

Read Me:

Model Name: DM-05_West_Lakes_Toxics_Example

Objective: Use EFDC+ Explorer (EE) and EFDC+ to simulate hydrodynamics, sediment transport and toxics in West Lake, Hanoi, Vietnam.

Model Grid: 5,060 horizontal grid cells, 3 vertical layers in water column, 4 layers in sediment bed

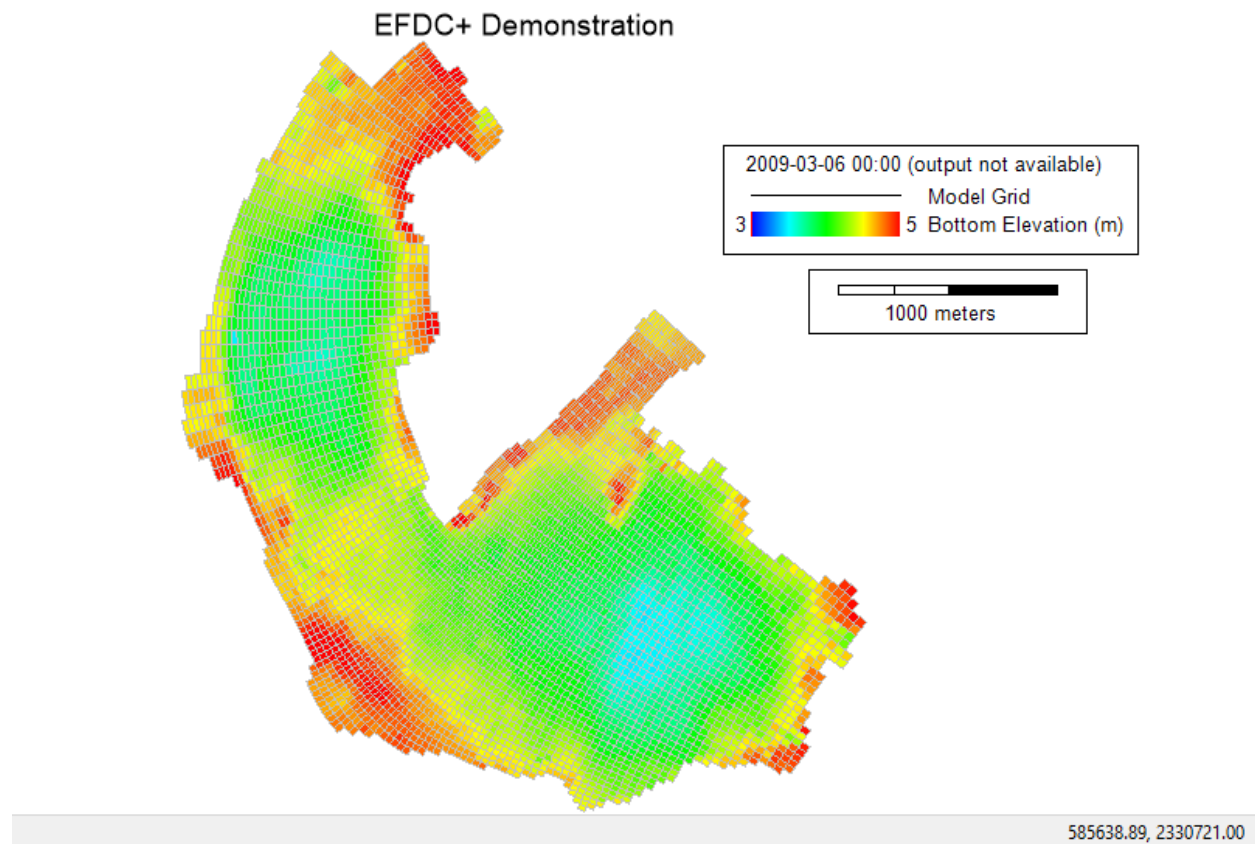


Figure 1 Model Domain of DM-05_West_Lakes_Toxics.

Folder Structure:

Data: This folder contains data that can be used with the model. These data can be measured data or output from model or derived from analytical equations.

Model: EFDC model that can be loaded in EE to pre- and post-process.

Grid: This folder contains grid for building the model

- Westlake.cvl: CVL grid format, EE uses this grid type for building model
- Westlake.kml: This file can be opened with Google Earth

Maps-Images: This folder contains the maps / images of the study area. The formats of the maps / images can be *.geo (geo-referenced file), *.jgw, *.jpg etc.

Test_record file: This file is just a record file that informs which EFDC+ executable was used to run the model.

Modules Activated: Hydrodynamics, sediment transport and toxics.

Description: This model is designed to demonstrate a shallow lake simulation of temperature, sediment and toxics in the water body, as well as sediment and toxics in the lakebed.

Disclaimer: The model is provided to our users to demonstrate that EFDC_Explorer and EFDC+ can be used to better understand how to build this kind of model. The model is running as expected; however, shouldn't be considered final as the model can be modified / refined to obtain improved results.

