

Don't send Mr. Bacon down the drain, learn about FOGs and use your brain!

Redmond Water Utilities Strategic Communication Plans: Creating Environmentally Conscious K-12 Students

Fall 2015 • Journalism

Megan Ganim • Journalism and Communications Laurie Honda, PhD • Assistant Professor • Public Relations



Acknowledgements

The author would like to express gratitude to those who helped with this project while taking time out of their busy schedules to further the success of this report. Thank you to the City of Redmond staff for your involvement with the School of Journalism and Communication, particularly Chris Miccolis, Redmond Wastewater Division Manager, who diligently assisted students with questions and provided additional resources needed. Additionally, thank you to Dr. Honda for her assistance and contributions that were instrumental to the completion of this report.

About SCI

The Sustainable Cities Initiative (SCI) is a cross-disciplinary organization at the University of Oregon that promotes education, service, public outreach, and research on the design and development of sustainable cities. We are redefining higher education for the public good and catalyzing community change toward sustainability. Our work addresses sustainability at multiple scales and emerges from the conviction that creating the sustainable city cannot happen within any single discipline. SCI is grounded in cross-disciplinary engagement as the key strategy for improving community sustainability. Our work connects student energy, faculty experience, and community needs to produce innovative, tangible solutions for the creation of a sustainable society.

About SCYP

The Sustainable City Year Program (SCYP) is a year-long partnership between SCI and one city in Oregon, in which students and faculty in courses from across the university collaborate with the partner city on sustainability and livability projects. SCYP faculty and students work in collaboration with staff from the partner city through a variety of studio projects and service-learning courses to provide students with real-world projects to investigate. Students bring energy, enthusiasm, and innovative approaches to difficult, persistent problems. SCYP's primary value derives from collaborations resulting in on-the-ground impact and expanded conversations for a community ready to transition to a more sustainable and livable future.

SCI Directors and Staff

Marc Schlossberg, SCI Co-Director, and Associate Professor of Planning, Public Policy, and Management, University of Oregon

Nico Larco, SCI Co-Director, and Associate Professor of Architecture, University of Oregon

Megan Banks, SCYP Program Manager, University of Oregon



About Redmond, Oregon

Redmond, located in Deschutes County on the eastern side of Oregon's Cascade Range, has a population of 27,427 and is one of Oregon's fastest growing cities. The city's administration consists of an elected mayor and city council who appoint a City Manager. A number of Citizen Advisory Groups advise the City Manager, mayor, and city council.

From its inception, Redmond has had its eyes set firmly on the future. Redmond was initially founded in 1905 in anticipation of a canal irrigation project and proposed railway line. Redmond is on the western side of the High Desert Plateau and on the eastern edge of the Cascade mountain range. Redmond lies in the geographic heart of Oregon. Redmond focuses on its natural beauty, reveling in the outdoor recreational opportunities (camping, hiking, skiing) offered by the Cascade mountain range, four seasons climate, and 300+ days of sunshine annually.

Redmond has been focused on innovative, sustainable growth and revitalization while preserving the city's unique history and culture. In 1995, the City of Redmond began to make critical investments in revitalizing its downtown core. The initial phase of renovations strove to balance growth, livability and historic preservation by rerouting Oregon State Highway 97, improving critical infrastructure, and improving the facades of over 100 buildings in the historic center. The City of Redmond has worked with local businesses to revitalize retail, job creation and housing. To facilitate private sector buy-in, Redmond offers innovative incentive programs such as the Façade Rehabilitation and Reimbursement Grant and the "Downtown Jumpstart" loan competition, as well as Design Assistance.

Often referred to as "The Hub" of Central Oregon, Redmond is situated at the crossroads of US Highway 97 and US Highway 126. It is served by the Burlington Northern Sante Fe Railway, Cascades East Transit Regional Public Transportation Service, as well as a state of the art regional airport served by multiple commercial airlines and FedEx and UPS. In addition to its geographic location, Redmond is viewed as central to business growth in the region. In 2014, Central Oregon Community College opened a 34,300 square foot Technology Education Center to recruit new businesses and expand existing businesses in Central Oregon. Above all, Redmond prides itself on being a family-friendly city which was the motivation for the work presented in this report.



