In 2006, a set of activities were employed to recharacterize PCB-contaminated sediment in OU1. These efforts led to refinement of the dredge prism, the deepest soft sediment elevation at which the sediment PCB concentration was expected to be greater than 1 ppm. Recharacterization efforts included additional sampling, updates of the GMS-SED prism model to incorporate the revised sampling dataset, and modifications of procedures used to delineate TSCA-characterized sediments.

Recharacterization sampling was focused on Sub-areas POG3 South and POG2, but was also conducted for areas of Sub-area POG4 South. Most of the sampling for recharacterization was conducted in April 2006, and included sediment sampling as well as poling to define the vertical extent of soft sediment. Additional sampling to address high subgrade was conducted at various periods over the summer of 2006. Additional sampling for Sub-area POG2 was conducted in July 2006. Further details of these sampling events were presented, along with modeling revisions, in project memoranda. These memoranda are discussed below.

Updates to the GMS-SED models were most extensive for Sub-areas POG3 South and POG2. For both of these sub-areas, significant changes to the expected vertical extent of the soft sediment domain required new 3D meshes to be generated, a major modeling task. For Sub-area POG2, the horizontal boundary of the sub-area was also refined to better reflect the southern boundary and also to be better aligned with the model representation of the adjacent sub-areas (POG3, POG4, and E1). No modeling revisions were made in 2006 for Sub-areas C / D2 South and a minor revision to the model for Sub-area POG4 South was made. Further details of the modeling revisions are addressed in memoranda attached to this appendix, as follows:

Attachment 1:
Laszewski, S. (2006), "Proposal for Sub-area A and Sub-area C/D2S Dredge Prism Refinement." Foth & Van Dyke and Associates, Memorandum to Greg Hill, WDNR, Jim Hahnenberg, USEPA and Rich Johnson, Boldt, November 1, 2005.

Attachment 2:
Roznowski, D., and Eykholt, J. (2006), "Proposal for Sub-area POG3 and POG4 Dredge Prism Refinement," Foth & Van Dyke and Associates, Memorandum to Bill Hartman, GW Partners, June 28, 2006.

Attachment 3:
Eykholt, J., and Roznowski, D. (2006), "OU1 Sub-Area POG2 Revisions to Dredge Prism," Foth & Van Dyke and Associates, Memorandum to Bill Hartman, GW Partners, August 17, 2006.

Attachment 1 describes rational for excluding a portion of POG4 South from the 2006 dredge prism. Attachment 2 presents a summary of the April 2006 pre-dredge sampling event, a detailed listing of the April 2006 sampling and poling results, a discussion of proposed no-dredge regions in POG3 South and POG4 South and related measures to refine the POG3 dredge prism. Minor corrections to the POG4 prism were also addressed. Attachment 3 addresses additional poling in Sub-area POG2, a major change to the modeling approach for modeling the POG2 channel, development of the soft sediment model domain, and other modeling details for POG2.

During discussions regarding high sub-grade occurrences in Sub-area POG3, questions about the quality of the GMS-SED model to define the 1 ppm dredge prism were raised by members of the Agencies and Oversight Team. Clarifications on how sediment sampling and poling data were incorporated into the GMS-SED model were addressed in a note attached to this appendix, as follows:

> Attachment 4:
> Fox, R, Berken, G., and Roznowski, D. (2006), "Clarification on Defining Dredge Neat Line Using GMS," Memorandum dated August 7, 2006.

One issue addressed by this memo was how the use of poling data to define the bottom of soft sediment can be error prone when a soft clay layer is present. The pole often protrudes into the soft clay and the model would include the clay as part of the soft sediment model domain, although clay is commonly considered as sub-grade uncontaminated material, not soft sediment. Sampling efforts to improve the resolution of the clay and soft sediment layers were used during the 2006 RA project to better to assess the potential that the dredgers would experience high sub-grade materials (particularly soft clay). High sub-grade occurrences are addressed in Section 4.3.3.