

Customized solutions to
maximize your profits and
well-being.



HYDROLOGY



Past experiences and current circumstances shape our clients' needs and connect them to the futures they can achieve. At Alisios Corporation, our commitment is to offer you the highest quality services to help you plan and build the future you desire.

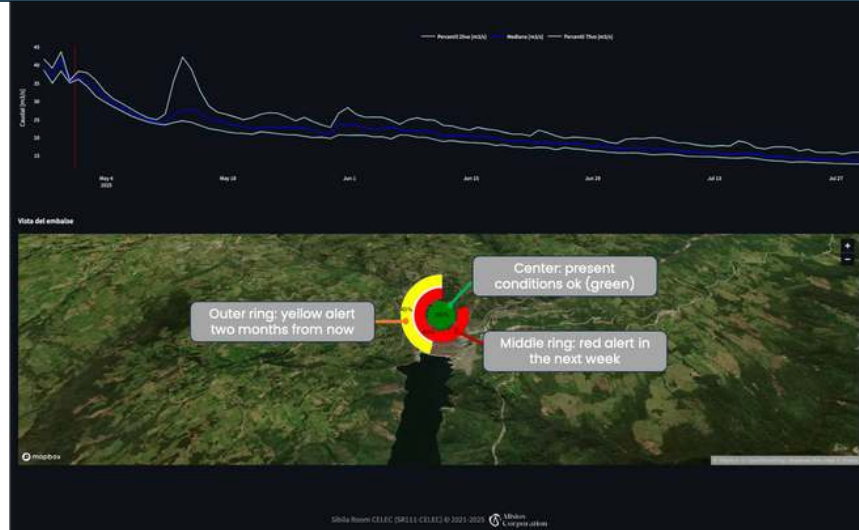
HYDROLOGICAL SERVICES

- Short- and Medium-Term Forecasting
- Seasonal Forecasting
- Interannual Forecasting
- Forensic Hydrology
- Flood Monitoring and Forecasting
- Sibila Rooms

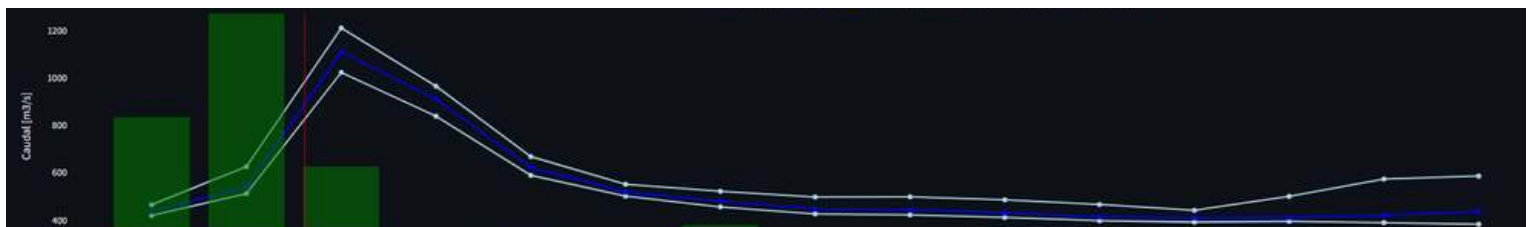


SHORT- AND MEDIUM-TERM HYDROLOGICAL FORECASTING

We offer reliable and calibrated hydrological forecasts, developed using simulation models and observational data, which make it possible to anticipate the behavior of key variables such as river flow, reservoir levels, surface runoff, soil moisture, aquifer recharge, and flood risk, also taking into account the impact of precipitation, temperature, and other relevant meteorological factors.



- River flow and reservoir level forecasting.
- Runoff prediction and overflow risk assessment.
- Hydrological models calibrated with local data.
- Spatial resolution: 5–15 km².
- Customized bulletins and expert support.



SEASONAL FORECASTS

People make better decisions when they can plan with sufficient lead time. To this end, Alisios Corporation offers, in addition to weather and intraseasonal forecasts, complementary predictions on seasonal time scales, which describe the expected state of relevant climate variables.

These services answer questions such as:

- Will there be drought or excess rainfall in the coming months?
- Hydrometeorological models to forecast water availability.
- Probabilistic outlooks for agricultural, energy, and water planning.
- Resolution: $\sim 50 \text{ km}^2$.
- Customized bulletins
- Expert support
- Sibila Rooms

INTERANNUAL FORECASTS

For clients interested in water behavior in the coming year or the next hydrological cycles, we offer an interannual forecasting service that allows anticipating scenarios of water availability, variations in flow rates, reservoir levels, runoff, and risks of droughts or floods. This service facilitates strategic planning through the analysis of key variables such as accumulated precipitation, average temperature, soil moisture, and the projected impact of phenomena like El Niño or La Niña.



- **Water availability scenarios for 1–5 years.**
- **Risks of events such as El Niño and La Niña in key basins.**
- **Trend and anomaly analysis.**
- **Customized bulletins**
- **Expert support**
- **Sibila Rooms**



FORENSIC HYDROLOGY

This service provides medium- and long-term hydrological projections, integrating the effects of anthropogenic climate change with the natural variability of the hydrological system. These projections enable companies, governments, and organizations to anticipate how climate changes could affect water availability and distribution, watershed management, hydraulic infrastructure, and water security in key sectors such as agriculture, energy, and urban areas.



- **Technical evaluation of past hydrological events.**
- **Expert reports on claims related to floods, failures in hydraulic infrastructure, or inadequate water management.**
- **Determination of causality and legal responsibility.**

FLOOD MONITORING AND FORECASTING

We offer a flood monitoring and forecasting system that integrates real-time data, hydrological and meteorological modeling, field sensors, satellite imagery, and probabilistic analysis to:

- Detect areas with imminent risk of overflow.
- Issue early warnings based on critical thresholds.
- Predict the evolution of extreme events hours or days in advance.
- Support emergency, evacuation, or mitigation plans.

This service is ideal for local governments, utility companies, critical infrastructure, agricultural sectors, and any organization managing water in areas exposed to intense rainfall or sudden floods.



- Early warnings for extreme events.
- Prediction of flooding zones using digital terrain modeling.
- Integration with sensors and weather radars.

HYDROLOGICAL PROJECTIONS FOR CLIMATE CHANGE

This service provides medium- and long-term hydrological scenarios, combining the impact of anthropogenic climate change with the natural variability of water systems.

We use advanced climate and hydrological models, along with observational data, to estimate how the availability, distribution, and quality of water resources could change in the future.

We offer:

- **Flow and runoff projections in key basins.**
- **Risk assessment of prolonged droughts and extreme floods.**
- **Impact analysis on reservoirs, aquifers, and catchment systems.**
- **Customized scenarios for planning and adaptation.**



- Expected impact on water resources.
- Changes in rainfall patterns, runoff, and aquifer recharge.
- Support for water adaptation and resilience plans.

SIBILA ROOM



In a world saturated with information, the ability to act depends on how you interpret it.

Sibila Room gives you that power.

Decide which monitoring and forecasting services you want to see, how, and when. On your computer, tablet, or phone.

Generate maps and graphical or text reports instantly, and share them with anyone. In ancient times, people had to find the Sibyl's chamber in a cave to glimpse the future. Today, we bring it to the palm of your hand.



Do you have a challenge
for us?
Ask for our demos.



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