Appendix H: Public Outreach and Education

Section 4: Social Media, Conferences and Awards

| Social media editorial calendar | | |
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| 2011 WateReuse Public Education Program of the Year award | | |
| 2012 WateReuse Project of the Year award | 16 | |

Social Media Editorial Calendar

A sample of the December 2012 editorial calendar used to determine Facebook and Twitter postings. Editorial calendars were produced monthly beginning in October 2011.

Water Purification Demonstration Project Social Media Message Calendar: December 2012

| Dec. | Facebook & Twitter |
|-------|--|
| 1 | X |
| 2 | X |
| 3 | There is no water to waste, just wasted water. Make a conscious effort to conserve water in your home or business. |
| | Some simple tips to save water: http://www.sandiego.gov/water/pdf/conservation/waystosavewater.pdf |
| 4 | The Demonstration Project welcomes representatives from the California Department of Public Health to the AWP Facility. |
| | We have given over 130 presentations to groups around San Diego. If you would like to schedule a speaker to educate your group on the future of San Diego water, email purewatersd@sandiego.gov or call the hotline at (619) 533-6638. |
| 5 | "In time and with water, everything changes" Leonardo da Vinci |
| 6 | Brackish water? Advanced oxidation? Decode these and other water purification terms here: http://www.sandiego.gov/water/waterreuse/pdf/100908wpdglossary.pdf |
| 7 | While the daily recommended amount of water is eight cups per day, not all of this water must be consumed in the liquid form. Nearly every food or drink item provides some water to the body. |
| 8 | X |
| 9 | X |
| 10 | "Water is the basis of life and the blue arteries of the earth! Everything in the non-marine environment depends on freshwater to survive." –Sandra Postel |
| 11 | Water treatment has been around since ancient civilizations. Brush up on a brief history of drinking water treatment at http://www.epa.gov/ogwdw/consumer/pdf/hist.pdf |
| 12 | The Demonstration Project welcomes students from Madison High School to the AWP Facility. |
| 13 | Interested in getting involved with the WPDP? Check out the Public Involvement page of our website to learn how: http://bit.ly/RoG3le |
| 14 | In the world of water, we are all downstream: past, present and future. |
| 15 | X |
| 16 | X |
| 17 | [Provide update about the final report.] |
| 18 | "Water is the lifeblood of our bodies, our economy, our nation and our well-being"-Stephen Johnson, former EPA administrator |
| 19 | Find answers to frequently asked questions about the quality of your water. http://www.sandiego.gov/water/quality/faqs.shtml |
| 20 | "In an age when man has forgotten his origins and is blind even to his most essential needs for survival, water along with other resources has become the victim of his indifference." – Rachel Carson |
| 21 | Wishing you and yours a very happy holiday season and a happy new year! See you in 2013. |
| 22-31 | X |

Facebook

The screenshot of the Demonstration Project's Facebook page was taken in January 2013.



WATER PURIFICATION DEMONSTRATION PROJECT

FACEBOOK PAGE (WWW.FACEBOOK.COM/SANDIEGOWPDP)



Twitter

The screenshot of the Demonstration Project's Twitter page was taken in January 2013.



WATER PURIFICATION DEMONSTRATION PROJECT

TWITTER PAGE (WWW.TWITTER.COM/PUREWATERSD)



YouTube

The screenshot of the Demonstration Project's YouTube page was taken in January 2013. A snapshot of the project's YouTube video analytics is also included.



WATER PURIFICATION DEMONSTRATION PROJECT YOUTUBE PAGE (<u>www.youtube.com/purewatersd</u>) and Analytics





WATER PURIFICATION DEMONSTRATION PROJECT YOUTUBE PAGE (<u>www.youtube.com/purewatersd</u>) and Analytics

| You Tube | Q Upload - |
|---------------------------------------|--|
| DASHBOARD | Overview 上 Download report |
| VIDEO MANAGER | Content Geography Date range |
| CHANNEL SETTINGS | Search for your videos Q Search for locations Q 11/23/11-12/3 🔻 |
| * ANALYTICS | |
| Overview | purewatersd @ |
| Views reports | CHANNEL Videos: 7 - Created: Nov 23, 2011 - Lifetime views: 3,467 |
| Views | Nov 23, 2011 – Dec 31, 2012 |
| Demographics | |
| Playback locations Traffic sources | Performance |
| Audience retention | 120 100 5 |
| Engagement reports | so de la companya so de la companya so de la companya so de la companya de la company |
| Subscribers | 3,121 1,536 21 |
| Likes and dislikes | VIEWS ESTIMATED MINUTES WATCHED SUBSCRIBERS NET CHANGE |
| Favorites | |
| Comments Sharing | Engagement |
| - Annotations (Beta) | |
| | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ |
| INBOX | LIKES DISLIKES COMMENTS SHARES FAVORITES ADDED FAVORITES REMOVED |
| n purewatersd | |
| Send feedback | Top 10 videos Browse all videos |
| | Video Views U Estimated minutes Likes |
| | 1. The Advanced Water Purification Process 1,917 1,152 10 |
| | 2. Tour San Diego's AWP Facility 882 226 5 |
| | 3. Marsi Steirer on California Water with Huell Howser 201 59 0 |
| | 4. The Yuck Factor (Testimonial) 41 26 0 |
| | 5. The Science Behind Water Purification Process (Testi 32 41 0 |
| | 6. The Benefits of Water Purification (Testimonial) 26 27 0 |
| | 7. Support for the Demonstration Project (Testimonial) 22 7 0 |

