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From: Stan Kaczmarek
Sent: Wed 5/8/2013 9:17:15 PM
Subject: Turbidity and Suspended Solids Data
PWCM_Fall_RM102_turbidity.xlsx
PWCM_Spring_RM102_turbidity.xlsx
NTU_SS Correlations.xlsx.xlsx

Stephanie and Ann,

Attached are 3 spreadsheet files of data and analysis provided by AECOM. One file shows that there is a significant correlation between Suspended Solids Concentration and Turbidity for samples collected during 5 different sampling events between August 2011 and August 2012 at River Mile 10.2. The correlation for turbidity as a surrogate for TSS has an overall R2 value of 0.81 and $p<0.01$. Analysis of the data contained in this file also shows that the correlation holds throughout different tide cycles. CPG's draft Water Quality Monitoring Plan (WQMP) requires that the correlation between TSS and Turbidity be reconfirmed prior to and during the RM 10.9 Removal Action.

The other spreadsheet files provide 6 months of continuous turbidity measurements at RM 10.2. The Autumn monitoring occurred from October 11 - December 15, 2009 (2 months, over 7000 data points) and the Springtime monitoring occurred from March 23 to July 23, 2010 (4 months, over 14000 data points).

Regarding sampling depths, AECOM's upper water column monitors were placed 3 feet below the water surface and their lower water column monitors 3 feet above the bottom sediment. CPG proposes in its WQMP to set its turbidity monitors at mid-depth as measured during low tide, which at RM 10.2 will put it at approximately 4.5 foot elevation above the bottom sediment.

If you have any questions on these data please contact Bill Potter, Rob Law or myself.

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