
INFORMATIONAL WEBINAR

Getting to Know WaterISAC

March 12, 2025



AGENDA

- WaterISAC Overview
- Policy Updates
- Cyber Threat Briefing
- Physical Threat Briefing
- Member Portal Information

DON'T FORGET!

We are recording and
the Q&A box is open
at all times!

WHO WE ARE

The [Water Information Sharing and Analysis Center](#) (WaterISAC) is the only all-hazards security information source for the water and wastewater sector. We now serve over 600 member companies and utilities with 3,900+ active water sector personnel. Our utility members provide water and wastewater services to Americans across the nation.

- Formed over 20 years ago by the sector's leading national associations at the urging of the White House, FBI, and EPA.
- Maintain two-way communication with DHS, FBI, EPA, fusion centers, and other federal, state, and local agencies in order to help protect and share information.
- Work to advance the security of the sector through critical and direct participation of industry meetings and working groups.



HOW IT WORKS



ALL THINGS WATERISAC - PRODUCTS

ALERTS



Stay in the know! We are in constant communication with CISA, DHS, EPA, FBI, and other government agencies to ensure members receive timely and actionable alerts.

ANALYSIS



Provide quarterly and annual reports analyzing cyber and physical incidents around the nation.

NEWSLETTERS



Weekly newsletters, Security & Resilience Updates (SRU) curated by our analysts to provide focused content and best practices.

RESOURCES



Access to over 14,000 security resources for the water and wastewater sector.

WaterISAC's Traffic Light Protocol (TLP) Policy Change

- In the coming weeks WaterISAC will be fully adopting the Traffic Light Protocol (TLP) information sharing guidelines for all its written products and webinars.
- The TLP was created in order to facilitate greater sharing of information. TLP is a set of designations used to ensure that sensitive information is shared with the appropriate audience. It employs four colors to indicate expected sharing boundaries to be applied by the recipient(s).
- TLP only has four colors; any designations not listed in this standard are not considered valid by FIRST. ([Read more at CISA](#))



ALL THINGS WATERISAC - EVENTS

- Monthly Events
 - Water Sector Cyber Resilience Briefing
- Quarterly Events
 - Water Sector Physical Threat Briefing
 - Water Sector Natural Disaster Threat Briefing
 - WaterISAC Informational Webinar
- H2OSecCon- happening May 20th (virtual event)
- H2OEx- in person 1 day of learning and table top exercise
 - Daytona, FL - July 28
 - Los Angeles, CA - Sept 11
 - Arlington, TX - Nov 6

POLICY UPDATES

- Water Risk and Resilience Organization legislation
- Water Preparedness and Resilience legislation
- Regulatory Freeze - Cyber Incident Reporting rule

POLICY UPDATES

Water Risk and Resilience Organization (WRRO) Establishment Act

- Introduced in House of Representatives by Rep. Rick Crawford (R-Ark.) last year
- Would establish a WRRO comprised of water sector experts to develop tiered, risk-based cyber requirements for water and wastewater systems serving more than 3,300 people
- Could serve as “off the shelf” legislation if Congress decides to tackle water cybersecurity
- Rep. Crawford and Sen. Pete Ricketts (R-Neb.) plan to reintroduce the bill this spring

POLICY UPDATES

Water System Threat Preparedness and Resilience Act

- Rep. Jan Schakowsky (D-Ill.) and Sen. Ed Markey (D-Mass.) first introduced in 2023
- Would direct EPA to do more to promote WaterISAC to water and wastewater systems, and authorize funds to offset membership dues
- AMWA is positioning the bill to be part of any larger water cybersecurity package Congress may consider in the future
- Rep. Schakowsky and Sen. Markey plan to reintroduce bill by the end of March

POLICY UPDATES

Regulatory Freeze – Cyber Incident Reporting for Critical Infrastructure Act

- CISA proposed Cyber Incident Reporting for Critical Infrastructure Act (CIRCI) rule in April 2024; final rule must be issued by October 2025
- Covered critical infrastructure entities would have to report significant cyber incidents to CISA within 72 hours, or cyber ransom payments within 24 hours, but Congress barred enforcement against public entities
- AMWA comments requested clarity, and encouraged voluntary incident reporting through mechanisms like WaterISAC
- Proposed rule under review as part of Trump “regulatory freeze”

Cyber Threats and Vulnerabilities

We track threats, risks, and vulnerabilities so you don't have to.

