Republic of Serbia
Ministry of Environmental Protection
Serbian Environmental Protection Agency

Modern laboratory equipment for water quality monitoring -- WFD request

NORMAN ICPDR Joint Danube Survey 4 (JDS4) brainstorming workshop6-7. September 2018

History of implementation of water monitoring in Serbia

Result on reports of water quality testing in 1965 and 2015

source: Serbian Environmental Protection Agency

Gas chromatograph - time-of- flight - mass spectrometer (GCxGC-TOF-MS)

Gas chromatograph - time-of- flight - mass spectrometer (GCxGC-TOF-MS) for comprehensive gas chromatography with automated sample preparation/sample introduction facility and autosampler system fully compatible with SBSE and LVI techniques

Analytical methods:
1. pesticides
2. Industrial pollutants
3. PAH

Gas chromatograph – triple quadrupole - mass spectrometer (GC-MS/MS) with automated sample preparation/sample introduction

Gas chromatograph – triple quadrupole - mass spectrometer (GC-MS/MS) with automated sample preparation/sample introduction facility for analysis of WFD priority substances and identification of river basin specific pollutants.

Analytical methods:

1. Pesticides and biocides
2. Polyaromatic hydrocarbons
3. Industrial pollutants
4. Volatile organic compounds
5. Pentachlorophenol
6. Brominated diphenylethers
7. Chloroalkanes C10-13
8. Dioxini, furani and PCB-DLs

Ultra High Performance Liquid Chromatograph (UHPLC) with Diode Array UV Detector (DAD UV) and high resolution MS/MS spectrometer with on-line SPE sample preparation

UHPLC with DAD Detector and high resolution QTOF/MS spectrometer with on-line SPE sample preparation system, chromatographic control for analysis of WFD priority substances and identification of river basin specific pollutants.

Analytical methods:

1. Triazine and phenylureate herbicides
2. Neoicotinoide pesticides
3. Macrolide antibiotics
4. Estrogens
5. Phtalates
6. PFOS
7. Microcystins