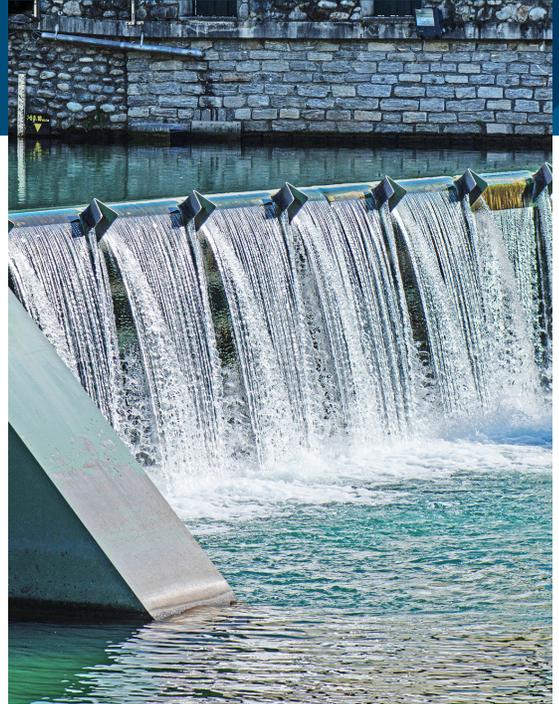


## Use Case: Dam Monitoring

### Problem

The Department of Conservation & Recreation from a US state is tasked with helping dam owners manage more than 100 dams throughout the region. Monitoring high water levels at dam sites is a critical responsibility of the dam owners, who had to send staff to each individual site to physically observe and measure water levels. This proved to be costly and inefficient, especially during severe weather (e.g., storms) when water level has the potential to quickly rise across multiple locations. Plus, the inability to swiftly notify the nearby population of impending flooding could lead to severe consequences, especially for those living downstream. With these challenges in mind, one of the department's dam engineers contacted Onset seeking an efficient, effective solution that would allow the department and dam owners to remotely monitor water level at each dam site.



### Solution

Onset recommended the [HOBO MicroRX Water Level Station](#) – a cellular, web-enabled water level monitoring solution that can be used for stormwater, floodwater, irrigation, hydrologic, and other environmental applications. The system has pre-programmed water flow formulas for select weirs, flumes, and a stage discharge table, which results in an easy and intuitive configuration. New water flow and accumulated rainfall calculations, performed directly on the station at the time of measurement, trigger immediate notifications of critical water level conditions. The compact, competitively priced station, with its non-vented water level sensor, withstands deployment in harsh conditions and provides the reliable monitoring needed for critical applications like dam monitoring. The HOBO MicroRX, which is available with battery power or an integrated solar panel, supports a wide range of plug-and-play smart sensors for flexible environmental monitoring.

## Results

Since installing a MicroRX Water Level Station at each of the state's dam locations, the department, along with dam owners, is monitoring water level remotely via [HOBOLink](#), Onset's cloud-based software platform. Most importantly, they now rely on remote alarms that trigger at the time of measurement, so they can take quick and pointed response actions, if necessary. Physical observation and measurement have been virtually eliminated, saving time and money, and allowing resources to be deployed elsewhere. Manual calculations have also been eliminated and replaced with pre-programmed formulas. And because the MicroRX stations are highly durable and can withstand harsh environments, they do not have to be pulled from the water during winter months, which is another advantage for the dam owners.

*"It's affordable and easy to deploy. Other manufacturers of water level products were confusing, with so many parts and hidden costs. With Onset, I bolt the unit to a pole, put the sensor in the water, done!"*

*- Charles W., District Dam Engineer*

## Products Used

Product	How it was used
<a href="#">HOBO MicroRX Water Level Station</a>	For continuous monitoring of water level at 100 dam sites
<a href="#">HOBOLink - Onset's cloud-based platform</a>	For remote access to monitoring data, and automatic alarm notifications via text or email should conditions exceed user-set thresholds

# ONSET

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