Examples of current/ongoing cyber activity WaterISAC tracks:

- State-Sponsored Cyber Activity
- Phishing Campaigns
- CISA's Known Exploited Vulnerabilities (KEV)
- CISA's Industrial Control Systems Advisories (ICSAs)

State-sponsored Cyber Activity

“Why should I care about threats from state-sponsored actors?”

- They can and desire to disrupt critical infrastructure and/or sow doubt/distrust about safety/security of critical services.
- Less about the “who” (Russia, China, Iran) and more about the “what” – *behaviors/capabilities* – to defend against.

State-Sponsored Cyber Threats (The Main Ones)

- People's Republic of China-Affiliated Threat Actors
- Pro-Russia Hacktivists
- Iranian Government Islamic Revolutionary Guard Corps (IRGC)-affiliated CyberAv3ngers
- North Korean (DPRK)-Affiliated Threat Actors

Volt Typhoon

- Confirmed actions against water and wastewater sector assets
- Living-off-the-Land (LOTL) techniques to hide in plain sight
- Pre-positioning on IT networks to enable disruption of OT



Disrupted **Volt Typhoon** Botnet and Testimony on Preeminent Cyber Threat Posed by the PRC

FEB 01, 2024 IN CYBERSECURITY, OT-ICS SECURITY

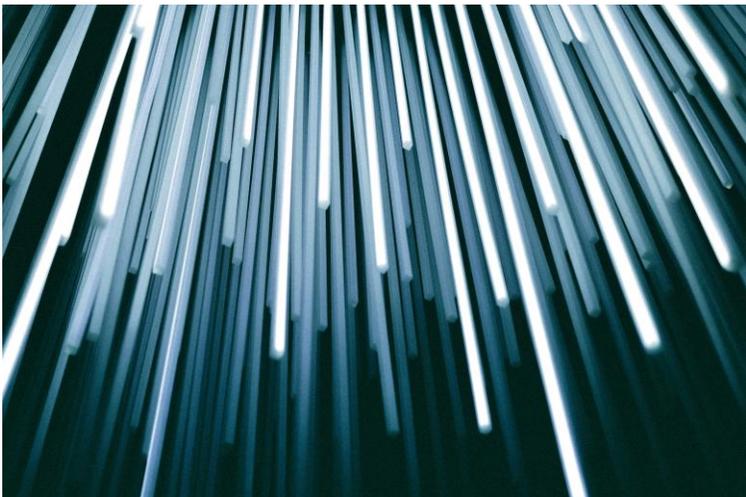


(TLP:CLEAR) WaterISAC Advisory – PRC-sponsored **Volt Typhoon** Activity and Supplemental Living Off the Land Guidance

FEB 08, 2024 IN CYBERSECURITY, OT-ICS SECURITY, FEDERAL & STATE RESOURCES

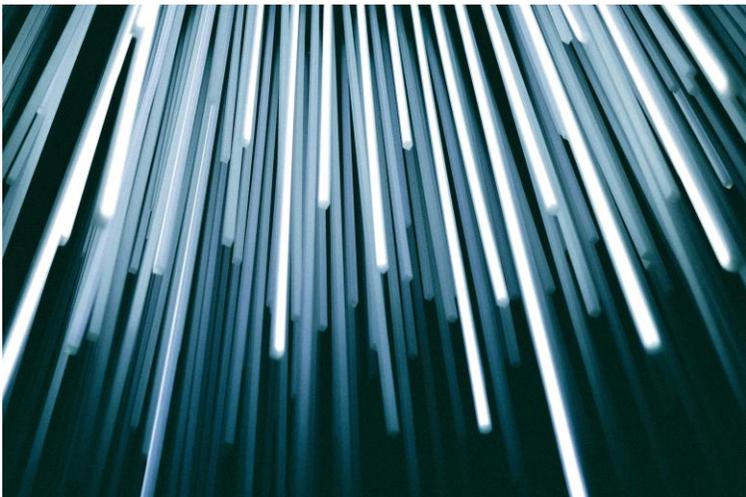
Salt Typhoon

- Compromised at least 9 telecommunication companies including major ISPs AT&T, Verizon, and Lumen Technologies
- Appear to have access deep into the routing functions of major ISPs,
- Have the potential to impact OT



Silk Typhoon

- Microsoft Threat Intelligence shared details of Silk Typhoon targeting remote management tools and cloud services in supply chain attacks giving them access to downstream customers.
- <https://www.waterisac.org/portal/tlpclear-silk-typhoon-another-chinese-affiliated-threat-actor-targets-it-supply-chains>



Russian Hacktivist Claims to Have Gained Access to a Water Utility's OT Systems, Underscoring Importance of Cyber Hygiene

- [\(TLP:AMBER\) Russian Hacktivist Claims to Have Gained Access to a Water Utility's OT Systems, Underscoring Importance of Cyber Hygiene](#)

Reported Cyber Attacks On U.S. Critical Infrastructure (Source: ODNI)

REPORTED CYBER ATTACKS ON US ICS, 23 NOVEMBER 2023 THROUGH 22 APRIL 2024

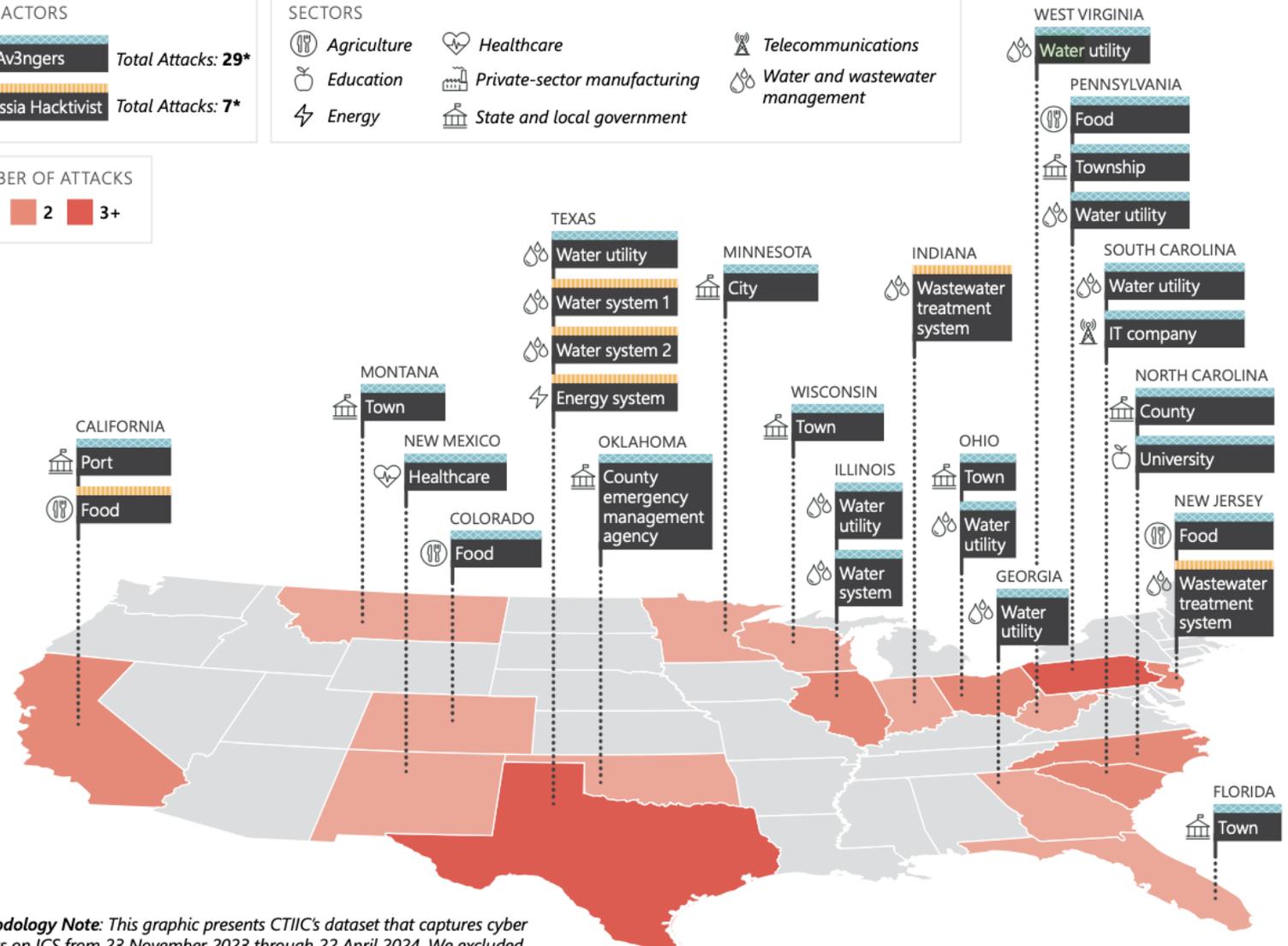
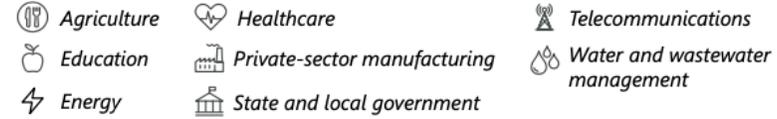
CYBER ACTORS



