

Your Online Toolbox for Hydropower Planning

HYPOS benefits planning engineers who design outlet structures, set up sediment management plans, evaluate upstream and downstream impacts, plan for activities like flushing or prevent environmental impacts. With HYPOS they gain quick access to robust and cost efficient water quality data. By combining satellite based with field and modelling data the online toolbox creates digital twins of river systems worldwide. This can simplify assessment and planning routines significantly.



MAIN APPLICATIONS:

- Baseline environmental information based on historical data
- Calculation of sedimentation rates and flows
 - Design of release structures / gauging stations
 - Environmental reporting and impact assessment

KEY BENEFITS

- + Planning data of regions worldwide
- + Overcome knowledge gaps in data-scarce areas
- + Robust data with high temporal and spatial resolution
- + Historical data for +30 years back in time
- + Time savings due to speedy cloud processing and intuitive interface

Understand sediment dynamics in the catchment

Turbidity plume in the Nurek reservoir (Tajikistan). The Vakhsh river contains a cascade of dams, reliable data for sediment management practices on various scales are required.

KEY TECHNICAL PARAMETERS

Satellite-derived information

Data are based on EOMAP's renowned MIP system and bio-optical modelling algorithms. In addition, the datasets have been validated in four hydropower sites across Europe.

+ Turbidity [FTU/NTU]

1.5 2.5 15 50 350 650

- + Total Suspended Matter [mg/l]
- + Water Surface temperature [°C]
- + Chlorophyll a [µg/l]
- + Harmful Algae Bloom (HAB) Indicator
- + Evaporation rates [mm]
- + Land cover dynamics

Hydrological model information

HYPOS offers direct access to global data based on the HYPE model by the Swedish Meteorological and Hydrological Institute (SMHI). Customized models are available upon request.

- + River Discharge [m³/s]
- + Precipitation [mm]
- + Sediment Load [mg/l]
- + Water Temperature [°C]
- + Soil Moisture [-]

SERVICE PACKAGES / PRICING

	Standard	Premium
Spatial Resolution	10 – 30 m	2 m
Temporal Resolution	up to 3x / week	up to daily
Coverage	since 1980s	since 2022
Data availability	NRT	NRT

Final prices depend on the area and parameters covered. Please request an individual quote at **wq@eomap.de**.

Try hypos.eoportal.de and monitor hydropower reservoirs from the comfort of your desk!

Earth Observation and Environmental Services **eomap.com**