Customer and Stakeholder Communications: Social Media & Related Issues

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2017 ADEM Surface Water Meeting, October 25 & 26, 2017, Montgomery, Alabama
The Water Research Foundation

- WRF integrating with WE&RF
- Member-supported, non-profit research collaborative
- ~1,200 subscribers
- Together funded and managed >2,300 research studies valued at >$700 million since 1966
- Mission: ONE WATER
- Official integration January 2018
- Over 200 active projects
Co-Located with AWWA in Denver

Denver International Airport “Blue Mustang”

Advancing the Science of Water
Research Programs

Focus Area
- Broadly relevant, high-priority subscriber issues
- Carefully selected issues
- 3–5 year duration
- Typically includes multiple projects

Emerging Opportunities
- Urgent (time-sensitive) issues
- Short duration

Tailored Collaboration
- Regional or subscriber-specific issues
- Up to $100K match from WRF

Facilitated Research Services
- Fully funded by utilities
36 Projects Funded in 2017

11 Focus Area Projects

15 Emerging Opportunities Projects

10 Tailored Collaboration Projects
WRF Research Focus Areas

- **new! Non-regulated DBPs in Drinking, Recycled, and Desalinated Water**
- **new! Pre-Treatment for Food Waste Co-Digestion Management Practices**
- **new! Lead and Copper in Water**
- **Intelligent Water Networks**
- **Waterborne Pathogens in Distribution and Plumbing Systems**
- **Cyanobacterial Blooms and Cyanotoxins**
- **Integrated Water Resource Management**
- **Water Utility Infrastructure**
- **Water Demand**
- **Energy Efficiency and Integrated Water-Energy Planning**
- **Biofiltration**
“Completed” Focus Areas

<table>
<thead>
<tr>
<th>Contaminants of Emerging Concern and Risk Communication</th>
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<tbody>
<tr>
<td>Water Utility Finances</td>
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<tr>
<td>NDMA and Other Nitrosamines</td>
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<td>Hexavalent Chromium Occurrence and Treatment</td>
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<td>Focus Area</td>
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<tr>
<td>Non-Regulated DBPs</td>
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<td>Source Separated Organic Feedstock Pre-Treatment</td>
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<td>Cyanobacteria</td>
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<td>Emerging Opportunities Projects Funded in 2017</td>
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<tr>
<td><strong>Resilient Infrastructure Workshop and Research Roadmap (4707)</strong></td>
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<td><strong>Modes of Action for Bromate-Induced Health Effects and Bromate Formation in Conventional and Advanced Water Treatment (4708)</strong></td>
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<td><strong>Ground-Truthing a New Model to Estimate Earthquake-Induced Water-Supply Damage &amp; Restoration, with Aftershocks, Lifeline Interaction, Mutual Aid, &amp; other Externalities (4709)</strong></td>
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<td><strong>Guidance on Implementing an Effective Water Loss Control Plan (4695)</strong></td>
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<td><strong>Mapping Climate Exposure and Climate Information Needs to Utility Business Practices (4729)</strong></td>
</tr>
<tr>
<td><strong>State Survey of Climate Change Resiliency Efforts (4730)</strong></td>
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<tr>
<td>Co-funding for: Benefits and Unintended Consequences of Mandatory Water Use Restrictions on the Urban Water Cycle (4736)</td>
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<td>Co-funding for: Quantifying the Contribution of Disinfection Byproducts to the Toxicity of Wastewaters Purified for Potable Reuse: Which Byproduct Classes Matter? (4737)</td>
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<tr>
<td>Co-funding for: Benthic Cyanobacteria Risk (4738)</td>
</tr>
<tr>
<td><strong>Workshop – Planning, Budgeting, and Building Strategic Support for Utility Innovation Programs (4739)</strong></td>
</tr>
<tr>
<td>Co-funding for Innovative Linings for Internal Concrete Sewers/Associated Infrastructure and Critical Water Pipes (4728)</td>
</tr>
<tr>
<td><strong>Sustainability Program Effectiveness Assessment on Surface Water Quality (4746)</strong></td>
</tr>
<tr>
<td><strong>Chemical Management of Hydrilla for Drinking Water Utilities (4747)</strong></td>
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<tr>
<td><strong>Water System Partnerships - A Review of Legal Structures and Incentives (4750)</strong></td>
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<tr>
<td><strong>Water Workforce: Improving Regional Infrastructure and Promoting Economic Opportunity (4751)</strong></td>
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## 2017 Tailored Collaboration Projects