Course Participants

Emory Babb, Public Relations Undergraduate Drew Benditt, Public Relations Undergraduate Allison Burk, Public Relations Undergraduate Haley Coveny, Public Relations Undergraduate Megan Ganim, Public Relations Undergraduate Sarah Hancock, Public Relations Undergraduate Andrea Kennedy, Public Relations Undergraduate Sydney Kiest, Public Relations Undergraduate Sijie Li, Public Relations/Advertising Undergraduate Madeline McClenaghan, Public Relations Undergraduate Samantha Nash, Public Relations Undergraduate Tyler Ogoshi, Public Relations Undergraduate Nicole Rideout, Public Relations Undergraduate Jason Selby, Public Relations Undergraduate Nathan Tarbet, Public Relations Undergraduate Laine Van Sickle, Public Relations Undergraduate Ashley Watkins, Public Relations Undergraduate Samantha Wellington, Public Relations Undergraduate Marisa Wong, Public Relations Undergraduate

Table of Contents

Executive Summary	7
Introduction	8
Strategic Relations Plan	9
Team One	9
Team Two	10
Team Three	12
Team Four	13
Team Five	16
Overall View of Findings	17
Conclusion	19
Appendix A	20
Appendix B	21
Appendix C	22

This report represents original student work and recommendations prepared by students in the University of Oregon's Sustainable City Year Program for the City of Redmond. Text and images contained in this report may not be used without permission from the University of Oregon.

Executive Summary

Redmond Wastewater Division (RWD) partnered with a University of Oregon (UO) School of Journalism and Communications public relations course, J453: Strategic Planning and Cases for Public Relations, to increase awareness and educate Redmond elementary, middle, and high school students about water conservation and contamination. In order to prevent the growth of a severe water conservation and contamination issue in Redmond, the target audience must understand why and how to avoid flushing fats, oils and greases (FOGs) down the drain. Students addressed this issue in five teams of three to four people that created original strategic communications plans containing several sections: Background; Situation and Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analyses; Goal; Objectives; Strategies; Tactics; Key Publics; Key Messaging; Evaluation; Calendar; and Budget.

Each group developed several different strategies and tactics to help solve the RWD's pressing communications issue by increasing Redmond K-12 students' awareness, attitudes, and behaviors toward water conservation and contamination. During the final week of the course, student groups shared their different key strategies and tactics with their peers and members of Redmond's City Council, which included:

- Fostering competition among K-12 students as an engagement tool, such as poster and logo design competitions.
- Developing an internship program at the RWD for high school students.
- Organizing field trips to the RWD for Redmond K-12 students.

Introduction

The Redmond Water Division (RWD) needed a strategic communication plan that focused on water conservation and contamination prevention to help prevent further damage to its aging pipe infrastructure and inform residents of the importance of water conservation and proper disposal of fats, oils and greases (FOGs) and other particles larger than three millimeters.

Students used the information presented by the RWD to understand the initial problem. Due to the lack of awareness, many Redmond citizens are not properly disposing of potentially harmful products including FOGs, disposable wipes, household and automotive chemicals, and non-compliant industrial discharges, and are putting them down the drain. Improper disposal of these items can result in increased pipe maintenance costs, unnecessary water usage, and negative environmental impacts such as pollution. The RWD seeks assistance in creating an effective strategic communication plan that effectively targeted Redmond K-12 students to: 1) increase K-12 students' awareness of water conservation and FOGs; 2) change students' attitudes toward water conservation and FOG disposal; and 3) change students' behaviors pertaining to water conservation and FOGs.

Chris Miccolis, RWD Manager, visited the J453 course on Monday, October 19, 2015 during which he outlined the desired outcomes for the RWD. The communication goals are three-fold. First, UO students needed to create a strategic communication plan that increases K-12 students' awareness of what benefits water, storm water, and wastewater utilities provide for its residents. Redmond residents need to be aware that their actions can prevent harm to utility operations. Second, the plan should change K-12 students' attitudes about water conservation and activities that pollute water systems. Lastly, strategic communication plans sought to change K-12 students' behaviors to better preserve Redmond's water quality.

To create these strategic communication plans, J453 student groups met both inside and outside of the classroom to brainstorm, write, edit, and finally present their collaborative efforts in both written and oral formats.

Strategic Communications Plan

The purpose of this project is to strategically develop a way to effectively communicate to the target audience of Redmond elementary, middle, and high school students (and their parents) that their actions can directly harm or protect the city's water quality and quantity. Among the five groups of students, each group developed a goal for their plans, followed by nine objectives, and between 10-20 different strategies and tactics. This information is presented in summary, broken out by team in the following pages.

