Local Marine Water Forecasting

Local Marine Water Forecasting is dedicated adaptations of DHI’s Coastal and Marine Water Forecast Service focusing on local issues as bathing water quality and noxious algae.

DHI’s Coastal and Marine Water Forecast Service is a complete operational and online service. It is tailor made and provides hydrographic, environmental and meteorological information for locations worldwide.

Why Local Forecasts?
Modern water administration calls for proactive management. The local Water Forecast provides nowcast and forecast information making it possible to take timely actions to protect human health and lives, materials and investments. This is contrary to traditional systems that rely on old data.

Users
Local Water Forecasts support amongst others:

- Storm Water Managers
- Bathing water managers
- Environmentalists and fish farmers needing timely warnings of noxious algae
- Boat owners wishing to know the water level to make sure that his boat remains safely on the shore
- Marine farmers who need to know how salt and temperature vary to ensure optimum feeding of the fish
- Anglers who want to know where the cold water will hit the shore to increase his chances of finding the salmon
- Engineer managing oil spill and needing to take preventive measures before it reaches environmental sensitive areas
- The persons being responsible for navigation in and out of harbours.

Forecasting
Based on accurate meteorological forecasts, the Coastal and Marine Water Forecast Service provide online forecasts of sea parameter for the coming 3 to 5 days.

For almost a decade a forecast system for the North Sea, the Baltic Sea and the interconnecting seas has been operated. Other areas covered by the forecasting are The Northeast Atlantic, The Gulf of Mexico, The Gulf (between the Arabic countries and Iran), The Caspian Sea and The Sea of Chile

Local forecasts are based on regional forecasts but take into account local conditions. Forecasting of new areas is established as called for covering parameters as currents, temperature, waves, nutrients, algae, pathogenic bacteria.

Copenhagen Local Forecast for Shipping
In the Copenhagen Harbour Forecast current, water level, salinity and temperature are included describing in details the conditions in the narrow channels and small basins of the harbour.
Local Bathing Water Forecast

The Copenhagen Forecast does also provide early warnings on bathing water quality. Copenhagen harbour is primarily used for recreational purposes and the politicians decided that fast and exact information on the bathing water must be available to the users. Contrary to tradition it should be based on real-time data.

This strategy complies well with EU’s new Bathing Water Directive which stipulates that the Member States shall ensure timely information on threats on human health.

In Copenhagen Harbour sewerage outfalls are the main source to pathogenic bacteria. Therefore the early warning system includes registration and modelling of a number of CSOs. Urban runoff modelling and weather radar will further improve the precision of the forecasts.

Information on Bathing Water

Information on bathing water and weather is published on the Internet, as SMS etc.

For further Information

Please visit:

www.waterforecast.com (English)
www.vandudsigten.dk (Danish).
www.bathingwater.dhi.dk