NUMBER OF ATTACKS



SECTORS



Methodology Note: This graphic presents CTIIC's dataset that captures cyber attacks on ICS from 23 November 2023 through 22 April 2024. We excluded ransomware attacks on critical infrastructure entities.

*Including seven attacks at additional US locations.

WaterISAC Advisories

Trimble Cityworks Server AMS Advisory

- February 3, 2025 | <https://www.cisa.gov/news-events/alerts/2025/02/07/cisa-adds-one-known-exploited-vulnerability-catalog>

Maine Phishing Impersonation Examples

January 2024

June 2024

Screenshot of Attempted Phishing Email:

Division of Environmental and Community Health External



Division of Environmental and Community Health
LICENSED OPERATORS INFORMATION UPDATE.

Dear [REDACTED]

Note: This secure verification link below will expire after 24 hours, and if we did not receive your verification / update before the link expire, we will have to revoke your license.

Expiration Date	[REDACTED]
License ID	[REDACTED]
Last Name	[REDACTED]
First Name	[REDACTED]
Address	[REDACTED]
City	[REDACTED]
State	[REDACTED]
Zip	[REDACTED]
Email	[REDACTED]
Phone	[REDACTED]
Distribution	[REDACTED]
Treatment	[REDACTED]
County	[REDACTED]

[CLICK HERE TO VERIFY OR UPDATE YOUR INFORMATION.](#)

NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying, or distribution of or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer.

DWP Comment: Cyber attacker used the Maine.gov logo and Division title in the email subject line and header to give the phishing email the appearance of legitimacy.

DWP Comment: Cyber attacker prompted recipient to click links in the phishing email. Hover your mouse over the hyperlink (**do not click!**) to show you the real web address the link will send you to.



2024 Maine Gov Information Verification.

Dear [REDACTED]

Kindly confirm if the below information about you is correct and up to date. This is a final awareness for information verification.

This secure verification link below will expire after 24 hours. We will have to revoke your license if we do not receive your verification/update before the link expires.

Expiration Date	[REDACTED]
License #	[REDACTED]
FIRST_NAME_TEXT	[REDACTED]
LAST_NAME	[REDACTED]
Address	[REDACTED]
City	[REDACTED]
State	[REDACTED]
Zip	[REDACTED]
E-mail	[REDACTED]
Phone	[REDACTED]
Driller Grade	[REDACTED]
Installer Grade	[REDACTED]

[CLICK HERE TO CONFIRM OR VERIFY YOUR INFORMATION.](#)

This provided is informational, confidential, and privileged, and is not to provide legal advice. Unless you are the intended addressee (or authorized to receive for the intended) you may not use, copy, disclose, or forward the message or any information contained in the message without the sender's permission. If you have received this message in error, please advise the sender by reply email and delete the message.

 2024

Cyber Vulnerabilities

Patching is hard, exploiting unpatched devices...not so much!