<table>
<thead>
<tr>
<th>Sponsoring Utility</th>
<th>Project Title</th>
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<tbody>
<tr>
<td>City of Columbus</td>
<td>Optimizing Biofiltration (BAF) and Integrating BAF into Existing Treatment (4731)</td>
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<tr>
<td>Tampa Bay Water</td>
<td>Evaluation of Risk Management Frameworks and Tools and their Application for Managing Source Water Risks in the United States (4748)</td>
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<tr>
<td>American Water</td>
<td>Trace Organic Compound Removal Using an Adsorption and Electrochemical Oxidation Technology (4740)</td>
</tr>
<tr>
<td>City of Calgary</td>
<td>Real-life Enterprise Resilience. A Research Informed, Interactive &quot;i-book&quot; for Utility Managers (4734)</td>
</tr>
<tr>
<td>Toronto Water</td>
<td>AMI-Meter Data Analysis (4741)</td>
</tr>
<tr>
<td>Metropolitan Water District of Southern California</td>
<td>Probability Management for Water Finance and Resource Managers (4742)</td>
</tr>
<tr>
<td>City of Ann Arbor</td>
<td>Optimizing Filter Backwashing Practices to Reduce Selection for Opportunistic Pathogens in Drinking Water (4743)</td>
</tr>
<tr>
<td>Tarrant Regional Water District</td>
<td>Application of Finite Element Modeling for Large Diameter Pipe with any Type of Backfill Materials (4735)</td>
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<tr>
<td>Alameda County</td>
<td>Optimizing Biofiltration for Improved Manganese Control under Winter Conditions (4749)</td>
</tr>
<tr>
<td>LADWP</td>
<td>Effect of Major Stress Events on Buried Pipe Service Life (4752)</td>
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</tbody>
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Hot Topic: Cyanotoxins - 2017 Webcast Series -

Webcast Series
**Project #4697**
Development of a Risk Communication Tool Kit for Cyanotoxins Webcast
June 27

Webcast Series
**Project #4647**
Evaluation and Optimization of Cyanotoxin Analytical Methods Webcast
July 13

Webcast Series
**Multi-Project**
Treatment Approaches for Managing Dissolved and Intracellular Cyanotoxins Webcast
August 22

• Archived at: [http://www.waterrf.org/resources/webcasts/Pages/on-demand.aspx](http://www.waterrf.org/resources/webcasts/Pages/on-demand.aspx)
Hot Topic: Lead

- **New Results in 2017!** Evaluation of Lead Service Line Lining and Coating Technologies (4351)
- **New Focus Area in 2017!** Lead and Copper Rule (LCR) Compliance
- **New Project in 2017!** Full Lead Service Line Replacement Guidance (4713)
- Lead and Copper Corrosion Research Review
  [http://www.waterrf.org/resources/StateOfTheScienceReports/LeadCorrosion.pdf](http://www.waterrf.org/resources/StateOfTheScienceReports/LeadCorrosion.pdf)
- April 2016 Webcast on “Lead and Copper Rule” Largest ever WRF Webcast audience:
Communications
A Taken-for-Granted Infrastructure

“When future historians look back at the United States in the twentieth century, if they choose accuracy over graceful phrasing, they will have reason to christen this unusual historical interlude as the Era of Improbable Comfort Made Possible by a Taken-for-Granted but Truly Astonishing Infrastructure.”

Some WRF Communications Research

**Water Utility Primer on EDCs/PPCPs for Public Outreach (4387)**
- Distilled and synthesized current information on EDCs and PPCPs into a primer

**Dialogue on CECs and Public Health (4463)**
- Recommendations to improve communication and collaboration between the water sector, researchers, regulatory agencies and public health groups

**Context and Core Messages (4457)**
- A context animation (publicly available)
- Technical briefs and “thinking about” pieces by social scientists

**Terminology and Improved Communication (4551)**
- Key terminology—meanings, connotations, and relations
- Differences in information use and preferences
Primary Principle in Communication:

Perceptions are valid and must be addressed equally in relation to scientific data.
The Water Industry needs to Talk the Talk!

- A new way of talking internally within the industry itself needs to be embedded
- Water professionals tend to use terms that are provocative and fear-producing. These naturally instill fear in a lay audience
- Need to be able to communicate different degrees of risk for contaminants – sometimes risk is high and sometimes it’s low – the choice of terms is highly context dependent
Prepare for 2 Types of Communications

Proactive – to use in advance of any events
  • Builds trust
  • Inoculates the public
  • Provides context

Reactive – to respond to events
  • Utility staff
  • State primacy agency
  • Public

Prepare Early!
Collaborate...

