AWWU Briefing

A presentation to
Assembly Enterprise and Utility Oversight Committee
January 18, 2024

Mark A. Corsentino, P.E., General Manager
Presentation Topics

• Time sensitive procurement of specialty environmental legal services
• Proposed RCA tariff changes for Eklutna Water Treatment Plant for safety, security and liability
• Cybersecurity threats, defenses and staffing
Specialty Environmental Regulatory Legal Services

- Time sensitive and urgent as several EPA and ADEC environmental regulatory actions are active
- AWWU has similar specialized legal contracts for Water Rights and RCA Regulatory services and has had past environmental legal service contracts
- Asplund EPA 301(h) permit has an independent special legal contract that was competitively bid in 2021 with only 2 bidders
- Reeves Amodio has the former ADEC Commissioner in their firm whom was ADEC commissioner when Alaska assumed primacy from EPA for NPDES permits
- Girdwood WWTF 18-year administrative extension on ADEC permit with risk for no regulatory solution
  - Nov/Dec 2023 ADEC comments: DEC imagines prolonged discussions with AWWU about technical and regulatory options available for further consideration – as well as those that may not be warranted. At some point a regulatory pathway may not be available for further consideration.
- Girdwood Well COBC for GWUISW determination challenge
- Legal input for CWA change
  - HHC and State Water Quality Standards
  - PFAS hazardous substance and forthcoming new rules (ubiquitous substances in the environment)
- Legal input for SDWA changes
  - PFAS settlements for proposed new regulations; Legal review of all correspondence (CCR’s)
  - Eklutna raw/unfinished water sales
- Landfill leachate and disposal alternatives regulatory pathways
- AWWU requested the Mayor waive Title 7 procurement rules under 7.20.090.A.2 to enter into this contract, time is of the essence, we have a meeting with ADEC meeting this afternoon with a need for specialized environmental regulatory legal representation
Upcoming Revisions to Human Health Water Quality Criteria for Toxics in Alaska: Critical Policy Choices and Cost Implications for APDES Permittees

Mark A. Corsentino, Anchorage Water & Wastewater Utility
Tom Dupuis, Jim Wodrich, Dave Clark, HDR Engineering, Inc.

December 6, 2023
AWU Proposed Tariff Revision to Remove Rule 15.6, Bulk Water Sales for Bottling and Resale

Unanimously approved by AWWU Advisory Board
Drivers for Proposed Revisions

• AWWU Mission
  • Limit to prioritize providing safe and reliable finished and disinfected drinking water

• Safety
  • Unknown individuals on site
  • Reduce unnecessary access and interruptions to treatment process
  • Intake tunnel, raw water main, Eklutna transmission main

• Security
  • Truck drivers for bulk water customers change often
  • Need proper advance vetting

• Compliance
  • ADEC and EPA Safe Drinking Water Act Regulations
  • Bulk water customers use own chosen means of disinfection

• Operational Needs
  • Limited to number of operators to provide access/service to load tankers
  • Pumping equipment used for loading the tankers is critical part of EWTF Filter Backwash Process
AWU Tariff No. 3 Proposed Revision Support

• Proposed Revision
  • Remove Rule 15.6 to discontinue the bulk “unfinished” water sales for bottling and resale
  • Revise Rule 15.5.B to allow for use of Fire Hydrants for bulk water sales

• Safety and security risks
• Hardship on employees and treatment process
• Risk of discrimination claims for requests to obtain raw water
• Eliminate potential for liability claims from bottled water products (not disinfected)
• Peers of similar larger public water utilities provide fully treated and disinfected water from distribution system not treatment plants
• Alternative service offered under Rule 15.5.B, Conditions of Temporary Construction Service from Fire Hydrants (Hydrant Meters)
• 7 customers, 1 consistent use, 3 intermittent use with last used in 2015 and 2022 (last 10 years)
• Communication with customers prior to filing proposed tariff revision
Timeline and Public Comment

• RCA has 45 days to make a decision
  • 30 days are for public comment
    • Customers will be notified
    • Commission Staff questions

• 3 choices for decision
  • Approve as filed
  • Reject/Deny
  • Suspend into a docket for further investigation
Cybersecurity

States and Congress wrestle with cybersecurity after Iran attacks municipal water utilities

By Marc Levy, Associated Press
Updated: January 2, 2024
Published: January 2, 2024

HARRISBURG, Pa. — The tiny Aliquippa water authority in western Pennsylvania was perhaps the least-suspecting victim of an international cyberattack.

