

Haderslev Municipality Longline Environment

02/08/2025

STØTTET AF

Promilleafgiftsfonden for landbrug

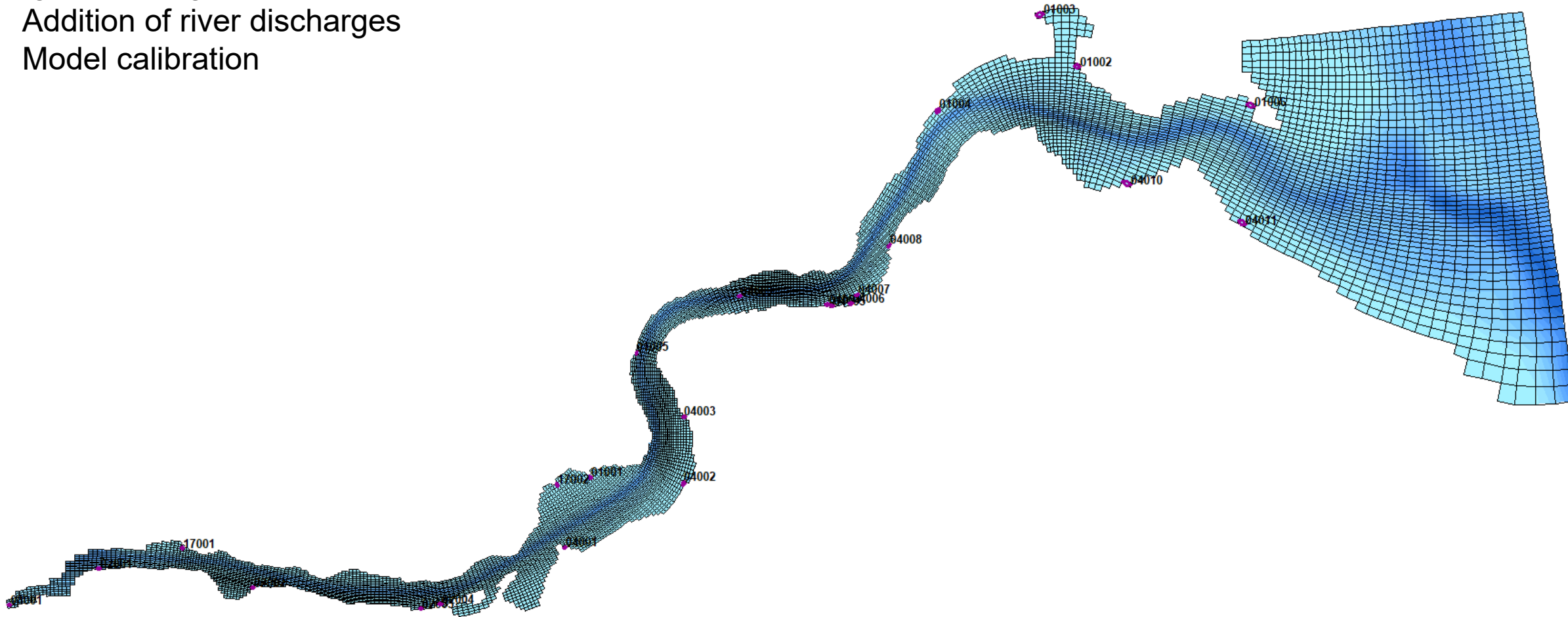
Activities for 2025

- Completion of the setup and calibration of the hydrodynamic model for Haderslev Fjord
- Setting up an ecological model for Haderslev Fjord (85% completed in 2025)
- Eutrophication targets are evaluated and possibly revised (85% completed in 2025)

Hydrodynamic model

Progress during 2025:

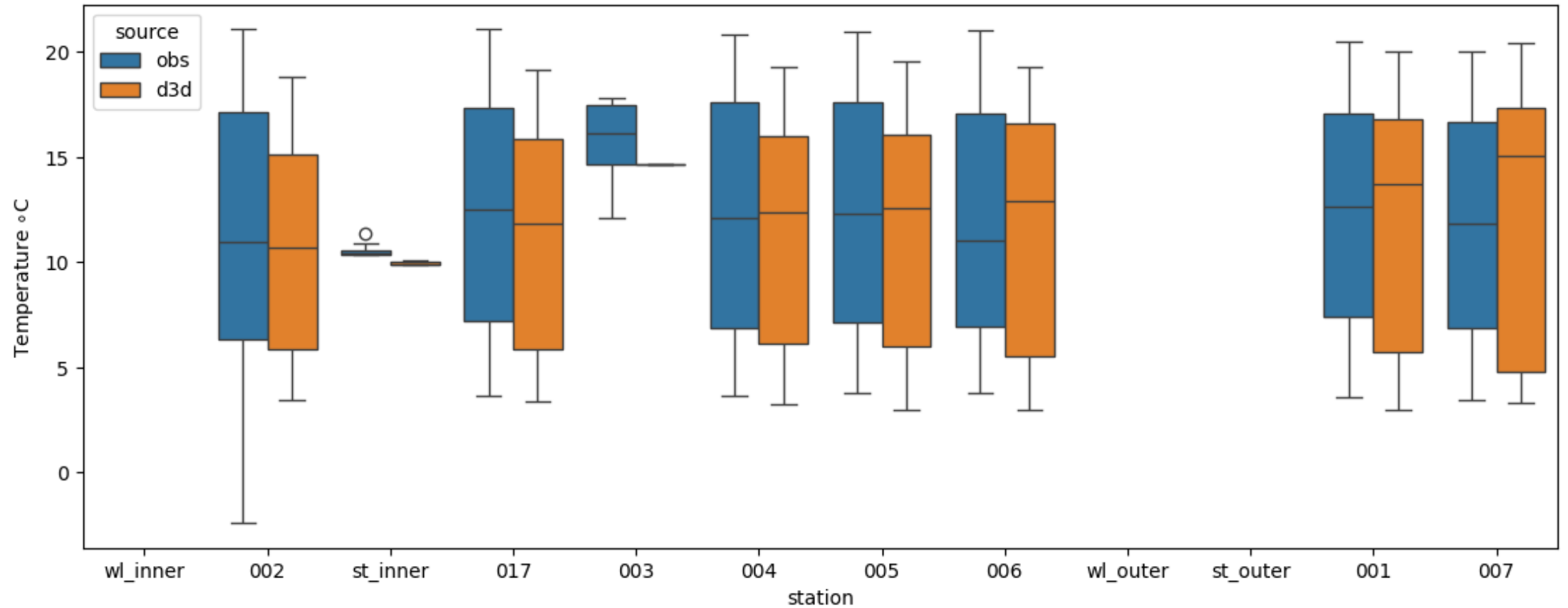
- Addition of river discharges
- Model calibration