With public health officials, regulators, utilities, researchers and other stakeholders

• Determine triggers for communicating and responses
• Drinking water advisory?
  • EPA Public Notification and Twitter guidance
CDC Drinking Water Advisory Communication Toolbox

Checklist: Before an Event

Organizing for Drinking Water Advisories

- Conduct an assessment of assets and resources needed to issue a drinking water advisory.
- Consult your organization’s strategic communication plan.
- Plan for media activities.
- Integrate communications as part of your emergency response standard operating procedures (SOPs).

Collaborating with Partners

- Identify partners and critical and wholesale customers.
- Record and regularly update contact information.
- Develop a communication network of public agencies and private entities for collaboration during an advisory.
- Meet and discuss protocols and resources for drinking water advisories with agency partners and community organizations.
- Plan and conduct regular communication among partner agencies and private organizations.

Developing a Message

- Collaborate with your communication network to develop messages for various advisories and specific audiences.
- Translate and format messages for special populations (e.g., non-English speakers, visually impaired).
What do Customers Want to Know?

Consumers want technical details
• Technical detail is NOT equated with technical language
• Water professionals DO equate the two

Consumers seek reassurance
• They want information in context that explains “safe”
• What are you doing about it?
• What can I do?
• Where can I get information?

Is the drinking water safe for my family?
Four Steps to Effective Cyanotoxin Communication

- **Step 1:** Understand the cyanotoxin communication challenge and communication best practices
- **Step 2:** Address Internal Management Questions
- **Step 3:** Communicate Proactively with the Community
- **Step 4:** Select, Modify, and Deliver Effective Message Products
Apply communication best practices: **Layering**

**Layer #1:**

**Water Health Advisory/Alert/Action**

**Layer #2:**

- Proactive
- Details about the Advisory

**Layer #3:**

- FAQ’S
- Dogs & Pets
- Recreation & Water Contact
Apply communication best practices: **Simplify**

Share only the most protective level in a water advisory

“Someone will always find the lowest number and berate you if you aren’t using it, so you might as well use the lowest number and build a reputation as health risk conservative.”

Utility Participant
Cyanotoxin Communications: Take Home Messages

Know your system
- Assess your system vulnerability
- Identify source water treatment capabilities

Be technically prepared
- Source water monitoring
- Early warning program
- Analytical capabilities
- Treatment capabilities

Be ready to communicate
- With the public
- With the press
& Etc. for Cyanotoxins Communications & Project 4697

- Details for each step
- Prepared communications
- Hints and tips for foreseeable eventualities
- Final Report out soon
- June Webcast has an excellent summary!
Social Media & Communications
Social Media for Water Utilities, 4638

Project Goal: identify costs, opportunities, barriers, strategies, and tools for effective engagement in social media:

1. make the *business case* for digital engagement and
2. determine how to fit digital engagement in communication strategy
3. make the business case for digital engagement
Project Background

“the projected growth in social media ... will be the most significant trend affecting information technology during the next 10 years”

- *Forecasting the Future: Progress, Change, and Predictions in the Water Sector* (WRF #4232, 2012)
- Recommends that utilities “embrace new communication channels to proactively control public perception.”

- Importance of social media for water utilities also underlined in *Steering Innovation in Water Utility Finance and Management* (WRF #4506, 2013)
- Describes several strategies and tactics that utilities have used to respond to the explosion of social media
Project Need

• Benefits of social media engagement appear substantial, but are difficult to quantify
• Social media can introduce new challenges, unintended consequences, and costs and is evolving rapidly, making it challenging to keep up
• Subscribing utilities asked for a project that would identify the costs, opportunities, barriers, strategies, and tools for effective engagement in social media so that:
  1. utility leadership and decision-makers can make the *business case* for digital engagement and
  2. communication teams can determine how best to fit digital engagement in their overall communication strategy
Project Questions

• What social media services are the most suitable for water utilities?
• How much staff time does a utility need to commit to social media to get a worthwhile result?
• How much does it cost?
• What policies and procedures should a utility have in place before going into social media?
• What are best practices for posting, tweeting, sharing, etc.?
• How can utilities deal with trolls?
• What tools and resources are available?
• Do the benefits outweigh the risks and costs?
Research Deliverable #1: Customer Survey

Surveyed 400 Facebook users about their relationship with their water utility.

(Available to WRF subscribers only)
Research Deliverable #2: Benchmarking

Reviewed social media practices of 60 water, wastewater, and stormwater utilities from all across the country.