It had never had outside help in protecting its systems from a cyberattack, either at its existing plant that dates to the 1930s or the new $18.5 million one it is building.

Then it — along with several other water utilities — was struck by what federal authorities say are Iranian-backed hackers targeting a piece of equipment specifically because it was Israeli-made.
AWWU Follows Industry Standards

• AWWU adheres to the National Institute of Standards and Technology Cybersecurity Framework (NIST CSF)

• AWWU performs periodic assessments against AWWA’s Guidance and Assessment Tool, a sector-specific approach to using the NIST CSF.

• These assessments are used to comply with the cybersecurity requirements of America's Water Infrastructure Act (2018 AWIA) Risk and Resiliency Assessments, among other regulatory requirements.
AWWU Partners with Industry Cybersecurity Agencies

- Water-ISAC
  - Water Information Sharing and Analysis Center
- MS-ISAC
  - Multi-State Information Sharing and Analysis Center
- CISA
  - Cybersecurity & Infrastructure Security Agency

AWWU monitors bulletins and alerts from partner agencies, implementing recommendations and mitigation measures as necessary.
AWWU Implements Industry Best Practices

• AWWU implements a Defense-In-Depth, layered approach
  • Perimeter Security – Next Generation Firewall
  • Endpoint Security – Application Whitelisting, Patch Management, Antivirus.
  • Physical Security – Physical access is limited to authorized staff.
  • Data Encryption – Data is encrypted in transit and at rest.
  • Backup & Recovery – Backups occur regularly, are tested, and protected.

• https://www.cisecurity.org/insights/spotlight/cybersecurity-spotlight-defense-in-depth-did
Enterprise Firewall

• Inbound and outbound traffic is blocked by country of origin.
• IP addresses associated with nefarious activity are blocked automatically through dynamically updated lists.
• There is no internet access to or from the SCADA network.
• Personnel receive security and threat alerts when suspicious network activity is detected.
SCADA System

• Standardized SCADA Hardware and Software
  • AWWU has standards dictating allowable vendors and equipment used in the SCADA network.
  • AWWU uses a well-established vendor for hardware and software, recognized as an industry leader.
  • SCADA software and hardware delivered by contractors is reviewed by staff for adherence to AWWU programming and security standards.
  • SCADA software system updates are applied regularly.
  • SCADA staffing issues (0 SCADA programmers) are warranting proposed organizational changes to be in alignment with AWWU SCADA Master Plan (Tetra Tech) recommendations and Gartner with respect to convergence of OT and IT skill sets; Labor changes will be required and potentially a code modification request; 3.70.060.C.11.b...add, “except for the ICS electrical shop”

2.2.1 Recommendation

Develop an OT group by consolidating SCADA/IT functions. This will enable AWWU to appropriately address future issues related to changes in technology.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Recommendation</th>
<th>Eng ($k)</th>
<th>CAPEX ($k)</th>
<th>OPEX ($k/yrs)</th>
<th>Duration months</th>
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<td>Develop an OT group (consolidating SCADA and IT) to appropriately address future issues related to changes in technology.</td>
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<td>0</td>
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Table 2-2. Recommendation—SCADA Organizational Support Structure

Title: ICS SCADA PROGRAMMER - Range 23 / PLU (2 Vacancies)

- Close Date: 12/29/2022
- Department: Anchorage Water & Wastewater Utility
- Job Type: Regular / Full Time
- Application: Default
- Category: Environmental Services, Utilities
- Location: 325 E 94th Court Anchorage, AK 99519-2911

- Salary: $40,652 - $43,666 Hourly
- $3,242.80 - $3,412.80 Biweekly
- $70,480.00 - $73,964.00 Monthly
Questions?