Final Meeting Notes
CRCIP AMT Quarterly Meeting
April 8, 2009

The CRCIP Adaptive Management Team held its quarterly meeting from 9:30 am – 12:30 pm on April 8, 2009 at the Robert Duncan Plaza, Summit Room. The following AMT members, technical support personnel, and invited guests participated in person:

Laura Hicks, COE	Dylan Davis, COE	Agnes Lut, ODEQ
Kim Larson, COE	Ann Friese, WDFW	Steve Bartell, E2 Inc.
Jon Gornick, COE	Kathy Roberts, FWS	
Robert Anderson, NOAA	Tim Sherman, COE	Patty Snow, ODFW
Dale Blanton, ODFW	Mike Ott, COE	Marci Cook, COE
Doris McKillip, COE		

The following topics were addressed by the AMT participants during the January 2009 quarterly meeting:

January 2009 AMT Meeting Notes

The notes for the January 2009 AMT quarterly meeting were approved, pending revision based on comments received prior to and during the meeting. Dale Blanton provided some clarifications concerning remaining ODFW issues with crab entrainment and burial. The revised notes will be marked Final, uploaded to E2 CRCIP web site (www.e2tm.com/CRCIP), and placed in the folder for the January 2009 AMT quarterly meeting.

Project Construction Update

Project construction continues with the removal of sand from CRM 27-32, 48-58, and 62-63. The dredge Oregon is performing this work and completion is anticipated by late April or early May 2009. It is anticipated that Project construction, except for rock removal, will be completed by the end of FY 2009.

Some overwidth work is ongoing as part of Operations and Maintenance. This material is being deposited at the Deep Water Site (DWS). The overwidth work should be completed by the end of September 2009. ODFW expressed concerns about the volume of materials being disposed at the DWS and requested comparison between original Project estimated volumes for the DWS and the actual volume that has been disposed at the DWS as the result of construction.

Mitigation work is also moving forward at the Chumley and Cottonwood Island locations. Site preparation at Chumley includes control of reed canary grass prior to planting of local trees and shrubs. Plant growth will be monitored for three years followed by routine maintenance. A similar approach is planned for Cottonwood with

work beginning sometime in the autumn of 2009. Additional work at Cottonwood will focus on restoration of selected riparian areas.

Rock Removal

Dylan Davis summarized activities regarding rock removal. It was anticipated that the rock removal contract would be advertised by Friday, April 10. Proposals would be due by May 12. Two weeks have been allotted for review of proposals. An award is anticipated for June 2009 with work to begin by mid-September 2009.

Based on input from stakeholders and agency review, the rock removal contract includes specifications pertaining to take limits for salmonids and marine mammals. Several other issues emerged in the development of the contracting language. Smelt might also become an issue with regard to the likely federal listing of this species. The November time frame for blasting might pose risks to smelt, regardless of their listing status. Also, it has been estimated that ~10 adult fish might be killed per blast. If 100 blasts are required, this translates to ~1,000 adult fish. If these fish were entirely endangered salmonids (e.g., chum), this mortality would be considered a significant taking in relation to the BiOp. The timing of trawling in relation to November blasting also raises issues of safety in monitoring the effects of blasting.

Robert Anderson requested that the monitoring plan for blasting be presented at the July AMT meeting. It was further suggested that the eventual contractor be invited to the October AMT meeting to discuss the blasting plan and plan for monitoring potential ecological effects. Alternatively, the October AMT meeting will be rescheduled to November 18th in Kalama in order that AMT participants might visit the blasting sites and observe work in progress, as well as discuss the blasting and monitoring plans.

Dylan will continue to update the AMT regarding progress on rock removal at upcoming AMT quarterly meetings.

AEM Workbook 2rd Quarter Review

In discussing the workbook, questions were raised on how we move forward once CRCIP is completed. Suggestions and questions were made regarding the quarterly meetings and does the AMT continue to meet quarterly, bi-annually, face-to-face annual meetings, teleconference quarterly? The team was asked to think about what the future looked like to them and it would be discussed at the July 2009 quarterly meeting.

MA-1 CORIE Analyses

Available MA-1 CORIE data for temperature, salinity, and depth were analyzed for January and February 2009. Limited depth data were available only in January for the grays station during this period. Grays is the only MA-1 CORIE station that provides

depth data. The monthly average depth for January was 2.0 m, which is within the 20th and 80th percentile decision criteria limits (1.3 – 2.8 m).

Water temperature data were available for January and February for tansy, grays, and cbnc3. Daily median temperatures were less than the 5th percentile decision criteria for several days in late January and mid-February for both grays and cbnc3 stations. Daily temperatures were also low for these periods at tansy, but the values were within the decision criteria for tansy. The monthly average temperatures for both January and February were within the 20th and 80th percentile values defined for tansy. Monthly average temperatures for grays were between the 20th and 5th decision criteria for January and February. The January average for cbnc3 was within the 20th and 80th percentile values. The February mean value was equal to the 5th percentile value defined for cbnc3. The plots of water temperature versus the values reported for the woody station suggest that the available 2009 data are consistent with the pre-Project data for tansy, grays, and cbnc3.

