The LIFT Intelligent Water Systems Challenge: Judging Criteria
An Opportunity for Vendors, Civic Hackers, and Students

Today's water industry operates complex treatment, collection, and distribution systems to protect public and ecological health. These systems are increasingly instrumented to monitor key process indicators and other parameters to facilitate operations. The Water Research Foundation (WRF) and Water Environment Federation (WEF) LIFT program – in collaboration with the American Water Works Association, BlueTech Research, Cleveland Water Alliance, Smart Water Networks Forum (SWAN), The International Society of Automation Water and Wastewater Division, The Water Council, and Water Technology Acceleration Project (WaterTAP) – is therefore holding the first-ever Intelligent Water Systems Challenge to **demonstrate the value to utilities of these "intelligent water systems."** The Challenge seeks to foster the adoption of smart water technologies by showcasing **the ability of intelligent water systems to effectively leverage data for better decisions.**

Solution Goals:
- Demonstrate the value of intelligent water systems
- Leverage data using the best available tools to better understand and make decisions.

Prizes:
The Challenge will recognize the best solutions developed by Challenge responders, offering a top prize of $25,000. Recognition will also be given to innovative approaches and to outstanding contributions from students or young professionals.

The Intelligent Water Systems Challenge will work with water utilities around the world to identify individual challenges. Teams will work to address these individual challenges through innovative analytics applied to data from utilities' intelligent water systems. Some utilities may have capacity and interest to participate directly on teams, while other utilities may limit their involvement to furnishing a problem statement and relevant data. The Challenge will therefore distinguish between two types of solvers:

- **Regular teams** will select a Challenge problem statement provided by a utility and develop and implement a solution approach with minimal interaction with the utility. Multiple regular teams can select the same challenge and **independently** implement a solution.
- **Partnered teams** have one or more members from a utility active on the team. They will work with the other team members directly to define a problem statement, plan an approach, and implement a solution based on datasets provided by that utility.

The two types of teams will be judged independently according to the criteria shown in the Judging Sheet on the next page.

Intelligent Water Systems Challenge Judging Sheet

TEAM NAME	(team name)
JUDGE	(judge name)
SCORE	out of 140

Raw (0-10) x Weight = Score

TEAM

1 **Team** includes necessary skills and has appropriate utility input or *(partnered teams only)* representation. x 1.0 = out of 10

PLAN

2 **Problem Statement** that shows understanding of how analytics can address utilities' challenges in utilities' terms *(partnered teams only)*. x 2.0 = out of 20

3 **Characterization of the Intelligent Water System** by describing the existing system or its salient parts. x 1.0 = out of 10

4 **Plan** that lays out a realistic timeline and approach for achieving the intended solution. x 1.0 = out of 10

IMPLEMENT

5 **Data** streams are clearly identified and **QA/QC** appropriately discussed. x 2.0 = out of 20

6 **Analysis & Interpretation** deliver results that clearly support the intended solution. x 2.0 = out of 20

7 **Communication & Use** provide actionable results supporting decisions. x 2.0 = out of 20

8 **The Solution** meets utility expectations using appropriate tools. x 2.0 = out of 20

JUDGE'S IMPRESSIONS

9 **Recognition** of alignment with IWSC goals, scalability and sustainability, lessons learned, and more. x 1.0 = out of 10

COMMENTS