

## China CCTV News Report on Developments Along Yangtze River

*China Central TV – CCTV 13 reported on developments along the Yangtze River in their Yangtze River Economic Belt Report Programme 大江奔流 – 来自长江经济带报道 with mention of ZWEEC's Biomonitoring System – AquaTEC, being able to detect the presence of contaminants in very short time.*

Synopsis – 8<sup>th</sup> August 2018

The Yangtze River Commission plans to implement basic real time online water quality monitoring systems for the major discharge outlets into the Yangtze River by the end of this year.

Water discharged into the Yangtze River tends to be in large volumes and of varied water quality containing concealed contaminants.

Today, the water discharge conditions are not fixed. For example, water is discharged in fine weather conditions while no water is discharged during rainy weather. Another scenario is no discharge during day time and discharge during night time. This increases the difficulty of the monitoring situation for the authorities.

This year the Yangtze River Commission has expanded the capability of monitoring and testing by increasing usage of drones, implementing remote monitoring and biotoxicity detection.

CCTV's Zhang Wei reports from the Yangtze Valley Water and Environment Monitoring Centre in Wuhan. He refers to the bio-monitoring system AquaTEC and states that the system can detect contaminants in the river water within 30 minutes. This is half the time traditional methods would normally take and the sensitivity is substantially improved.

Traditional laboratory methods to identify contaminants usually take a long time, ranging from a few hours to a few days. The testing index is limited as the quantity of possible contaminants could add up to tens of thousands. There is also the possibility of re-contamination.

Dr Wang Yingcai, Biological Monitoring Division Chief, Yangtze River Commission, says in his interview that by monitoring fish activities and behaviour, the system can rapidly report the presence of contaminants upon the event happening even though the type of contaminant might not be accurately identified.

Besides upgrading the technical aspects of monitoring the discharge outlets into the river, the Yangtze River Commission did a comprehensive investigation on the outlets in 2017

The Commission's Director General Mr Zang Xiaoping shares that there are 6092 discharge outlets into the Yangtze River. The existing problems preventing comprehensive checking of the outlets include incomplete setup procedures and the large numbers of concealed discharge conduits.

To solve the issues encountered during monitoring of contaminants that cannot be seen, cannot be determined nor accurately identified, the Yangtze River Commission is trying out various methods such as changing concealed conduits, licensing, building infrastructure. The aim is to improve accurate measurement of the amount of pollution into the river and the emission patterns.

Mr Zang says that for the 58 major discharge outlets located in the drinking water zone, rectification works for 52 have been completed. The current rectification works for the rest of the outlets is ongoing and would be completed at the end of this year. The 58 upgraded discharge outlets would have the capability of remote real time online water quality monitoring.