

## Motivation

- Dissolved Oxygen (DO) is considered to be a very important and sensitive indicator of the health of aquatic systems.
- DO is necessary to support life functions of higher organisms and to drive many redox reactions.
- DO also provides key information about the system state.  
eg: Insight into algal blooms, Oxygen depletion rates and Zones of Oxygen depletion.
- The fall of oxygen concentration below the chronic criterion ( $4.8\text{mg/l}^{-1}$ ) developed by the U.S.EPA would result in significant damaging effects on ecological, economic health and stability of aquatic systems.

