

## Use Case:

### Enhancing Tribal Water Quality Monitoring: Clearer Data, Cleaner Water!

## Problem

#### Insufficient water monitoring methods to measure environmental impacts

A federally recognized tribe was concerned that the health of its lakes and rivers was at risk. The rising threat of upstream pollution sources, such as agricultural runoff and urban development, prompted the tribe to regularly monitor the water quality of its surface water bodies, many of which support critical fisheries.

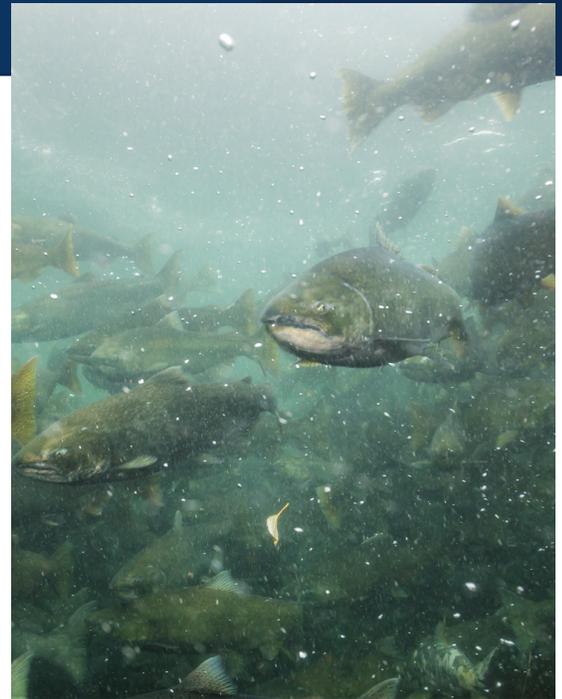
Early monitoring attempts were time-consuming, labor-intensive, and provided limited data. Without continuous monitoring, the tribe risked missing sudden or temporary changes in water quality, leaving its members unaware and unable to address potential issues quickly.

## Solution

#### Multiparameter water quality loggers with wireless data offload

After developing a Quality Assurance Project Plan (QAPP) and securing a grant through EPA's Clean Water Act Section 106 Tribal Grant program, the tribe enhanced its monitoring capabilities with [HOB0 MX800 Multiparameter Water Quality Data Loggers](#).

Designed for long-term continuous monitoring, MX800 loggers eliminated the need for manual water testing. Equipped with Bluetooth technology, the MX800 loggers streamlined the data collection process, allowing environmental scientists within the tribe to wirelessly offload data to a mobile device or laptop running the free [HOB0connect app](#), saving both time and effort. An optional adapter allows two sensors to be connected to a single logger, simplifying deployment and enabling simultaneous measurement of multiple parameters, including conductivity, temperature, depth (CTD), and dissolved oxygen.



# Results

## Improved efficiency in data collection and EPA water quality reporting

Since the tribe's scientists started using MX800 loggers to monitor water quality, they have seen vast improvements in data accuracy and data collection efficiency. Now they're equipped to respond quickly to potential environmental threats and can focus more on analysis and conservation efforts (instead of labor-intensive data retrieval). Plus, the data provided by the MX800 loggers ensures the tribe's ability to meet EPA Section 106 reporting requirements, demonstrating compliance with federal water quality standards and supporting grant renewal efforts.

*HOBO data loggers have streamlined the monitoring processes, improving the tribe's ability to safeguard critical water resources, protect fish populations, develop long-term water management plans, and continue tribal traditions.*

*-Paul Gannett, Principal HOBO Product Manager*

## Products Used

Product	How it was used
<a href="#">HOBO MX801 Data Logger</a>	To monitor water quality and water level at critical water bodies on tribal lands
<a href="#">CTD Sensor</a>	To measure water conductivity, temperature, and depth
<a href="#">Dissolved Oxygen Sensor</a>	To measure dissolved oxygen levels in water
<a href="#">HOBOconnect Monitoring App</a>	To wirelessly offload and manage data from MX800 loggers

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