
The Global Water Crisis is a severe freshwater shortage. Shockingly, only about 3% of the Earth's water is Freshwater. Meaning 97% of Earth's water is undrinkable.

You just drank TWO GALLONS!
When you drink from a plastic water bottle the water you are consuming is more than what you actually drink! It takes 5 liters of water to make 1 liter of bottled water. In the long run you can conserve water and energy simply by using a refillable water bottle.

Tap that tap
Don't believe the bottle hype: The EPA holds tap water to a much higher standard than the FDA holds bottled water and our Ann Arbor Water Treatment Plant performs over 150,000 analyses annually. Ann Arbor Tap water is a frequent winner of the regional Michigan water tasting competition.

Water does the body good!
It is recommended that a person consume about 2 liters of drinking water per day.

Know your water footprint
Visit this site (site) to calculate your impact on the remainder of our most essential resource using the National Geographic Water Footprint Calculator.

Don't fear the faucet
Ann Arbor's water is highly touted as some of the cleanest in the nation. Utilize our amazing position and drink from the tap; it's clean, it really is!

Ban the bottle
Forget those sparkly and deceiving disposable water bottles. Reduce your water footprint, save money, and save water!

Reach for the Reusables
Purchase a reusable water bottle from a campus or grocery store. They'll keep your wallet fatter in the long run and it's an easy and convenient way to show you care about the environment.

water actions

2) Bus

Eat Lower on the Food Chain

Meats need substantially more water to get from pasture to plate than veggies do from planting to plate.

For more information visit: WATERSEMSTER.COM

Facts and Actions Paring:

1) Main text: Only 3% of the World's Water Supply is Fresh Water

Sub text: In China, India and Indonesia, twice as many people are dying from diarrheal diseases as from HIV/AIDS

Water mark text: WATER IN CRISIS

Main text: It's easier to feel for the water when you know of its life.

Subtext: You educate yourself on fractions, shouldn't you also on your water?

Water mark text: DO YOUR RESEARCH

2) Main text: You just drank two gallons!

Sub text: It takes 5 liters to make 1 liter of bottled water

Water mark text: PLASTICS=WATER

Main text: Ban the Bottle

Sub text: Forget those sparkly and deceiving disposable water bottles. Reduce your water footprint, save money, and save water!

Water mark text: DISPOSABLE=WASTE

3) Main Text: Tap that Tap

Sub text: Ann Arbor Tap water is a frequent winner of the Regional Michigan Water Tasting competition.

Water mark text: SAFE WATER

Main Text: Reach for the Reusables

Sub text: Reusable water bottles are good for your wallet and the environment

Water mark: SAVE MONEY

4) Main Text: You Consume More than You Eat

Sub text: It takes 689 gallons of water to make 1 gallon of beer

Water mark: HIDDEN WATER

Main text: Eat Lower on the Food Chain

Sub text: Meats need substantially more water to get from pasture to plate than veggies do from planting to plate.

Water mark: EAT LOWER

5) Main Text: The Buzz about Virtual Water

Sub text: A huge amount of water is used in meeting our everyday energy demands. Oil consumes 1.01 gallons of water/ kW hour

Water mark: RETHINK YOUR ENERGY

Main Text: Your Water Footprint

Sub text: Google “National Geographic Water Footprint”, or get out a pen...

<http://environment.nationalgeographic.com/environment/freshwater/water-footprint-calculator/>

Water mark: CALCULATE YOUR IMPACT

Explanation of Communication Plans:

After conducting observations on current bus signage on University of Michigan buses it became clear to the team that the most successful signs had three main design elements: a main text, a sub text, and then an underlying design lead message. This three-step design tactic is successful because the main text grabs the readers’ eyes, and then the sub text fills the readers in on more specific details or explanations. The background message is also vital to a successful sign, as it helps to make the sign more dimensional. The addition of a background layer makes the sign appear more “rich” through the thicker texture of words and design. As mentioned in the table, the Water Themed Semester graphic designer will pull together the designs for the bus signs so that it is evident for the reader that these bus signs have ownership to the semester. A clear main text, an explanatory or thought provoking sub text, and the addition of an underlying message will work together to create a successful bus sign campaign.

3) Diag board design



Blue is Gold
Know the value of your water

<http://watersemester.com/>

water
WINTER 2011 LSA THEME SEMESTER



Where is your
water
footprint hiding?

Find out more
www.watersemester.com

water
WINTER 2011
THEME SEMESTER LSA

4) Quiz

Where does Ann Arbor drinking water come from?

A. Lake Michigan B. the Huron River C. underground wells D. Dexter

ANSWER: B & C

On average, how many hours per day do women of Sub-Saharan Africa spend fetching water?

A. 2 hours B. 4 hours C. 6 hours D. 8 hours

ANSWER: C

Can you unscramble this anagram and find the term used to describe water we consume without noticing?

TREE WHIDDAN

ANSWER: HIDDEN WATER

True or false?

African families consume less water per day than American individuals, on average.

ANSWER: TRUE (one thirty-fifth the amount)

About how many people around the globe lack access to sufficient water resources?

A. 200 million B. 550 million C. 775 million D. 840 million

ANSWER: D

True or false? The average American consumes most of his water by drinking.

ANSWER: FALSE (the Average American CONSUMES 175 gallons per day but is recommended to DRINK 8 glasses)

Can you unscramble this anagram and find the term used to describe our individual impact on the water supply?

RITA POENTROWFT

ANSWER: WATER FOOTPRINT

This example is the format of the quiz in PowerPoint. It includes interesting and water-related digital effects to coax audience participation and interaction.

Where does Ann Arbor drinking water come from?

- A. Lake Michigan
- B. the Huron River
- C. underground wells
- D. Dexter

water
2011 LSA WINTER THEME SEMESTER

