



Water Quality Aquatic Services: Use of Data Science in the Aquawatch GEO Initiative

Ghada El Serafy (1), Andrew Taylor (2), and Steven Greb (3)

(1) Specialist in data science and assimilation, Unit of marine and coastal systems, Deltares, Delft, Netherlands (ghada.elserafy@deltares.nl), (2) Associate Dean for Research Faculty of Natural Sciences Biological and Environmental Sciences, University of Stirling, (3) Associate Fellow University of Wisconsin-Madison

Water quality is essential for human, ecosystem and economic health. Degradation of water quality can result in human exposure to disease and harmful chemicals, reduction in productivity and diversity of ecosystems and damage to aquaculture, agriculture and other water-related industries. The AquaWatch Initiative is a water quality community within the Group on Earth Observations (GEO) that seeks to develop and build the global capacity and utility of Earth Observation-derived water quality data, products and information to support effective monitoring, management and decision making. The work of the group to be presented includes data assimilation, data fusion, data mining techniques used to merge information from EO into water quality models in aquatic ecosystems marine, coastal and lakes. The work presented would highlight the Data Science techniques within some of the projects that use Data Science techniques. AquaWatch is currently focused on developing a global water quality information service by 2025.