

## SMHI AQUA – WATER SUPPLY ASSESSMENT TOOL

Availability of freshwater became a sensitive topic due to the recent hotter temperatures in summer and lack of precipitation that made it difficult for public and private sector to provide urban water supply. The AQUA service helps you monitoring and planning management of surface and groundwater resources throughout the year in an optimal way.



AQUA is an easy and intuitive visualization tool designed to provide hydrological information to drinking water producers and water managers. The web-based system shows meteorological and hydrological observed and modelled data as well as short and long term forecasts of surface and groundwater availability.

### **OPTIMAL PLANNING OF FRESHWATER RESOURCES**

Our expert hydrologists model your freshwater reservoir at the local scale to have a better description of the system and to ensure high reliability of the results. AQUA helps you monitoring and optimally managing your reservoir by providing short and long-range forecasts on water levels and water flow. Different water extraction rates are

provided from the user to evaluate how freshwater availability is affected on the long run. If available, historical data can also be displayed to facilitate the comparison of the current situation against “below”, “near” and “above” normal historical values.

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### **For more information contact:**

Carolina Cantone  
phone +46 (0)11 495 83 69  
e-mail carolina.cantone@smhi.se

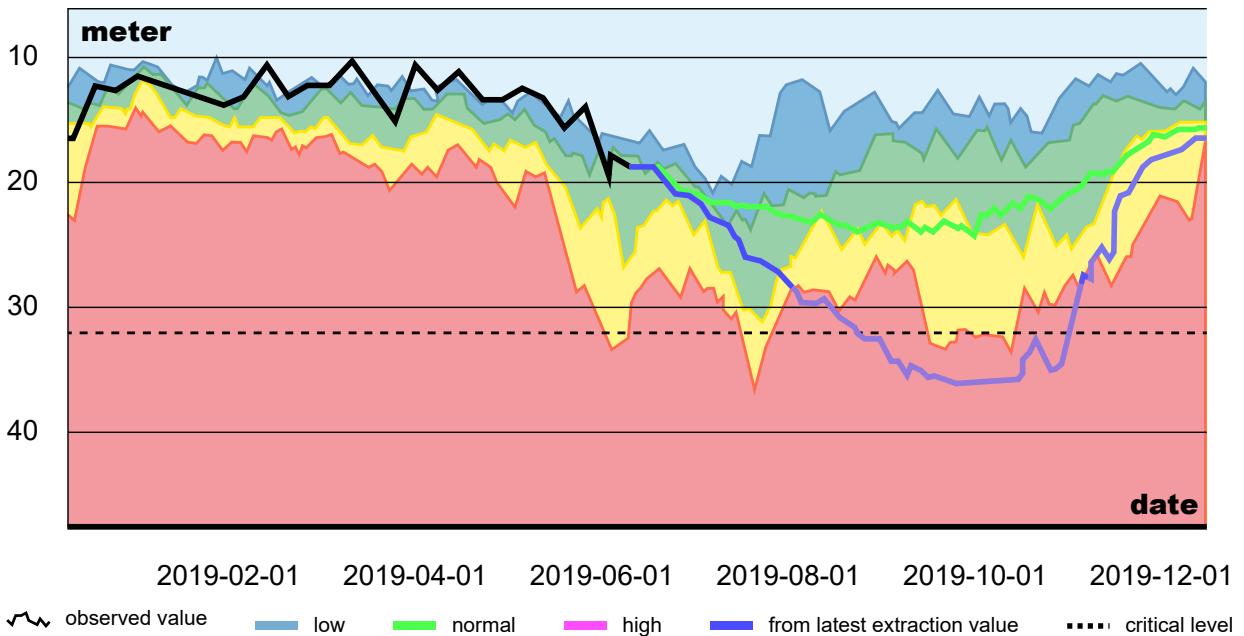
**CHOOSE YOUR COSTUMIZATION**

We provide two versions of the web interface, one “Basic” and one “Plus”, depending on your needs:

- **AQUA Basic** includes module for visualization of local real-time observations in form of graphs and tables. Data can be easily imported into excel or other standard format files.
- **AQUA Plus** in addition to the basic version features, it includes local scale modelling of freshwater reservoirs

and seasonal forecasts. The operational models are updated with real-time observations and run daily. Water extraction strategies and critical levels provided from the user can be included. Modelled data are visualized in graphs and tables.

The system can be set up in your own language and include multi-language feature. AQUA is supported on desktop and mobile devices.



Visualization of long term forecasts for groundwater levels. The graph shows observed values (black line) six months back and forecasts (blue and green lines) six months ahead than today. Forecast lines show how the levels are affected from different water extraction strategies. The background represents the historical measured levels in the reservoir and the color field is divided according to the deviation from normal condition (High above normal, Above normal, Normal, Below normal, High below normal). Critical levels are visualized on the graph as dashed lines.