



WaterISAC



NAWC

National Association  
of Water Companies

# Black Sky Hazards and Water Sector Resilience

January 23, 2018

# About WaterISAC

- What is an ISAC?
- Nonprofit, est. 2002
- ***Mission:*** To help water sector utilities reduce risks from cybersecurity, physical security and natural disasters
- **Members:** Utilities and state and federal government in U.S., Canada, Australia

# Water/Wastewater Sector Partnership



American Water Works  
Association



ASSOCIATION OF  
METROPOLITAN  
WATER AGENCIES



NACWA  
A Clear Commitment to America's Waters



WaterISAC



NRWA

NATIONAL  
RURAL WATER  
ASSOCIATION

*America's Largest Utility Membership*



THE  
Water  
Research  
FOUNDATION



Water Environment  
Federation®  
the water quality people®

# Services for Pro Members

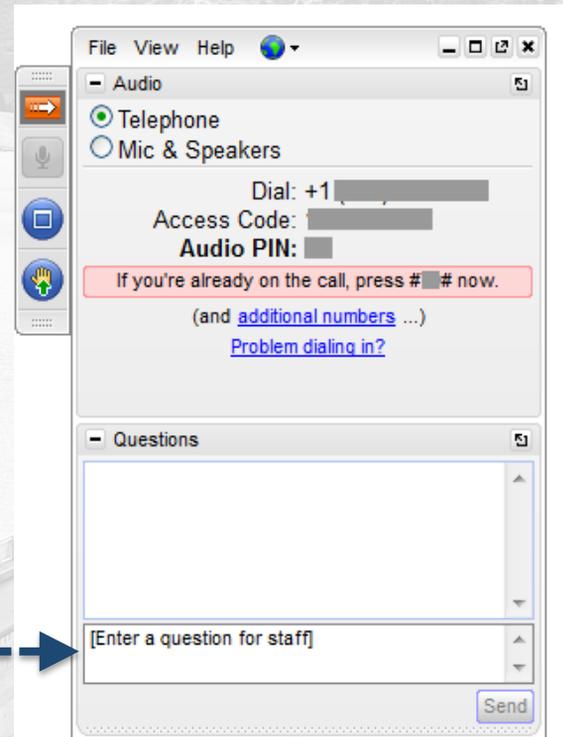
- Threat advisories and analysis
- Best practices and tools
- Searchable chem/bio databases
- Access to SMEs
- 24/7
- Shared via portal, e-mail, webinars
- 30-day Free Trial Pro Membership available.

# CEU Information

For Illinois attendees:

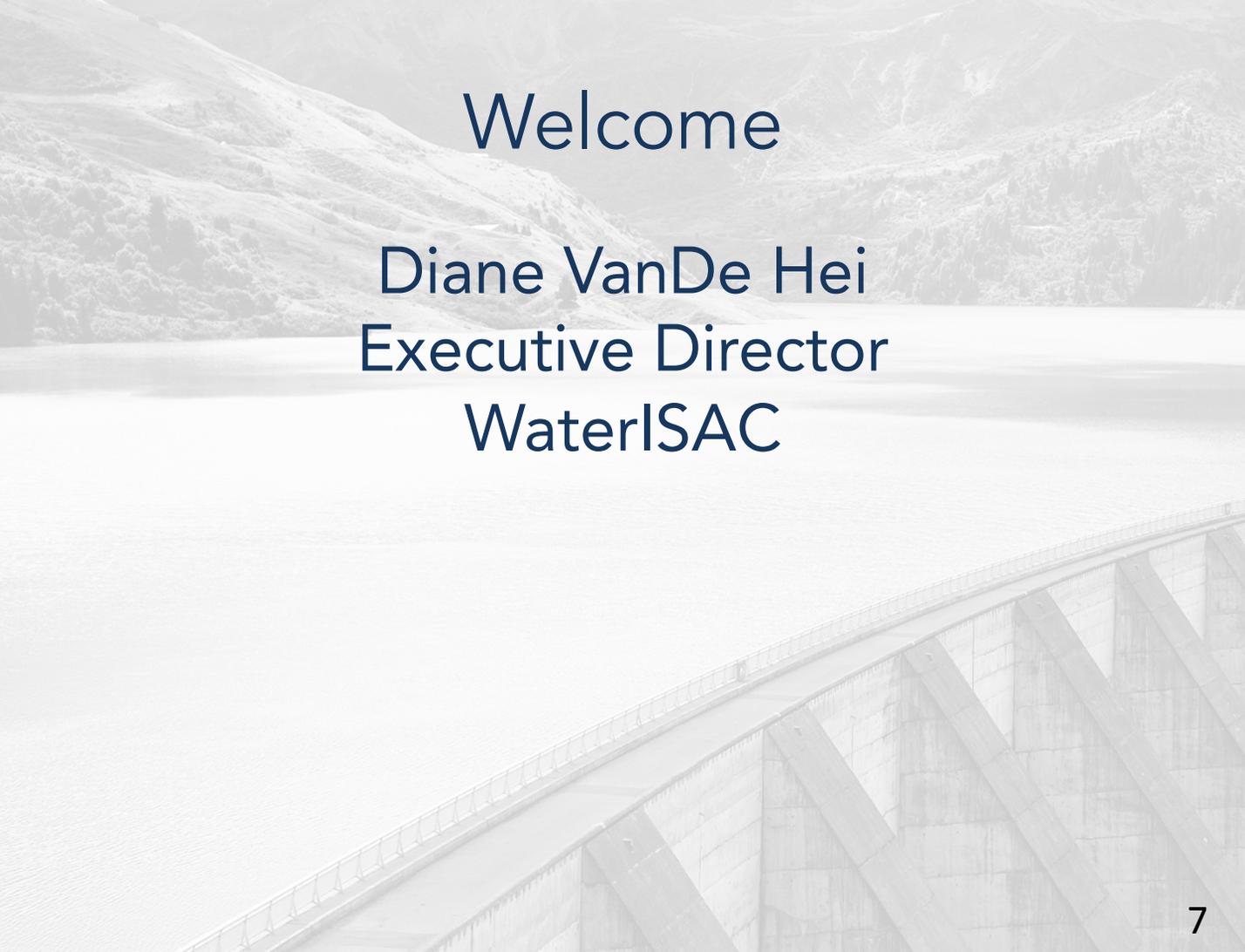
- Course Name: "Black Sky Hazards and Water Sector Resilience Webi"
- Course ID: 12528
- Credit Hours: 1.00