Conferences: Conference List

A list of conferences at which the Demonstration Project team presented project information

Water Purification Demonstration Project Conference Involvement (March 2010 - December 2012)

| Conference | Location | Date | Abstract Title | Topic | Presenter |
|--|---------------------|-----------------------|---|------------|-----------|
| 2010 WateReuse California Annual Conference | San Diego, CA | March 7-9, 2010 | City of San Diego's Indirect Potable Reuse/Reservoir Augmentation Demonstration Project | General | Marsi |
| AWWA ACE 10 | Chicago, IL | June 20-24, 2010 | Managing Water Resources in a Sustainable Manner | General | Marsi |
| 25th Annual WateReuse Symposium | Washington, D.C. | Sep. 12-15, 2010 | Developing a Model Solution for Sustainability through Water Reuse | Technical | Marsi |
| 2011 Utilities Management Conference | Denver, CO | Feb. 8-11, 2011 | City of San Diego Water Purification Demonstration Project | Technical | Marsi |
| 2011 WateReuse California Annual Conference | Dana Point, CA | March 20-22, 2011 | Evaluating the Feasibility of a New Local Water Supply for San Diego | Technical | Anthony |
| AWWA ACE 11 | Washington, D.C. | June 11-12, 2011 | Changing Public Perception with Education and Information | Outreach | Marsi |
| AWWA ACE 11 | Washington, D.C. | June 11-12, 2011 | Is Advanced Purified Water Feasible? | Technical | Marsi |
| 26th Annual WateReuse Symposium | Phoenix, AZ | Sept. 11-14, 2011 | Development of a Comprehensive T&M Plan | Technical | Jay |
| 26th Annual WateReuse Symposium | Phoenix, AZ | Sept. 11-14, 2011 | Changing Public Perception with Education and Information | Outreach | Marsi |
| ACWA's 2011 Continuing Legal Education for Water | San Diego, CA | Sept. 22-23, 2011 | City of San Diego Water Purification Demonstration Project | Outreach | Marsi |
| WEFTEC 11 | Los Angeles, CA | October 15-19, 2011 | City of San Diego Water Purification Demonstration Project | Technical | Joseph |
| 2011 Potable Reuse Conference | Hollywood, FL | Nov. 13-15, 2011 | City of San Diego Water Purification Demonstration Project | Outreach | Marsi |
| 2011 Potable Reuse Conference | Hollywood, FL | Nov. 13-15, 2011 | "Seeing is Believing" for the Water Purification Process | Outreach | Patsy |
| | | | Performance & Reliability Monitoring of Advanced Water Treatment Unit Processes for | | |
| 2011 Potable Reuse Conference | Hollywood, FL | Nov. 13-15, 2011 | Indirect Potable Reuse—A Stepping Stone for Potable Reuse | Technical | Jay |
| ASCE Region 9 Annual California Infrastructure Symposium | Sacramento, CA | February 28, 2012 | City of San Diego Water Purification Demonstration Project | General | Marsi |
| 2012 WateReuse California Annual Conference | Sacramento, CA | March 25-27, 2012 | City of San Diego Advanced Water Purification Facility Tour Experience | Outreach | Marsi |
| 2012 WateReuse California Annual Conference | Sacramento, CA | March 25-27, 2012 | City of San Diego Update of the Water Purification Demonstration Project | Technical | Anthony |
| Ozwater'12 (Australian Water Association) | Sydney, Australia | May 8-10, 2012 | Overcoming Barriers to the Acceptance of Potable Reuse as an Alternative Water Source | Outreach | Marsi |
| | | | Development of a Three Dimensional Hydrodynamic Model to Assess Indirect Potable | | |
| 16th Annual Water Reuse & Desalination Research Conference | San Diego, CA | June 4-5, 2012 | Reuse/Reservoir Augmentation in San Vicente Reservoir | Technical | Jeff |
| 16th Annual Water Reuse & Desalination Research Conference | San Diego, CA | June 4-5, 2012 | Practice What You Find: Tailoring Outreach Efforts Based on Research Findings | Outreach | Marsi |
| | | | Evaluation of Performance Monitoring Methods for AWP Processes: City of SD AWP | | |
| 16th Annual Water Reuse & Desalination Research Conference | San Diego, CA | June 4-5, 2012 | Demonstration Project | Technical | Bill/Jay |
| AWWA ACE 12 | Dallas, TX | June 10-14, 2012 | City of San Diego Advanced Water Purification Facility Tour Experience | Outreach | Marsi |
| AWWA ACE 12 | Dallas, TX | June 10-14, 2012 | City of San Diego Update of the Water Purification Demonstration Project | Technical | Marsi |
| | | | Comparing Multiple MF/UF and RO Systems for Indirect Potable Reuse in Side-by-Side | | |
| AWWA ACE 12 | Dallas, TX | June 10-14, 2012 | Comparison | Technical | Greg W. |
| Western Coalition of Arid States (WESTCAS) 2012 Annual | | | | | Ű |
| Conference | San Diego, CA | June 18-20, 2012 | San Diego Water Purification Demonstration Project | General | Marsi |
| WateReuse Foundation Webcast - Panel Discussion | Marsi's office | June 26, 2012 at 2PM | WateReuse Association Webcast - Accelerating the Progress of Potable Reuse | Outreach | Marsi |
| CA-NV AWWA Desalination Committee Workshop | Foster City, CA | August 21, 2012 | San Diego Water Purification Demonstration Project | Outreach | Alma |
| CA-NV AWWA Desalination Committee Workshop | Fountain Valley, CA | August 23, 2012 | San Diego Water Purification Demonstration Project | Outreach | Alma |
| 27th Annual Water Reuse Symposium | Hollywood, FL | September 9-12, 2012 | "Seeing is Believing" for the Water Purification Process | Outreach | Marsi |
| | | | Evaluation of Performance & Reliability of Advanced Water Purification Processes: City of San | | |
| 27th Annual Water Reuse Symposium | Hollywood, FL | September 9-12, 2012 | Diego Advanced Water Purification Demonstration Project | Technical | Jay D. |
| California Lake Management Society | San Diego, CA | Oct 4 - 5, 2012 | San Diego's Water Purification Demonstration Project: Changing Public Perception of IPR/RA | Technical | Marsi |
| CA-NV AWWA 2012 Annual Fall Conference | San Diego, CA | Oct. 8 - Oct 11, 2012 | The City of SD's Water Purification Demonstration Project | Outreach | Marsi |
| | 2 2 .0 | | A Comparison of Operating Conditions and Performance of Indirect | 2 44 64011 | Greg |
| CA-NV AWWA 2012 Annual Fall Conference | San Diego, CA | Oct. 8 - Oct 11, 2012 | Potable Reuse Facilities for San Diego's Demonstration Plant | Technical | W./Jen T. |

