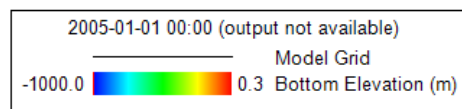Read Me:

Model Name: DM-20_ Straight_Flume_SEDZLJ_Toxics_Example

Objective: Use EFDC+ Explorer (EE) and EFDC+ to simulate SEDZLJ with toxics (naphthalene). One case activates bedload, and the second case has toxics which are diffusion dominated.

Model Grid: 302 horizontal grid cells, 10 vertical water column layers, and 4 sediment layers.

Figure 1 Model Domain of DM-20_SEDZLJ.

Folder Structure:

> **Model:** EFDC model that can be loaded in EE to pre- and post-process.
>
> - Kd_SEDZLJ_DP_Bedload
> - Kd_SEDZLJ_DP_Diffusion_Dominated
>
> **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 (SEDZLJ sub-model), toxics.

Description: This model is designed to test the SEDZLJ sediment transport model, and investigate the impacts of bedload and diffusion and demonstrate different behavior of toxics (naphthalene) between two cases.

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:

> No data folder
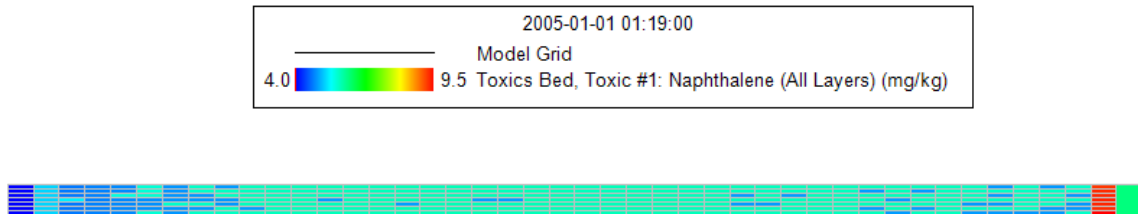
Model result:

EFDC+ Demonstration

2005-01-01 01:19:00
Model Grid
4.0 ▬▬▬ 9.5 Toxics Bed, Toxic #1: Naphthalene (All Layers) (mg/kg)

Figure 2 2DH view of Naphthalene from DM-17 (Kd_SEDZLJ_DP_Bedload).

EFDC+ Demonstration

2005-01-01 01:19:00
Model Grid
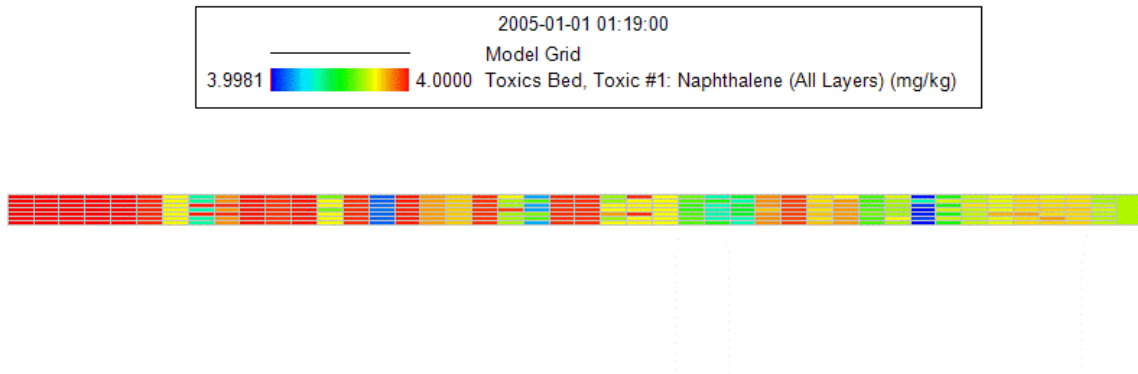3.9981 ▬▬▬ 4.0000 Toxics Bed, Toxic #1: Naphthalene (All Layers) (mg/kg)

Figure 3 2DH view of Naphthalene from DM-17 (Kd_SEDZLJ_DP_Diffusion_Dominated).