# How to Ask a Question



Type and send





Welcome

Diane VanDe Hei  
Executive Director  
WaterISAC

# Opening Remarks



Don Schumacher

- Superintendent of Operations  
Connecticut Water
- Chair, NAWC Safety and  
Security Committee

# Agenda

**Dr. Paul Stockton, Sonecon LLC**

- Black Sky Hazards and Water Sector Resilience

**Nicholas Santillo, American Water**

- Water Sector Activities

**Lauren Wisniewski, U.S. EPA**

- Power Resilience and Black Sky Planning at Water Utilities

# Black Sky Hazards and Water Sector Resilience



## Dr. Paul Stockton

- Managing Partner, Sonecon LLC
- Former Assistant Secretary of Defense for Homeland Defense
- Author, *E-Pro Handbook Volume II: Water*



# Water Sector Activities



Nicholas Santillo, CPP, PSP, PCI

- VP Internal Audit & Chief Security Officer American Water
- Member, Water Sector Coordinating Council (WSCC)
- Board Member, WaterISAC

# Power Resilience and Black Sky Planning at Water Utilities



Lauren Wisniewski, MPH

- Environmental Engineer  
Water Security Division  
U.S. Environmental  
Protection Agency

# **Power Resilience and Black Sky Planning at Water Utilities**

**Lauren Wisniewski  
U.S. Environmental Protection Agency**

**January 23, 2018**

## Power Outages

### Status of Puerto Rico Aqueduct and Sewer Authority (PRASA) Water Plants as of January 18, 2018

	Total	Out of Service	Primary Power	Alternative Power
Drinking Water Treatment Plants	114	5	57	52
Wastewater Treatment Plants	51	1	36	14



# Power Resilience Guide for Drinking Water and Wastewater Utilities

- **Purpose**
  - Provide strategies to increase resilience to power loss
  - Promote coordination between water and electric utilities



<https://www.epa.gov/communitywaterresilience>

# Power Resilience Guide for Drinking Water and Wastewater Utilities

1  
 Communication

Step 1  
 Contacts

Step 2  
 Key Information

Step 3  
 Prioritization List

Step 4  
 Training & Exercises

Step 5  
 Public Outreach

## Step 3 – Get on the Priority Power Restoration List

- Ask your electric utility who manages the power restoration prioritization list.
- Ask the agency or individual managing the list about your utility's prioritization status.
- Inform the agency or individual managing the list of your "storm-ready" capabilities and be sure that they understand the consequences to the community of drinking water and wastewater service disruptions.
- Inform the agency or individual responsible for the list of the critical assets at your utility that rely on grid power.

