To: Robert Law[rlaw@demaximis.com]; Vaughn, Stephanie[Vaughn.Stephanie@epa.gov]
Cc: Geoffrey Seibel[gcs@demaximis.com]; Willard Potter[otto@demaximis.com]
From: Naranjo, Eugenia
Sent: Wed 4/17/2013 2:48:38 PM
Subject: RE: Modeling Status Summary

This is very good. Thanks!

From: Robert Law [rlaw@demaximis.com]
Sent: Wednesday, April 17, 2013 10:39 AM
To: Naranjo, Eugenia; Vaughn, Stephanie
Cc: Geoffrey Seibel; Willard Potter
Subject: Modeling Status Summary

CFT Model

- Detailed model diagnostics have been completed and a calibration strategy has been selected
  - Constrain the model by simultaneously calibrating to the CWCM data (2011/2012) and by depositional-regime-specific bed trends (1995-2010)
- Preliminary calibration of 2,3,7,8-TCDD is ongoing
- Ongoing areas of development include:
  - Incorporation of a fluff layer within the CFT model, to yield more realistic sediment-water interactions and surface layer dynamics.
  - Implementation of a spatially variable mixing scheme, to allow calibration by depositional regime.
  - Exploration of approaches to limit contaminant loss from surface sediments due to artificial contaminant mass transfer within the water column between rapidly and slowly settling particles, i.e., mimicking the effects of rate-limited desorption.
- Organic Carbon simplification code has been completed by CPG and approved by EPA, and will be phased into the CFT model development once the above issues are further along.
  - In the meantime, a less complex treatment of organic carbon is employed, whereby constant carbon content is assigned to cohesive particles in the bed and the water column.

Bioaccumulation Modeling

- Completing CFT-bioaccumulation model interface
- Atlantic menhaden, channel catfish, largemouth bass added to the food web model
- Model extension to Dundee Dam complete
- Preliminary calibration of 2,3,7,8-TCDD pending (contingent on CFT calibration)