



Memorandum

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TO: Melissa Thorme, Downey-Brand LLP

CC: Michelle Pla, BACWA

SUBJECT: POTW PCB Monitoring Plan Costs

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Introduction

Larry Walker Associates, under contract with Downey Brand LLP, has prepared a draft POTW PCB Monitoring Plan for BACWA based on discussions with the PCB working group on September 12, 2008. From those discussions, multiple options were evaluated in the design of the POTW PCB Monitoring Plan. These options, and sampling & analytical costs, were discussed in a conference call with the BACWA Executive Board on October 6, 2008. The selected options, as well as the associated costs, are described below.

Decisions for Monitoring Plan

Throughout the draft of the POTW PCB Monitoring Plan, “decision points” were highlighted. As mentioned above, decisions were made and options were selected in a conference call with the BACWA Executive Board on October 6, 2008.

	Description of Final Options
1B	Samples will be collected slightly upstream or downstream of each Permittee’s NPDES permit effluent compliance monitoring point.
2A	The POTWs will collect the samples and arrange for timely delivery of samples to the analytical laboratory.
3A	Samples will be collected as 1-liter (L) grab samples. Samples should be collected at approximately noon on the day of sampling.
4B	The list of PCB congeners, which will be included in the analysis, includes (a) the list of congeners included in the 2008 Regional Monitoring Program (RMP), including all of the dioxin-like PCBs and (b) the entire list of 209 PCB congeners. Separate data summaries will be presented for the shorter RMP list and the list of total PCB congeners.

Program Costs

AXYS Analytical has provided a price of \$975 per sample for this program. Based on this price, and assuming all 16 POTWs collect the four recommended samples, plus the QA/QC samples, AXYS analytical costs will total approximately \$70,200:

$$(\$975 * 16 \text{ POTWs} * 4 \text{ events}) + (\$975 * 2 \text{ QA/QC} * 4 \text{ events}) = \$70,200$$

For the split samples, analytical costs will total approximately \$15,600, based on \$1300 per sample [the quoted price from Vista Analytical], 4 events, and 3 samples per event.

$$(\$1300 * 3 \text{ POTWs} * 4 \text{ events}) = \$15,600$$

Based on the assumptions and estimations above, the total analytical “base” costs will be **\$85,800**.

The decision to use a different sampling location than the normal final effluent station used for NPDES compliance purposes will require extra effort by each POTW. The direct cost to the project would be largely involved in coordination between LWA and each POTW. It is estimated that for OPTION 1B, an additional hour to coordinate with each POTW would be necessary, as well as one hour to verify that the new locations are representative of the effluent [**\$6,000**].

The cost of shipping samples to Canada is estimated at \$200/cooler, which adds **\$12,800** to the analytical costs of the project.

AXYS Analytical has stated there is no difference in the per sample cost for 50 PCB congeners versus all 209 congeners. Minimal additional costs (2 hours per event = **\$1,600**) will be incurred to create separate lists for 50 versus 209 congeners.

LWA will lead the coordination of the monitoring events, including communicating with the POTWs before, during and after the events. Coordination also includes communications with each of the laboratories and Quality Assurance Solutions before, during and after the events. Costs for coordination and data analysis are estimated at **\$14,640** and **\$9,830**, respectively. Overall project costs are summarized below.

Analytical Costs	=	\$85,800
Alternative Monitoring Location	=	\$6,000
Shipping	=	\$12,800
209 Congener List	=	\$1,600
LWA Coordination & Summaries	=	\$14,640
Quality Assurance Solutions data analysis	=	\$9,830
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TOTAL	=	\$130,670