Only February salinity data were available for tansy. The monthly mean salinity of 19.5 psu is within the 20th-80th percentile decision criteria (3.7 – 23.4 psu) developed for tansy. The cbcnc3 station is biofouled and salinity data are not available. The January salinity data for the grays station were less than the 5th percentile decision criteria for approximately half of the month and the corresponding January monthly average was essentially zero psu. Several daily median salinity values exceeded the 95th percentile decision criterion at the grays station during the latter part of February. However, the February monthly average value 1.3 psu was within the 80th and 95th percentile range (0.8 - 2.7 psu). The Desdemona station used as the reference for the normalized salinity plots was not operational during the January and February time frame. Thus, normalized salinity plots were not possible for these two months.

The results of the quarterly MA-1 analysis will be posted in the MA-1 folder of the AEM Workbook on the E2 CRCIP web site.

MA-2 Construction

Dylan Davis (COE) provided an updated summary of Project disposal of construction materials. Upland disposal has not exceeded capacity for any of the disposal locations used thus far. Dylan has modified the upland disposal summary to include recent disposal statistics for contractor beneficial use and disposal at the scour hole. He also separated the previous Northport facility into two separate disposal areas, one of which has been 100% utilized. The revised, updated summaries of project upland disposal will be uploaded to the E2 Project web site and placed in the MA-2 folder in the AEM Workbook.

MA-3 Crossline Surveys

No new additional information concerning MA-3 monitoring was presented at the April 2009 meeting.

Dale Blanton questioned whether bathymetric data defined by MA-3 had been collected at least once during construction to determine the potential impacts on the sediment budget and estuarine habitats. His understanding was the intent of MA-3 to compare pre-construction conditions with data obtained during Project construction and data collected three years following completion of construction. These comparisons would be used within the adaptive management process to decide if there was a need to modify the Project or subsequent maintenance dredging. The OCMP requires the Corps to "report in writing on its findings." Dale noted that the Washington Department of Ecology had similar conditions for sediments, except that the post-project sampling was to be done two years following construction.

There is some confusion concerning whether Dale is actually referring to MA-4. The results of the MA-3 crossline surveys performed during construction were presented at the January 2008 meeting and included in the 2008 Annual Report of the CRCIP Adaptive Management Project. These surveys are performed annually at selected river miles to determine if there has been any erosion/accretion at these locations. In contrast, MA-4 refers more broadly to possible impacts on habitat quality and availability within the river and estuary. However, the MA-4 activity does not include any data collection during Project construction and will only address habitat conditions before and after Project construction.

MA-4 Habitat Analysis

No new information was available for MA-4, but see above comment on MA-3.

MA-5 Sediment Contaminants

See separate sediment agenda item below.

MA-6 Fish Stranding

No new information was available for fish stranding.

Dungeness crab

Dale Blanton asked for confirmation that the OCMP crab conditions (II.a.(i) – (iv)) would apply to operations and maintenance following the completion of the Channel

Improvement Project construction. These conditions primarily address activities to minimize crab entrainment and burial (e.g., use of the crab distribution model to schedule dredging and disposal), restrictions on dredging and flow lane disposal below CRM 17 during periods of high crab abundance, and a crab mitigation strategy. His opinion was that the conditions have been satisfied in relation to Project construction, but indicated that the final OCMP provisions apply to maintenance activities, as well as construction.

Dale cautioned that although there is an ongoing and continuing adaptive management process, state decisions (i.e., 401 and CZMA) are requirements that the Corps must meet. This caution refers not only to crabs, but also to the sediment issues referred to previously (i.e., MA-3 and MA-4 above). It was noted, however, that the new 401 water quality certification does not identify crabs, although the sediment monitoring requirements mentioned by Dale are retained in the current CZMA.

Smelt

Robert Anderson, NOAA/NMFS, reminded the AMT that smelt will likely be listed. There is a low probability that the listing will take effect before the planned blasting in November of 2009.

Sturgeon

See separate sturgeon agenda item below.

Sediments

See separate sediment management agenda item below.

Biocontrol Agent Populations on the Columbia River

Paul Schmidt (COE) presented an assessment of biocontrol agents currently being used in the Columbia River estuary. The current studies focus on the effectiveness of several insects introduced throughout the estuary in controlling purple loosestrife (*Lythrum salicaria*). This work is being conducted by Earth Design Consultants, Inc. Results of this continuing project indicate that populations of several of the biocontrol agents have become established at several locations in the estuary. The agents have demonstrably affected the growth of purple loosestrife at several locations, although the factors that contribute to effective control remain largely unknown. Work to date has also examined the effects of tidal inundation on the survival and population dynamics of the control agents at 15 release sites. Surveys of the distribution and abundance of the control agents and measures of plant damage will continue. Additional work will examine impacts of purple loosestrife on (1) habitat quality for fish and wildlife, (2) nutrient and carbon flux,

(3) sediment quality, and (4) water quality. It is not known whether control of purple loosestrife will permit reestablishment of native vegetation or facilitate success of other invasive plant species that are already present in many of the survey sites.

