

January 20, 2010 Bay Harbor RSG Technical Work Group Meeting

DRAFT Summary

Attending: Ralph Dollhopf (EPA), Dean Branson (3 Lakes Assn.), Rick Gross (Walloon Lake Assn.), Bob Walker (Bay Harbor Community Council), Bob Wagner (MDEQ), Steve Kircher (Boyne USA), Jennifer McKay (Tip of the Mitt WSC), Rachel Smolinski (LTBB), Tim Petrosky (CMS), Gary Kelterborn (CMS), Ray Bier (Friends of the Jordan River), Denny Brya (Bay Harbor Co.), Scott Kendzierski (Health Dept. NW MI), Brad Garmon, (Michigan Env. Council), Melinda Holland (E²), Krissy Hussell-Hedstrom (E²).

The meeting began with scheduling the next Technical Work Group meeting on Tuesday, February 9th from 1:00 p.m. – 3:30 p.m. at a location to be determined.

As agreed at the January 6th work group meeting, this meeting began with the discussion of three issues for which the work group had requested more information though a strawman draft request.

Reduction of volume of collected leachate

Gary Kelterborn presented information on CMS's efforts to reduce the volume of leachate collected in the East Park area of the site. CMS identified the value of up-gradient ground water diversion early in the project and studied how best to achieve the desired result. They recommended lower-capacity wells placed south of East Park located so as to only capture clean ground water which could then be discharged into the local storm drain system into the lake. Five of these wells have been installed but have not yet been operated. Based on CMS's groundwater modeling results, they recommend a pumping rate of from 15 to 25 gallons per minute (gpm) as optimal for reducing the flow of groundwater into the CKD waste areas. At this pumping rate approximately 170,000 gpd of up-gradient ground water would be diverted. They have also installed sentinel wells between the CKD waste piles and the diversion wells to be able to monitor to assure that the diversion wells are not collecting any contaminants of concern. He stated that CMS views this reduction will be worth the costs of the diversion systems.

He noted that CMS is still in discussions with the regulatory agencies on how to best operate the diversion wells. Agency participants noted that they did not have an opportunity to review the diversion well system prior to its installation, but accept the concept of diversion wells. They are now reviewing the operational details such as sampling of the sentinel wells, the need for and timing of automatic shut-offs, monitoring the quality of the collected ground water, etc. They are not yet sure of the timeline for beginning operation of these wells.

Gary noted that the goal of the diversion system is to flatten the ground water gradient but still keep the flow of ground water going towards the lake. They may use an automatic shut off system based on the head levels in the wells to maintain the desired groundwater flow gradient. In response to a question, he stated that they are currently pumping between 30,000 and 40,000 gpd of leachate at East Park, and based on modeling results the anticipate an 15% reduction in the amount of leachate once the diversion well system is operating.

In response to a question about the need for an additional diversion well on the west side of East Park to avoid having to pump leachate from the Cliffs area, Gary stated that such a well would

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only provide minimal additional reduction in collected leachate. A work group member asked if interim runs of the system had been considered to allow collection of real data, and if the work group could assist with the overall issue in any way. Agency representatives responded that they are considering interim runs, but are still working though some issues such as how and where to accurately measure the effectiveness of the interim run tests. They did not see any assistance that the work group could provide at this point.

Statistical quality control sampling plan

The discussion on the concept of a statistical quality control plan began with work group members clarifying the goal or need that they view could be satisfied by such a plan. Work group members explained that the goal was to be sure that the mercury flux and other sampling is being done at the optimal frequency to generate the best information and data that will be statistically significant. They also noted that they suggested this in hopes that it could lead to a reduction in sampling needed and overall costs. Agency representatives stated that a statistical approach is useful in evaluating long-term compliance monitoring. For the near-term need of mercury flux modeling and approval of the RI/AE documents, the agencies want the full array of seasonal samples that are being collected quarterly. They noted that seasonality of sampling is key to generating representative data. The work group concluded that this issue is in the hands of the agencies and CMS, and requested to be kept informed.

Technical Impracticability Process

The work group's third request for information focused on the application at Bay Harbor of EPA's Technical Impracticability process and MDEQ's 716 appeal process¹. Agency representatives explained that they recognized early that the mercury present along the lake shore is partially captured by the collection systems, but were concerned that mercury is still entering the lake at depths of 30 – 40 feet which is below the effectiveness of the collection systems. They acknowledge the technical/engineering challenge of capturing this mercury and meeting the applicable regulatory standard of 1.3 parts per trillion (ppt) for release of mercury into the lake. Under Section 716(17) of Michigan's regulations, an appeal may be made to the agency director to set aside certain standards such as the one for mercury under the surface water ground water interface criteria. CMS has submitted such an appeal for the entire site to the state and a request to EPA to review a technical impracticability demonstration document. While EPA's Technical Impracticability (TI) determination does not directly apply at the Bay Harbor site because it is not listed as a Superfund site, the state has requested EPA's TI review to help inform the state's review of CMS's Section 716 appeal. MDEQ shared with the work group its letter to CMS dated December 23, 2009 acknowledging the appeal and noting that the agency anticipates a decision regarding the appeal to occur concurrently with the EPA approval of the RI/AE for the site.