Team One

Goal: Increase Redmond K-12 students' knowledge of water conservation and best practices in order to decrease flushing fats, oils and greases down drains, thusly decreasing tax-payers' financial responsibility for drainage de-clogging.

Objectives:

Below is a summary of elementary, middle, and high school audience objectives:

Awareness: Increase awareness among Redmond elementary, middle, and high school students about the effects that they can have on natural water resources and how their water conservation efforts can prevent the disposal of FOGs.

Attitude: Encourage K-12 students' positive engagement with RWD and allow for an understanding of how students personally impact the Redmond Water System while also instilling a sense of importance in FOG prevention.

Behavior: By engaging in water conservation practices at home and the community, Redmond K-12 students can have discussions with school administration to take pledges to save water and prevent drainage FOG disposal.

Strategies and Tactics:

Below is a summary of key strategies and tactics for reaching Redmond elementary, middle, and high school students:

Elementary school students:

- Assemblies: Host an assembly where high school students in the Water Division Club come dressed up as the super heroes and enact a scene where they "save Redmond's water system" (i.e., flying in and turning off the sink as a child is brushing their teeth).
- Clogged pipe demonstration during field trips: Have examples of clogged pipes on display during school visits and site tours, showing students what a clogged pipe actually looks like.

Middle school students:

- Educate students about the cost of water waste: Give students a fake bill
 of how much their school's water usage would cost split between each
 student.
- Video competition: Have each middle school create a 60-second video that helps bring awareness to the measures they are taking to conserve water on their respective campuses.

High school students:

- Start a water conservation club: A RWD employee can work closely with the group to discuss communication tactics on how to best reach and teach Redmond residents about the importance of water conservation and contamination.
- Mentor program: RWD employees train high school students the basics of proper FOG disposal. The students will then teach grades below them what they have learned.

Team Two

Goal: Increase awareness among Redmond K-12 students about the harmful side effects of putting FOGs and non-flushable materials in the water systems along with the importance of water conservation efforts, in order to change their subsequent attitudes and behaviors about doing so.

Objectives:

Below is a summary of elementary, middle, and high school audience objectives:

Awareness: Increase awareness about water issues and water conservation among Redmond K-12 students by 50 percent by July 2016.

Attitude: Improve K-12 students' attitudes about water conservation efforts and the importance in maintaining the Redmond Water systems by 30 percent by July 2016.

Behavior: Decrease the amount of FOGs in the water systems by 15 percent while increasing K-12 students' parental use of AquaHawk online water usage monitoring by 25 percent by July 2016.

Strategies and Tactics:

Below is a summary of key strategies and tactics for reaching Redmond elementary, middle, and high school students:

Elementary school students:

- Field visits to RWD's Treatment Plant: For relevant science classes, the schools, in conjunction with the RWD, will host field trips to the RWD's treatment facilities. The students will learn about the division, water system infrastructure, the process of water treatment, and the importance of water conservation efforts.
- Visual Narrative: Name and personify the water utility infrastructure (examples: "Sewer Sam", "Petey the Pipe", "Freddy FOG", "Allie Aqueduct"). Use these characters at all times when discussing the RWD's goals.

Middle school students:

- RWD Branded Paraphernalia: Create RWD branded paraphernalia including water bottles, hats, key chains, pens and stickers. Use this paraphernalia as prizes to hand out to students during middle school presentations.
- Inter-school competition: Hold a competition, called "Compete to Conserve," between the Redmond middle schools that asks students to compete to see which school can conserve the most water. This competition will examine what school uses the least amount of water that particular week or month as well as how many students from the school follow the RWD's social media accounts.

High school students:

- H2O Ambassador Program: Provide a community-based communications internship opportunity for high school students called "H2O Ambassadors." These high school students will act as interns for the RWD. Their responsibilities will include managing RWD's social media accounts by making posts and tracking social media engagement. The H2O Ambassadors will also help to educate younger students about the RWD's goals through school visits and class presentations at Redmond middle and elementary schools. The program will be an incentive for high school students seeking a paid job, volunteer hours or extracurricular involvement to put on college applications. Of the applicants, ten will be selected to participate in the program and two of these ten interns will be chosen for the paid social media position.
- Social Media: Implement one of two hashtags (using Instagram and Twitter) during the time when students are hearing water presentations

by H2O Ambassadors and the RWD. Use #WaterMatters or #WaterWeek2016 (#WW16 for short). This hashtag is to be used on all students' posts related to the RWD and its goals.

