Scenario Analysis for World Water Quality Assessment

**OBJECTIVE:** organise two workshops to develop ‘light’ water quality scenarios for the World Water Quality Assessment

1. ‘Light’ scenarios are first scenarios developed without funding, using available data and models, a pragmatic approach and a large amount of voluntary time from contributors

**WORKSHOP 1**
- 4 Afternoons June 2021, online
- 44 participants
- Aim: to develop storylines for and quantification of input variables for water quality models

**Intermediate modeler meetings**
- July & September 2021
- Aim: to decide on details for modelling exercise

Running water quality models
- 10 model groups run their large-scale water quality models
- Outputs:
  - Future water quality: 2030, 2050 and 2100
  - Various variables: biological oxygen demand, nutrients (N&P), plastics, chemicals, arsenic, pathogens, chlorophyll-a
  - Mostly rivers, arsenic for groundwater
  - Scenarios contain socio-economic development (SSPs) and climate change (RCPs) (SSP1-RCP2.6 or 4.5, SSP2-RCP6.0, SSP5-RCP8.5)

**WORKSHOP 2**
- 15 and 16 February 2022, online
- Open for registration
- Aim: to develop storylines for water quality

Follow up meetings
- To develop the papers further
- Model intercomparison
- Scenarios for WWQ Assessment

**Timeline**

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<th>June 2021</th>
<th>Present</th>
<th>November 2022</th>
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**Outputs (completed and expected)**
- Community built to develop scenarios
- Missing future data detected and approach for quantification of drivers developed
- Database with scenario input data for the water quality models
- First storylines developed for drivers and water quality
- Scenario chapter in the World Water Quality Assessment
- Draft setup for paper on scenario development
- Draft setup for paper on future water quality (far future and achievement of SDGs)
- First ideas on creating funding opportunities