Agency representatives stated that the mercury flux data and seasonal sampling will feed into the TI review and the state's decision. In response to a question about the relationship between the

¹ Both of these terms are defined in the Glossary of Terms which was distributed to the RSG at its December 16, 2009 meeting.

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mixing zone approval and mercury flux, an agency representative responded that a mixing zone request cannot be approved for a bio-accumulating contaminant such as mercury. He noted that the goal of the mercury flux analysis is to determine how much mercury is venting into the lake and what can be done with engineering controls at the site to reduce the amount of mercury at the lake shore. A work group member asked if economics is considered in the TI determination. An agency representative noted that economics is considered after they look to see that everything technologically possible has been done to comply with requirements. He also noted that economics is the seventh of the nine decision criteria² for Superfund cleanups. A work group member mentioned that EPA documents provide for 'reasonable cost' and have definitions of what constitutes reasonable cost. An EPA representative noted that they cannot waive protectiveness.

Work group members asked to be kept informed of EPA's TI determination and the states decision on CMS's appeal and how this will tie into the rest of the decision making on the site.

Strawman Draft Document Regarding the East Park RI/AE

Next the work group discussed what to do with the revised draft strawman letter which was developed based on the discussions from the January 6th work group meeting. After some discussion, the work group members decided to ask Jennifer, Rick, Steve and Dean to develop a revised version of the letter which reflected the discussions in today's meeting. The revised letter will be circulated to the full work group for approval before presenting it to the full RSG for its possible approval at the January 27th meeting.

TASC technical advisors

Bob Schrieber of the Schrieber and Yonley consulting firm, joined the work group meeting via conference call to answer work group member's questions regarding his firm's qualifications to support the RSG as a TASC technical advisor. In response to several questions, Mr. Schrieber summarized his experience as including:

- Approximately 60% of the firm's work is for the cement industry including a range of focus areas such as air borne CKD, CKD storage/disposal, and other waste disposal. The remainder of the firm's work includes a range of business, local government, university, industry clients.
- His experience working with stakeholder organizations includes when he was Director of the Air Quality Division for the Missouri environmental agency from 1972 – 1985. He has not worked with multi-stakeholder groups as a consultant. They have also done several rounds of expert witness work for an environmental organization.
- Has worked on issues of mercury in cement kilns, air emissions, and multi-pathway risk assessment.
- They have not done any work regarding mercury in the Great Lakes, but often partners with a PhD toxicologist who has mercury expertise
- His firm has only one biologist

² The nine criteria are defined in the Glossary of Terms which was distributed to the RSG at its December 16, 2009 meeting

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- He has not performed any mercury in groundwater transport analysis, but would be pleased to team with Dr. Hyndman on groundwater modeling issues.
- He was involved with one brownfield redevelopment of a CKD site in Salt Lake City 12 years ago.

After Mr. Schrieber exited the meeting, the work group discussed its impressions and preferences regarding a TASC technical advisor. The work group members discussed some gaps with Schrieber's experience, but did not favor having TASC conduct another search. After the meeting had adjourned, participants in the Bay Harbor meeting room continued discussing the technical advisor issue. Ralph Dollhopf asked if the group would be interested in pursuing Exponent as the technical advisor if the focus of technical tasks were significantly narrowed as a way to reduce costs. Everyone in the room agreed that would be a very good option to pursue. Mr. Dollhopf agree to check with E² Inc. to see if this is possible under the TASC contract.

Work group members suggested that some possible tasks for TASC technical advisors could include an overview of how CKD waste sites have been handled in the U.S. and world-wide, and a review of groundwater issues. Work Group members were asked to develop and circulate (by February 5th) descriptions of possible specific tasks for a technical advisor including a description of the work products sought.

Topics/goals for the February 9th Technical WG meeting:

- Determine if the technical WG wants to recommend any substantive presentations at the February 24th RSG meeting, and if so, which individuals will present.
- Discuss Brad Garmon's proposed draft "Informing the Process: Draft Topics and Timelines for RSG Input"
- Discuss and agree on initial tasks for the TASC technical advisor(s)
- Other work group priorities.

Technical topics and presenters for the Jan. 27 RSG meeting:

- An MDEQ water quality program representative will present information on the NPDES program.
- Bob Wagner will present an update on the status of NPDES and other permits related to Bay Harbor.
- Chair Bob Walker will summarize the January 6th and 20th work group meetings with emphasis on the discussions about the:
 - Reduction of volume of collected leachate
 - Statistical quality control sampling plan
 - Technical Impracticability Process
- Rachel Smolinski will present an overview of the Odawa criteria and interests regarding the Site.
- Revised draft strawman may be submitted for possible approval by the full RSG.