Vulnerability information sources WaterISAC tracks:

- CISA's Known Exploited Vulnerabilities (KEV) Catalog
- CISA's Industrial Control Systems Advisories (ICSAs)

For both OT/IT: update or patch as you are able, compensate with other controls when you can't patch, isolate when neither is possible.

12 Cybersecurity Fundamentals for Water and Wastewater Utilities

Download the guide: www.waterisac.org/fundamentals

2024



12 Cybersecurity Fundamentals for Water and Wastewater Utilities

Recommended Practices to Reduce Exploitable Weaknesses and Consequences of Attacks

1. Incident Response Planning
2. Minimize Control System Exposure
3. Cybersecurity Culture
4. Threat Detection & Monitoring
5. Understanding Assets
6. Enforce Access Controls
7. *Physical Access Protection*
8. *Cyber-Physical Safety Systems*
9. *Vulnerability Management*
10. Governance
11. Third Party Risks
12. Information Sharing



Cyber Resilience Resources

WaterISAC

- [Cybersecurity Fundamentals for Water and Wastewater Utilities](#)
- [WaterISAC Monthly Cyber Resilience Briefings](#)
- [WaterISAC Champions](#)

Federal (CISA, EPA, FBI, etc.)

- [Top Cyber Actions for Securing Water Systems](#)
- [Water and Wastewater Sector - Incident Response Guide](#)
- [CISA's Free Cyber Vulnerability Scanning for Water Utilities](#)
- Visit CISA's page on [Water and Wastewater Cybersecurity](#)
- [CISA's Cross-Sector Cybersecurity Performance Goals \(CPGs\)](#)
- [Security Advisors](#) (including Cybersecurity Advisors – CSA's)

Other

- [Cyber Readiness Institute \(CRI\) Cyber Readiness Program - Resiliency for Water Utilities Program](#)
- [Five ICS Cybersecurity Critical Controls](#)
- [Protecting Critical Water Systems with the Five ICS Cybersecurity Critical Controls](#)
- [Top 20 Secure PLC Coding Practices](#)
- [Dragos OT-CERT](#)

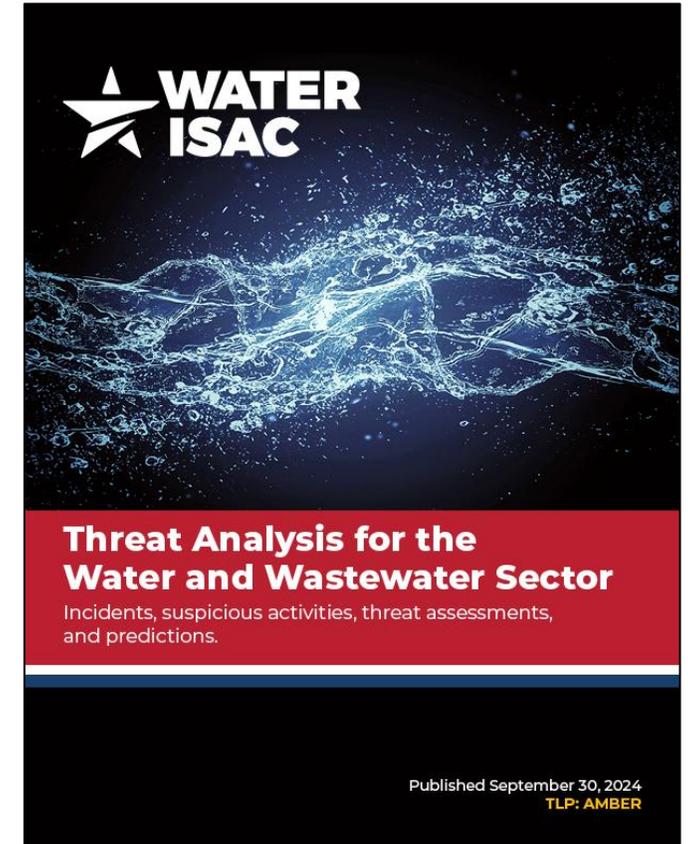
American Water Works Association (AWWA) Cybersecurity & Guidance

- [Water Sector Cybersecurity Risk Management Guidance](#)
- [Assessment Tool](#)
- [Small Systems Guidance](#)



Water Sector Physical Security Threat Landscape

- The physical security threat landscape facing the water and wastewater sector today is increasingly complex, dynamic, and volatile. Several domestic and international factors are driving a rise in threats to critical infrastructure
- Terrorists and violent extremists represent a particularly dangerous threat given their perception of critical infrastructure as a viable and attractive target.
- Common criminals continue to represent an enduring threat to the Water and Wastewater Sector, committing most of the incidents.