**Case Study:**

*Dominion Virginia Power has worked closely with local Emergency Operation Centers (EOCs) to identify the 10-20 most critical services in each of the EOC's jurisdictions. Once identified, these critical facilities are further assigned Special Condition Categories, and water and sewage treatment facilities are considered "Critical Infrastructure". These "Special Conditions" accounts are flagged so Dominion knows instantly when a water or wastewater treatment facility loses power. An intranet application allows Dominion Power to remain focused on these locations to ensure critical infrastructure accounts receive the highest restoration priority.*

*In addition, during large-scale power outages, Dominion Power establishes Electric Regional Operations Centers to better manage their response. Water utilities have a direct line to these centers and to representatives of Dominion Power.*

Communication 
Power Assessments 
Generators 
Fuel 
Energy Efficiency 
On-site Power 
Funding 
 [Previous](#) [Next](#)

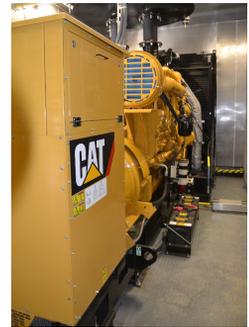
# Increasing Power Resiliency

- **Communication**
  - Get utility on prioritization list for power restoration
- **Power Assessments**
- **Generators**
  - Buy, rent, or borrow?
  - Placement
  - Maintenance
- **Fuel**



## Generator Tips and Lessons Learned

- Exercise generator regularly
- Proactively go off grid before storm
- Have generator needs ready to share with EOC
- Keep small generators on trailers
- Keep basic supplies and spare parts on hand
- Have back-up for your back-up power



## “Power to Keep Water Moving” Video

- Highlights the importance of power resiliency at water utilities
- Shows how one water utility increases its resilience by paralleling generators at critical sites



<https://www.epa.gov/communitywaterresilience>

## 2018 Plans and Events

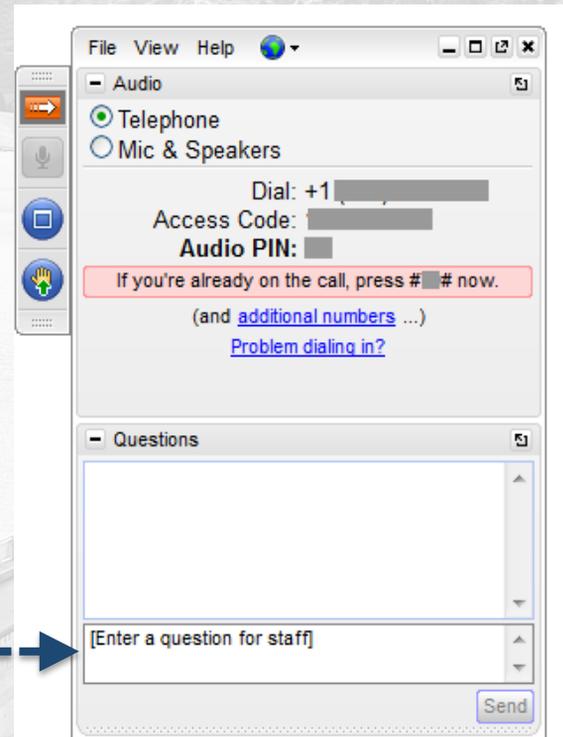
- **Four part webinar series – March to May 2018**
  - Black Sky Planning at Water Utilities
  - On-site Power Generation and Microgrids
  - Air Regulations for Generators
  - Lessons Learned and Key Findings from Exercises
  
- **Update Power Resilience Guide (August 2018)**
  - Air Quality Regulations
  - Power vulnerability assessment
  - Fuel supply planning
  - On-site power generation
  - Black sky planning



## 2018 Plans and Events (Continued)

- **National Capital Region (NCR) Water Sector Black Sky Table Top Exercise (April 2018)**
  - NCR water utilities, electric utilities, local, state and federal agencies, and critical water customers
- **Hazard Mitigation and Power Outage Workshops for Water and Wastewater Utilities in Puerto Rico (Date TBD)**
- **Water Sector Power and Black Sky Resilience Summit (September 2018)**
  - 2 day event in DC area
  - Water utilities, electric utilities, and local, state and federal agencies

# Questions



Type and send



# Resources

Visit [www.waterisac.org/blacksky](http://www.waterisac.org/blacksky) for:

- Today's slides and recording (by Wed. p.m.)
- *E-Pro Handbook II, Volume II: Water* (EIS Council)
- *Roadmap to a Secure and Resilient Water and Wastewater Sector* (Water Sector Coordinating Council (WSCC))
- *Power Resilience Guide* (US EPA)

# Contacts/More Information

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