The presentation will be posted to the E2 CRCIP web site and placed in the AEM Supporting Data folder for Purple Loosestrife Management.

CORIE Station Presentation

Antonio Baptista (CORIE) discussed the operational challenges in maintaining the monitoring stations that constitute the CORIE network in the LCR and estuary. Several of these stations (e.g., tansy, grays, cbnc3, dsdmna, woody) are used in the MA-1 analyses of depth, water temperature, and salinity. Difficulties in maintaining the stations center mainly on funding, staff availability, and safety considerations. As a result, when a station encounters problems, it might require several weeks or more until resources and conditions permit restoration of service. Some problems are of sufficient magnitude as to preclude restoration, for example, cbnc3 is tangled with fishing line and fixing this problem is not likely due to safety issues. The red26 station was physically lost, although a replacement might be located in the near vicinity.

Antonio indicated that it might be possible in some cases to retrieve data that are physically logged into the data recorders at several sampling locations. It might also be possible to reconstruct missing data. However, the quality of the reconstructed data might not comparable to data used previously in the MA-1 analyses. Baptista offered to make raw data available (essentially in real time) for use in the MA-1 analysis. However, these data will not have been processed by CORIE for quality assurance and the AEM Program would have to assume this responsibility. The MA-1 analyses will continue to use the data that are publicly available on the CORIE web site. These data have been processed through the CORIE quality assurance procedures.

Antonio emphasized that CORIE will do all within reason to maintain the operational status of the stations used in the MA-1 monitoring.

Presentation of New Sediment Contaminant Data

Tim Sherman summarized the Corps 2008 sediment quality sampling at the April 2009 AMT meeting. Maps were presented that showed the locations of the separate sampling efforts subsequently described. Characterization of 12 surface sediment samples collected on March 25, 2008 in locations relevant to overwidth areas demonstrated that the sediment quality was consistent with sediments in the Federal Channel. Ten surface sediment grab samples obtained in June 2008 by the USEPA research vessel OSV Bold were determined to be of acceptable quality for in-water placement or beach nourishment. As part of the Columbia River Federal Navigation Channel Characterization, 96 box core samples were obtained in August 2008. Physical analyses

were performed for samples obtained from all locations. Chemical analyses were performed for samples from 23 locations. Analytes included metals, TOC, pesticides, PCBs, chlorinated hydrocarbons, phthalates, PAHs, phenols, miscellaneous extractables, and petroleum. The results of the chemical analysis indicated that the materials obtained within the Channel were suitable for in-water placement. Further characterization will not be necessary for another ten years (i.e., 2018). Twelve samples were collected from six locations within the Chinook Channel on October 21, 2008. Physical analyses showed that sediments from the outer channel were 19.4% sand and 81% fine-grained material. Samples from the inner channel were 1.5% sand and 98.1% fine-grained material. The sediments were chemically analyzed for metals, TOC, pesticides, PCBs, chlorinated hydrocarbons, phthalates, PAHs, phenols, miscellaneous extractables, petroleum, and TBT (only samples from inside the breakwater). Results of the analyses and weight-of-evidence determined the sediments to be of sufficient quality for in-water placement.

The sediment quality presentation will be posted to the E2 CRCIP web site and placed in the AEM Workbook folder for MA-5 Reporting – Sediment Quality.

Regional Sediment Management Framework

Doris McKillip (COE) briefly described regional sediment management activities. An omnibus bill is pending that will provide funds for regional sediment management. The WRDA has been amended to specifically address sediment management. The south jetty project includes sites in the MCR proposal for littoral zone restoration. The sites are located mainly along the Oregon coast. Approximately $450K has been added to the south jetty regional sediment management budget. Other stakeholders interested in regional sediment management include the Lower Columbia Solutions Group (LCSG). The LCSG has been examining potential restoration and replacement sites on the Washington side of the river. There might be as much as $1.7 million in Corps matching funds for beneficial uses of sediments intended for upland disposal. The USEPA has been interested in a regional sediment management plan through its Lower Columbia River and Estuary Program (LCREP) to apply from Bonneville Dam to the MCR.

Mike Ott (COE) will replace Doris in future discussions of regional sediment management.

Finalization of Sturgeon Report

Finalization of the sturgeon report was re-scheduled for the July 2009 AMT meeting.

July Agenda Items

As a result of the April AMT meeting, several items were proposed to be discussed at the July meeting, including:

- The proposed monitoring plan for blasting
- Kim Larson will report on responses to comments on the sturgeon report

The April 2009 meeting adjourned at 3:00 pm.