(Available to WRF subscribers only)
Research Deliverable #3: Literature Review

A 65-page literature review with over 90 citations from peer reviewed, grey, and popular literature

(Available to WRF subscribers only)
Research Deliverable # 4: Case Studies

Documented eight case studies to document how utilities are integrating social media into their operations

(Available to WRF subscribers only)
Research Deliverable # 5: Executive Briefing

Synthesized and interpreted findings, and made recommendations for utilities that are just getting started

(Publicly available)
Research Deliverable # 6: “Getting Started” FAQ

An FAQ document, also aimed at utilities considering taking the plunge for the very time

(Subscriptioners only)
Top Takeaway #1:
A handful of utilities are demonstrating the potential of social media for the industry

SF Water, Power, Sewer (SFPUC)

“Drain Drain Go Away” & “A Boy Named Sewer” look like they are in very responsible hands. TY Stacy! #Adoptadrain adoptadrain.sfwater.org

Riverside Public Utilities

Incredible before/after pics of sinkhole from blown fire hydrant at Linden and Chicago. Thanks to #RPU crews who worked through the night!
Top Takeaway #2:
However, only a small minority of utilities are using social media at all
Top Takeaway #3:
Even water utilities that do use social media are only connecting with a fraction of the population they serve.
## Top Takeaway #4:
Most utilities aren’t giving customers what they want on social media

<table>
<thead>
<tr>
<th>Answer</th>
<th>Average Score</th>
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<tbody>
<tr>
<td>Updates on service disruptions and outages</td>
<td>3.1</td>
</tr>
<tr>
<td>Updates on water and sewer line construction and repairs in your neighborhood</td>
<td>2.8</td>
</tr>
<tr>
<td>Water conservation and pollution prevention tips, offers, and incentives</td>
<td>2.6</td>
</tr>
<tr>
<td>Tips for preventing clogged pipes and sewage backups in your home</td>
<td>2.6</td>
</tr>
<tr>
<td>Updates on your water utility’s environmental accomplishments</td>
<td>2.4</td>
</tr>
<tr>
<td>Water utility public events, such as festivals and volunteer activities</td>
<td>2.3</td>
</tr>
<tr>
<td>Utility announcements: awards received, new hires, etc.</td>
<td>2.0</td>
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Top Takeaway #4:
Most utilities aren’t giving customers what they want on social media

- Public Events: 33%
- Utility announcements: awards received, new hires, etc.: 11%
- How the UTILITY protects the environment: 9%
- Construction and repair updates: 13%
- Plumbing information or help for customers: 10%
- Water service problem or update: 14%
- How CUSTOMERS can protect the environment: 8%
- Rates or bill information: 2%
Top Takeaway #5: With a few exceptions, utilities aren’t taking advantage of social media to make the case for rate increases.
Top Takeaway #5:

With a few exceptions, utilities aren’t taking advantage of social media to make the case for rate increases.
Research Deliverable
# 7: Posting Skills Checklist

A simple online tool that helps utilities prepare compelling and “social” content for Facebook and Twitter

(Publicly available)
The tool provides some templates for common topics, or you can write a post or tweet from scratch.
The Posting Skills Checklist

At the end, you get a score!
The Posting Skills Checklist

Top Recommendations

1. Utilities that are not currently using social media should take another look.
2. Utilities should think through their goals and develop some policies and guidelines before they launch their official profiles.
3. Utilities should expect to commit between 10 and 80 hours of staff time per week, and also budget for useful tools and related expenses.
4. Utilities should make a conscious effort to share content that is interesting and “socialize” their information.
5. Utilities should reconsider their objections to paid advertising, especially during crisis situations.
Summary
# Water Research Foundation

**We Fund and Communicate Results of Research**

| ~50% of our Work is Water Quality Oriented, ~50% is on Other Key Utility Concerns | Over 1500 Completed Projects – Website is Very Useful, So am I and Other Staff! | Strong Focus on Communicating Results – Reports, Workshops, Webcasts, Conference Sessions, etc. |

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Social Media Project Top Takeaways

1. A handful of utilities are demonstrating the potential of social media for the industry.
2. However, only a small minority of utilities are using social media at all.
3. Even water utilities that do use social media are only connecting with a fraction of the population they serve.
4. Most utilities aren’t giving customers what they want on social media.
5. With a few exceptions, utilities aren’t taking advantage of social media to make the case for rate increases.
Social Media Key Results, per Frank

- Frequent, brief, conversational, visual preferred
- Up-to-date information expected in extreme events
- Dissonance between customer desires and utility use of social media
  - Actionable insights
- Time estimates developed
- Social Media Monitoring Platforms
  - Electronically monitor evolving conversations
  - Does a given Tweeter have a lot of influence?
Questions?

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