

# Early Warning System



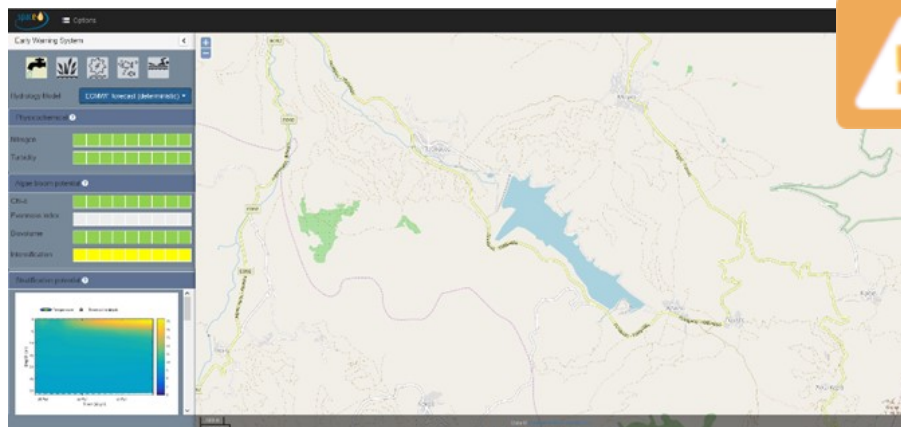
The Early Warning System (EWS) aims to promptly indicate incidences of water quality deterioration that potentially have high impact on the function of the downstream water utility services.

## Applications

- ⚡ Warnings related to stratification or destratification events induced by wind or temperature changes.
- ⚡ Warnings on physicochemical parameters that affect the operation of the downstream water utilities.
- ⚡ Warnings on algae bloom occurrence, intensity and duration.

## Benefits

- ⚡ Interpretation of forecasts in readily comprehensible warnings that can be coupled with specific proactive practices.
- ⚡ Enhancement of the resilience and the adaptive capacity of water reservoir managers and water utility operators.
- ⚡ Mitigation of the impact of potentially harmful algae blooms.



## Product Overview

The EWS employs the output of the water quality forecasting service of SPACE-O aiming to create interpretable warnings on water quality-related parameters. Specifically, the EWS issues warnings on (a) the stratification and mixing patterns of the reservoir (e.g. thermocline depth, lake number etc.) (b) physicochemical parameters such as nitrate concentration and turbidity, and (c) phytoplankton-related metrics such as the chlorophyll-a concentration, the biovolume of cyanobacteria, the species evenness index, and the bloom intensification index. The warnings are closely related to the function of the downstream water infrastructure and, therefore, they refer specifically to the vicinity of the water abstraction points.

Space Assisted Water Quality  
Forecasting Platform for  
Optimized Decision Making in  
Water Supply Services



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The SPACE-O Consortium



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