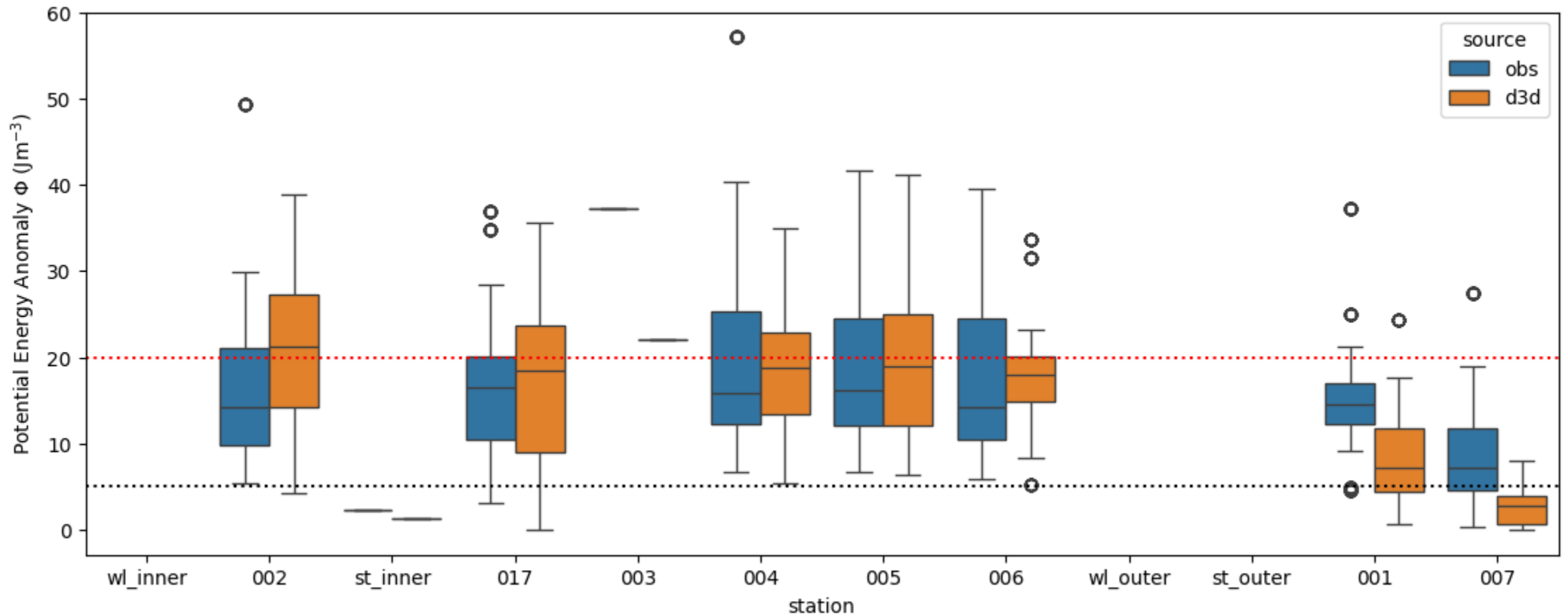
Model performance – water level



Model performance – temperature



Model performance - stratification



•Phi (potential energy anomaly) is a measure of the strength of the vertical stratification. It represents the amount of energy needed to mix completely the water column: $>20 \text{ J/m}^3$ is heavily stratified (think north sea during summer), around 10 is significantly stratified, around 5 is weakly stratified (below is typically considered mixed)

Model performance - salinity

- Work in progress
- Currently, salinity is systematically underestimated due to low values prescribed at the model's boundary conditions.
- But the model successfully captures the stratification that drives water circulation, which is the primary objective of our simulation.

Simulation run:

