To: Mann, Laurie[mann.laurie@epa.gov]
From: Laurie Mann
Sent: Tue 5/9/2017 8:30:37 PM
Subject: Fw: Request for TetraTech contractual services - schedule for TMDL completion???

----- Forwarded by Laurie Mann/R10/USEPA/US on 05/09/2017 01:30 PM -----

From: "Kendra, Will (ECY)" <wken461@ECY.WA.GOV>
To: "Ragsdale, Dave (ECY)" <RAGS461@ECY.WA.GOV>,
Cc: Laurie Mann/R10/USEPA/US@EPA
Date: 11/03/2011 09:14 AM
Subject: RE: Request for TetraTech contractual services - schedule for TMDL completion???

We met with WQ yesterday, and agreed to stick to the schedule of developing scenarios from Jan-Jun 2012. This will be a little awkward in that we won't give the Advisory Committee the draft report until after we get comments from TetraTech (in case we need to make additional changes to the model and report based on the peer review). But Mindy felt it would be manageable, so the plan is to maintain the current schedule.

From: Ragsdale, Dave (ECY)
Sent: Thursday, November 03, 2011 9:01 AM
To: Kendra, Will (ECY)
Cc: Mann.Laurie@epamail.epa.gov
Subject: Request for TetraTech contractual services - schedule for TMDL completion???

Thanks for the heads up Will. I have routinely supported third party review of Ecology's technical work for this and certain other projects because it provides that extra set of eyes to make a better, more defensible analyses. This is especially true when we know the project will elicit affected parties to have the technical work closely examined. The Budd Inlet modeling is some of the most complex Ecology has undertaken and a review will hopefully support work on the South Sound D.O. work (which uses the same model).

Having said the above.... Please tell me this additional third party review will be absorbed into the schedule negotiated between Ecology and EPA for submittal of the Deschutes/Budd Inlet multi-parameter TMDL. Although there are obvious benefits of additional review, it could be considered a luxury and a task I believe EPA already paid for once. Therefore, I would advocate that EPA not provide funding for another review IF the schedule for submitting the TMDL would be further delayed. You and Laurie know the history of this project, so I need say no more.

Thanks again. Dave.

From: Kendra, Will (ECY)
Sent: Thursday, November 03, 2011 8:13 AM
To: Ragsdale, Dave (ECY)
Subject: FW: Request for TetraTech contractual services

Dave, wanted to let you know I am working with Laurie to secure a third-party review of the Budd Inlet/Capitol Lake model. We did not really get this review the first time around – focus of

review was on Deschutes River model instead. We have made some significant changes to the BICL model during the past 6 months, and want an independent peer review before it goes to the Advisory Committee. Our draft technical report will be done by the end of December, so I am asking Laurie to line up a review during the month of January.

From: Kendra, Will (ECY)
Sent: Thursday, November 03, 2011 7:51 AM
To: 'Mann.Laurie@epamail.epa.gov'
Subject: Request for TetraTech contractual services

Hi Laurie, here is a brief synopsis of what we are looking for:

Ecology requests an independent review of its recent Budd Inlet/Capitol Lake water quality modeling work, conducted in support of a TMDL. We used the model GEMSS (Generalized Environmental Modeling System for Surface waters, developed by Environmental Resource Management, Inc.). A numerical model was considered to be a critical tool to quantify the relationships between human sources of nutrient loading at many different locations and the response of DO concentrations in the various sensitive areas. A three-dimensional hydrodynamic and water quality model of Budd Inlet and Capitol Lake was developed for this purpose. The water quality model simulates the concentrations of DO in response to primary production of phytoplankton, which is limited by light, temperature, and nutrient concentrations. Other important processes that affect DO are also included in the model (e.g. oxidation of organic material, reaeration, sediment oxygen demand, and nitrification). The model includes more than 15 water quality state variables and over 50 kinetic processes among these variables.

The purpose of the review would be to verify that the model adequately represents physical and biological processes; specifically phytoplankton kinetics (exchange of material between phytoplankton, water, and sediments). Expertise in 3-dimensional water quality modeling in estuary and freshwater systems is needed, and in particular, expertise in modeling phytoplankton in marine systems.

We estimate cost to be about $15 - $20K. We would like this work to be conducted in January 2012.