

### CHALLENGE

A disturbance in the industrial process, i.e. when wastewater of abnormal quality or quantity is suddenly discharged to the municipal wastewater treatment plant (WWTP), causes specific challenges for the treatment process at the WWTP. Especially in these situations, wastewater quality monitoring at the municipal wastewater treatment plant is important.

### SOLUTION: AQUATEST-MO MONITORING TOOL

Monitoring of wastewater quality is especially important and useful in cases of the municipal WWTP receiving an unexpected load from industry. The WWQM (Waste Water Quality Monitoring) project was run recently in Poland, and the aquaTest-MO monitoring tool was tested. It is a new quality monitoring and control product for WWTPs based on on-line measurements of the effluent. The tool allowed Iława WWTPs, where the tool was installed, to run affordable on-line monitoring of the treatment process, resulting in a higher quality of treated wastewater (less time until the detection of problems, reduced time to problem solutions), meaning increased productivity of the whole system and faster wastewater quality control. It allows for quick reaction of plant operators in the case of a sudden discharge of industrial wastewater.

### BENEFITS OF AQUATEST-MO MONITORING TOOL

There are several benefits of the aquaTest-MO monitoring tool:

- continuous measurement and control of process parameters - temperature, dissolved oxygen, pH, conductivity, redox potential, turbidity, SAC (spectral absorption coefficient)
- easy observation of process changes at WWTP (disturbances, unexpected load discharges)
- the ability to quickly control the processes
- improved process efficiency
- improvement of the natural environment by improving the quality of the discharged wastewater
- easy integration with already existing systems
- remote control and access to archived data
- low installation requirements and easy operation



### PERFORMANCE OF THE TOOL IN IŁAWA WWTP

The tests showed the usefulness of the tool both at the influent and effluent of the WWTP. Application of the tool for wastewater process monitoring result in mitigation of the consequences and protection of the plant in the case of unexpected loads.