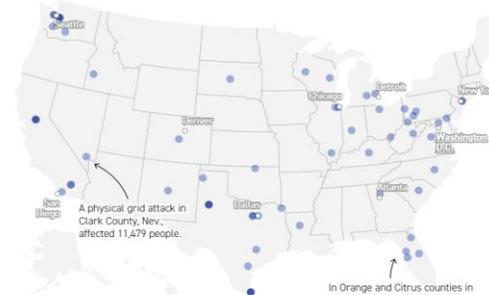
Other Critical Infrastructure Physical Security Threat Landscape

- The energy sector very likely remains the most targeted sector, with threats, plots, and attacks against electric infrastructure having significantly increased since at least 2019
- The communications sector also faces increasing physical security incidents. Criminals and other threat actors have targeted sector assets to steal valuable components and, in some cases, to disable communications for other malicious purposes
- The transportation sector faces a myriad of physical threats stemming from multiple types of threat actors



Electric grid under assault

60 physical attacks or threats reported from January through March (most recent data available). Darker circles indicate multiple incidents.



Note: Some locations are approximate based on available data.
Source: DOE
Catherine Morehouse/POLITICO

Physical Threat Actors

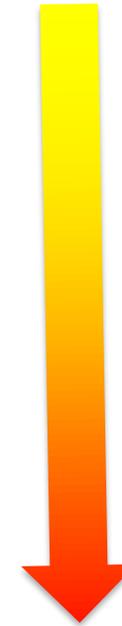
- Common criminals
 - Theft
 - Minor sabotage/tampering
- Insider Threat/Workplace violence
 - Threat
 - Assault
- Terrorists/Extremists
 - Assault
 - Sabotage/tampering
 - Contamination
- Hostile Nation States
 - Sabotage/tampering
 - Contamination

High
Probability

Low
Consequence

Low
Probability

High
Consequence



Notable Terrorist/Extremist Plots and Incidents Involving the Sector

- November 2023 | San Carlos, CA | An anarchist violent extremist who was inspired by the Middle East conflict and against U.S. support for Israel, sabotaged water distribution infrastructure.
- November 2021 | Greenbelt, MD | Two members of the neo-Nazi group "The Base" were sentenced to nine years in prison for planning to poison water supplies and engage in other terrorist activities.
- June 2021 | Unknown | Domestic violent extremists shot at a purported water treatment plant in a video.
- June 2018 | Cudahy, WI | An Islamic State supporter used a pro-Islamic State social media account to encourage a suspected Islamic State follower to poison water reservoirs with ricin.
- February 2014 | Cartersville, GA | Plot by militia members to trigger violent conflict against the government by attacking water utilities.



Insider Threats and Hostile Nation States

- Insider threats remain persisting threats to the sector and could potentially become a growing concern for critical infrastructure organizations going forward.
- Hostile nation states pose an increasing physical security threat to critical infrastructure operations due to the changing geopolitical landscape.



Top Actions to Enhance Your Physical Security

1. Join an information sharing community
2. Conduct a facility risk assessment
3. Document emergency response plans, policies, and procedures
4. Conduct awareness training of the threats and risk facing the sector
5. Exercise emergency response plans and other security contingencies
6. Network with neighboring utilities and local law enforcement

MEMBER PORTAL

- [Detailed FAQs](#)
- [Resource Center](#)
- [Webcast Archive](#)
- [Upcoming Events](#)

UPCOMING EVENTS

- Water Sector Cyber Resilience Briefing
 - Wednesday, March 26 at 2 PM ET
- Water Sector Physical Security Threat Briefing
 - Wednesday, April 9 at 2 PM ET

THANK YOU!

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