Team Three

Goal: Increase awareness about water conservation and minimizing non-biodegradable waste and FOGs in the water system by outreach to Redmond K-12 students, thus creating interest and dialogue within Redmond family households.

Objectives:

Below is a summary of elementary, middle, and high school objectives. Each objective was the same for each target audience.

Awareness: Increase awareness and understanding about FOGs and water conservation among Redmond K-12 students to increase their knowledge of these topics by 75% by July 1, 2016.

Attitude: Change Redmond K-12 students' attitudes about water conservation, specifically to create a sense of control over their family's water bill and their city's water by a 40% increase by July 1, 2015.

Behavior: Have a positive effect on Redmond K-12 students' abilities and willingness to sort and properly identify FOGs and conserve water in their daily lives, specifically to decrease FOGs in the water supply by 40% by July 1, 2016.

Strategies and Tactics:

Below is a summary of key strategies and tactics for reaching Redmond elementary, middle, and high school students:

Elementary school students:

- Introduce Mr. Bacon: Mr. Bacon (depicted on this report's cover) is a
 cartoon character that will lead elementary students through lessons
 in an interactive and engaging way. Mr. Bacon's stories always
 involve avoiding putting FOGs down drains in short, mini-adventure
 driven narratives. Children in this age group respond well to animated
 characters; therefore, Mr. Bacon will be a helpful visual aid to keep the
 students' attention.
- Assignments: Assign students the task of writing and illustrating their own Mr. Bacon short story, asking them to use their imaginations to create an original story where Mr. Bacon must save a FOG from the drain, or asking them to come up with a new character of their own creation to represent the FOGs, demonstrating their active and

applicable understanding of FOGs in daily life. Cover artwork for these short stories will be displayed at Water Week.

Middle school students:

- Assignments: Aqua-Hawk is Redmond's online water measurement tool
 per household. Give students a project to record water use in their own
 household and compare that to local and national averages. This will let
 them see not only how much water is used on a personal level but on a
 large scale as well.
- Competitions: Students will participate in games designed by high school students asking them to sort various foods based on the proper ways to dispose of them.

High school students:

- Research project: Assign research projects to students asking them to choose a topic within water conservation to study. Assign students to either write a short paper or present a poster/infographics (see Appendix C) that goes into detail about both the local and global impacts of water consumption, conservation, and contamination.
- YouTube video: Students will be put into groups and assigned to create
 a fun YouTube video about water conservation, FOGs, or both. The
 style of the video will be left up to the students, so long as it is on topic,
 accurate, appropriate, and original. The videos will be submitted into
 a contest among all Redmond high schools, with the winning videos
 shown during Water Week.

Team Four

Goal: Increase awareness among Redmond elementary, middle, and high school students about water conservation and FOGs, in order to instill an increased sense of personal responsibility and a call-to-action.

Objectives:

Below is a summary of elementary, middle, and high school audience objectives:

Awareness: Increase educational outreach and awareness about water conservation and keeping FOGs out of the system among Redmond's K-12 students by 50 percent by July 1, 2016.

Attitude: Improve students' attitudes towards water conservation and keeping FOGs out of the system among Redmond's K-12 students by 30 percent by July 1, 2016.

Behavior: Decrease the improper disposal of FOGs as well as decrease water consumption among Redmond's K-12 students by 20 percent by July 1, 2016

Strategies and Tactics:

Below is a summary of key strategies and tactics for reaching Redmond elementary, middle, and high school students:

Elementary school students:

- UO internship program: The RWD will partner with the UO to create a 12-week internship program with 10 undergraduate students who are interested in the fields of Education and Environmental Science. By working with the College of Education as well as the Environmental Studies Program, interested students will act as leaders among the Redmond elementary schools and create a curriculum that focuses on water conservation and keeping FOGs out of the system. Students will be required to take a trip to Redmond three times during their internship and implement their curriculum within classrooms as well as in assemblies. There will be one intern per elementary school with a total of five interns. Interns will receive a total stipend of \$650 that will cover food and travel costs, as well as any other miscellaneous costs incurred during the course of the internship.
- Print collateral: A newsletter will be distributed to students via email. as well as given to students during in-classroom visits from interns and ambassadors. The newsletter will be intended for parents and guardians of students at the designated Redmond elementary schools that depict what their children learned from the RWD and how they can implement these strategies at home. The initial newsletter sent to parents will explain the UO Internship Program and high school ambassador program and what students will be doing in the classroom. In addition, it will explain why the curriculum is essential in targeting elementary students. A second newsletter will be sent out during the last week of the program in order to re-affirm what was taught in the classroom regarding the AquaHawk system (for fourth and fifth graders only) and explain what games students learned in class regarding water conservation and contamination. The newsletter will feature photos, as well as teacher profiles about how this program positively influenced a certain teacher. This newsletter will not only aim to increase conversation efforts among parents and children, but it will also encourage readers to keep FOGs out of the system.

Middle school students:

 Classroom lesson plans: Students will be handed their own personal coloring sheets that relate directly to water conservation and FOG prevention. These sheets will not only contain fun coloring materials for students, but they will also have guizzes and activities that ask

- students to identify FOGs and tips on conserving water. Students will be encouraged to hang their artwork around the classroom and then take the coloring sheets home at a later date. The interns will distribute coloring sheets to students during their last classroom visits.
- Wastewater plant field trips: Middle school students can take field trips
 to the Redmond Water Plant in order to get students thinking about
 what they learned during the six months with the UO interns and high
 school ambassadors. Each classroom participating will be able to
 receive one tour of the Redmond Wastewater Plant. As the tour is taking
 place, students will be asked to recall what they learned throughout the
 program. RWD staff will be giving the tours.

High school students:

- Partnerships: Partner with local and chain restaurants including Burgerville, Starbucks, and Jersey Boys Pizza. A \$50 gift card will be given to all first place students who participate in Water Conservation Week and the Water Conservation Challenge. Second place winners will receive a \$25 gift card. There will also be three to four \$10 gift cards that will be distributed throughout Water Conservation Week to students who participate in particular activities throughout the entire week.
- Create an Environmental Club: High school ambassadors will be asked
 to start an Environmental Club in their school with the help of the UO
 interns if one does not already exist. Ideally this club will meet once a
 week and will attempt to increase water conservation schoolwide as
 well as increase awareness about FOG conservation. The hope for this
 club is to have high school ambassadors act as catalysts among their
 schools to continue water conservation and FOG prevention efforts once
 their program is complete.

Team Five

Goal: To educate and prompt Redmond K-12 students to reduce both their water consumption and the number of harmful and non-disposable products (FOGs) put into the water system.

Objectives:

Below is a summary of elementary, middle, and high school audience objectives:

Awareness: Increase Redmond K-12 students' awareness of FOGs and other non-disposables by 75% by May 1, 2016

Attitude: Provide Redmond K-12 students with the tools and knowledge to change their water consumption and conservation behaviors.

Behavior: Improve Redmond K-12 students' attitudes towards water conservation by 30% by May 1, 2016

Strategies and Tactics:

Below is a summary of key strategies and tactics for reaching Redmond elementary, middle, and high school students:

Elementary school students:

- Coloring book: Design and distribute a coloring book/interactive 'take-home' packet for elementary school students, providing understandable information about non-disposable waste and water conservation using slogans and logos created by Redmond high school students.
- Field trips to RWD: Create an understandable and hands-on plant tour for the kids to enjoy and learn from, providing them with a unique opportunity to actually see what goes into the water system and how disposed materials are handled.

Middle school students:

- Posters: Create visually striking and informative infographics that educate students about FOGs and non-disposables. Put these posters in the bathrooms, hallways, and classrooms.
- Water conservation competition: Measure the total water usage from both Obsidian and Elton Gregory Middle Schools beginning February 29, 2016. Monitor this consumption using Aquahawk two months later and evaluate the results.

High school students:

 Radio and TV advertising: Target high school students through radio advertisements on the local Top-40 station (KXIX, 94.1) in the morning and mid-afternoon when students are most likely to be commuting to and from school. Arrange for the ads to be played three times per day for one month-once in the morning (during common school commute times), once at lunch, and once around the time that school generally lets out (2-3 p.m.).

 City-wide art competition: Create/sponsor a competition for Redmond high school students to design a water conservation slogan and matching logo that represent the goals of the RWD that will be used in materials distributed to Redmond elementary schools.

Overview of Findings

Among the five groups of students, each group came up with 10 to 20 different strategies and tactics, yet many of these tactics overlapped in some capacity.

A tactic that most groups recommended was for RWD to partner with high school "brand ambassadors" to teach younger students awareness of water conservation. For example, in order to increase awareness about water issues and water conservation among Redmond high school students, one student group created a strategy that provided a community-based communications internship opportunity for high school students called "H2O Ambassadors." These ambassadors would help educate younger students about the division's goals through school visits and class presentations at Redmond middle and elementary schools. Another group in the class presented this idea in a similar way by encouraging middle school and high school partnerships. In this proposal, members from the high school water conservation club act as mentors to establish middle school conservation clubs. The high school club members would make weekly visits and have students work towards putting together a presentation on how to conserve water.

Another common tactic students recommended implementing is poster designs for their peers that promote the global impact of water consumption, conservation, and contamination. Student teams also suggested tactics that engaged elementary audiences through coloring books that encourage conservation. Targeted towards elementary students, a group named a character "Renny the Raindrop" (see Appendix A) in order to personify the water utility infrastructure.

One of the most compelling tactics presented by the student groups was the personification of the cartoon character called "Mr. Bacon" (see Appendix B). To teach K-5 students how to save water and how to properly dispose of FOGs, Mr. Bacon will lead students through lessons in an interactive and engaging way. Mr. Bacon's story involves the avoidance of putting FOGs down drains in short, mini-adventures.

Another common tactic in the strategic communications plans compiled by each group was to send K-12 students on fieldtrips or "site tours" of the RWD. Some groups suggested that on these tours, students could sign pledges to talk with their families about water conservation and contamination. These visits provide students with the opportunity to see the processes of filtering and distributing water to the city and gives students a sense of the amount of time, effort, and money the city puts into water.

Finally, a common tactic among groups' strategy recommendations included competitions for middle school and high school students that encouraged awareness of water conservation. Groups presented ideas such as a city-wide art competition that encouraged students to design a water conservation slogan and matching logo that presents the RWD's goals. These slogans would be used on materials distributed to Redmond elementary schools. Another group used competitions to ask middle school students to compete in games designed by high school students, such as sorting various foods based on proper ways to dispose of them.

Conclusion

After J453 students worked to develop in-depth, written strategic communication plans for the RWD, students had the opportunity to present their findings to Chris Miccolis, Wastewater Division Manager, and two members of the Redmond City Council. The group that created the Mr. Bacon cartoon character surprised the audience at the end of their presentation when a student dressed up in a bacon costume suddenly appeared at the front of the classroom, to the audience's delight and roaring laughter. Meanwhile, another group who created "Renny the Raindrop" passed out crayons and coloring sheets as depicted in Appendix A for the audience to gain a better understanding of the strategies and tactics being presented in a fun, interactive manner.

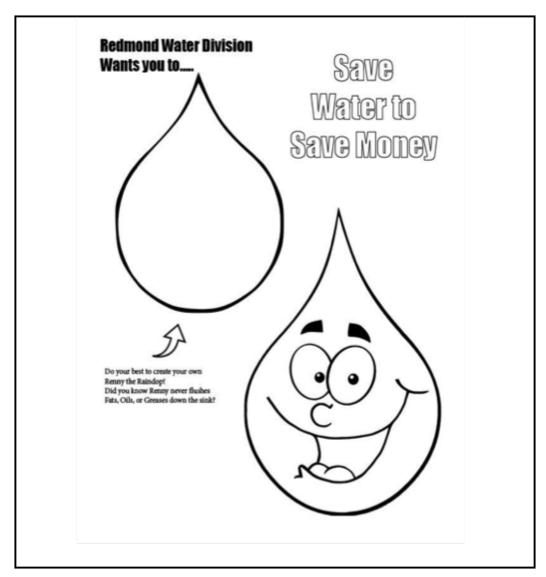
Some additional activities from other students' presentations are as follows:

- Making a multi-layered drink to explain how water aguifers work.
- Using Play-Doh to demonstrate how water pipes become clogged due to FOGs.
- Handing out an infographic that allowed for better understanding of how you can help keep water clean.
- The group that used Mr. Bacon as a cartoon character also designed a comic strip that detailed Mr. Bacon's life. This personified the character and gave humor to the life of Mr. Bacon.

The fall 2015 J453 students greatly benefited from having the opportunity to provide actionable communication solutions to an ongoing, real-life problem being faced by the RWD and through gaining vital professional experience via working with a real client, Chris Miccolis. As a result of this project, Redmond has a variety of tactics targeted at K-12 students that can be implemented whenever it best serves Redmond.

Appendix

Appendix A



Appendix B



Appendix C