Files in Data Folder:**Bathymetry**

- West Lake Bathymetry Data 2009.p2d
- West Lake Outline.p2d

Boundaries

- Atmospheric.dat
- Cohesive Sediments.dat
- Flow.dat
- Non-cohesive Sediments.dat
- Polygon1.p2d
- Polygon2.p2d
- Polygon3.p2d
- Temperature.dat
- Toxic.dat

Model Result:

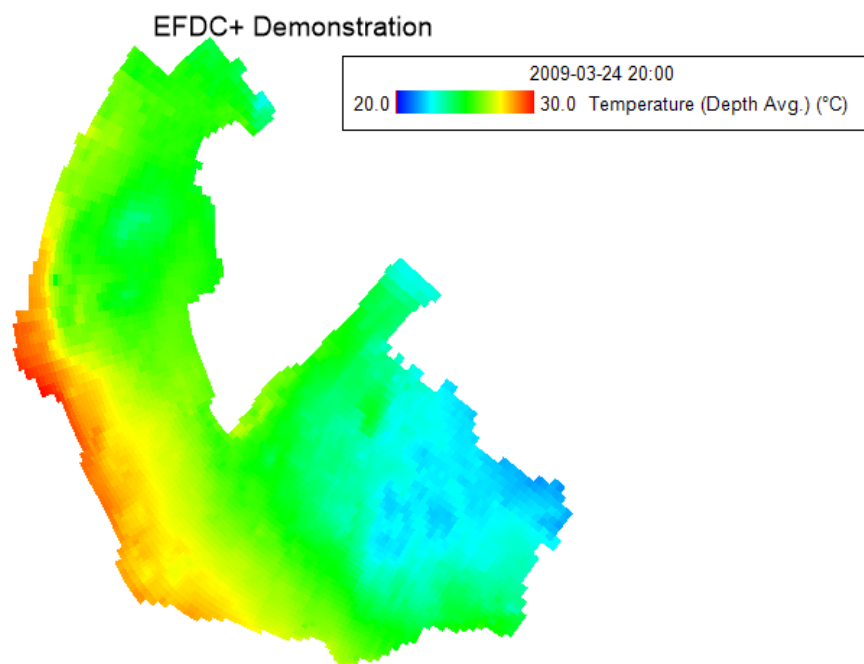


Figure 2 2DH view of temperature from DM-05_West_Lakes_Toxics.

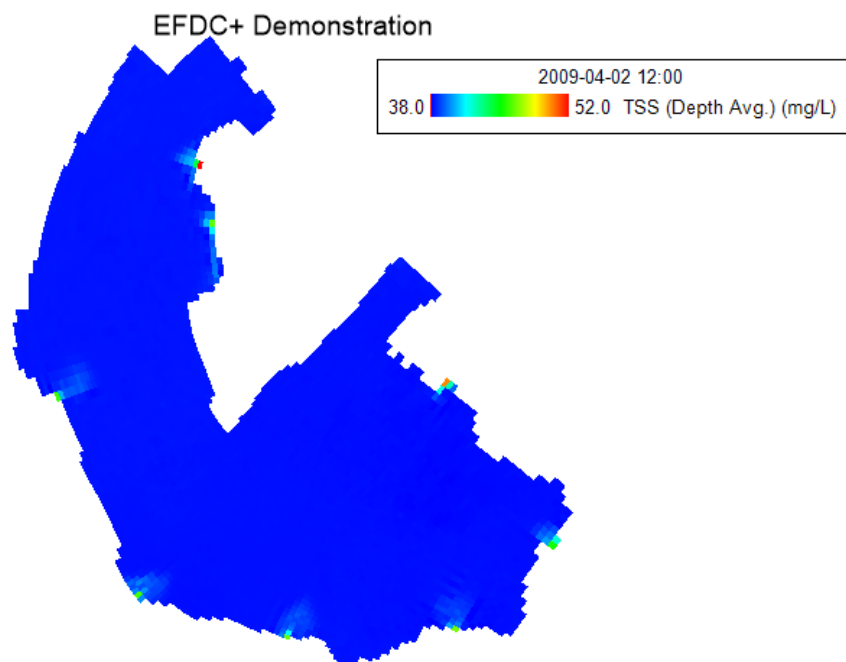


Figure 3 2DH view of TSS from DM-05_West_Lakes_Toxics.

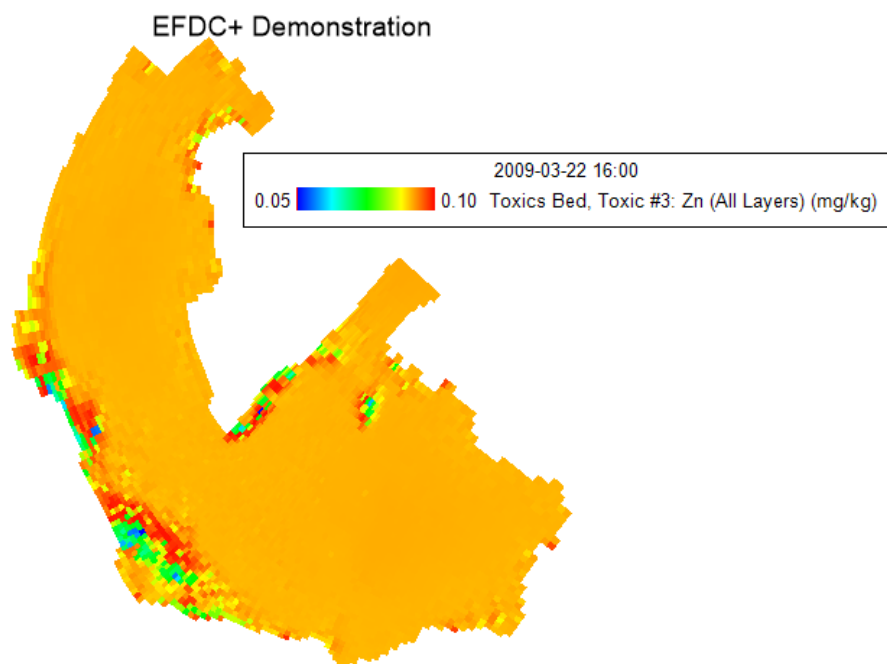


Figure 4 2DH view of Zn from DM-05_West_Lakes_Toxics.