Conferences: Conference Poster

Poster displayed at various conferences



Water Demonstration **Purification Project**





Water Purification Demonstration Project Tasks

- · Operate and test a 1 MGD demonstration-scale Advanced Water Purification Facility.
- · Conduct a limnology and reservoir detention study of the San Vicente Reservoir.
- · Conduct an energy and economic analysis. · Conduct a public outreach and education program.
- · Define regulatory requirements for a potential full-scale project.

Demonstration Project Concept



San Vicente Reservoir Limnology and Detention Study

- Construction timeline: 2009 2013
- 3D model of San Vicente was developed to evaluate the hydrodynamic & water quality effects of using purified water to augment the reservoir. · Augmentation would improve water quality.





Public Outreach & Education

- Speakers Bureau
- Website/Social Media
- AWP Facility Tours



Advanced Water Purification (AWP) Facility

· Operating in accordance with a Testing & Monitoring Plan. Equipment selected is scalable for future fullscale facility. · Purified water used to supplement recycled

water system.





AWP Facility Process Schematic

Membrane Filtration

- · Microfiltration & ultrafiltration situated side-by-side to test effectiveness prior
- Pressurized hollow fiber membranes.
- · MF nominal pore size of 0.10 microns.
- UF nominal pore size of 0.02 microns.

Reverse Osmosis (RO)

- RO set to test two configurations, 0.5 MGD side-by-side to quantify trade-offs: Greater rejection and lower feed





- RO Train 1 has lower pressure membranes
- RO Train 2 has higher pressure and higher
- Energy recovery devices.

Ultraviolet Light/Advanced Oxidation Process (UV/AOP)

- · RO permeate feeds UV/AOP. · Hydrogen peroxide 30% is injected
- upstream of UV at 3 mg/L. UV system utilizes low pressure/high
- output lamps. Single reactor, 72 lamp configuration



PUBLIC UTILITIES

Water Quality

- than 300 compounds. Compounds tested have regulatory limits for meeting drinking water standards. Tested for compounds under
- consideration for regulation, including chemicals of emerging concern.

Quarterly Results

















pressure





























Awards

Photographs of the WateReuse Association awards won by the Demonstration Project in 2011 and 2012

WateReuse Awards

