



**Technical Assistance Services for Communities**  
**Contract No.: EP-W-07-059**  
**TASC WA No.: TASC-01-R5**  
**Technical Directive No.: TASC-1**

**December 2009 Bay Harbor CKD Site Regional Stakeholder Group (RSG)  
Meeting Summary**

**Site Name:** Bay Harbor Cement Kiln Dust (CKD) Site  
**Meeting Location:** Bay Harbor Conference Center; Bay Harbor, Michigan  
**Meeting Date:** December 16, 2009  
**Meeting Time:** 1:00 p.m. - 4:30 p.m. EST

Future Bay Harbor CKD Site Regional Stakeholder Group Meeting Times

- Wednesday, January 27, 2010, 1:00 p.m. – 4:30 p.m. Location: Harbor Room, Bay Harbor Conference Center; 4181 Main Street, Bay Harbor, Michigan.
- For calendar year 2010, the RSG will meet on the fourth Wednesday of each month at 1:00 p.m.

## **MEETING SUMMARY**

The list of RSG members attending or absent from the December 16, 2009 meeting is located at the end of this summary.

### **Agenda Item 1: Orientation and Process**

Facilitator Melinda J. Holland, E<sup>2</sup> Inc., called the meeting to order at 1:00 p.m. in the Harbor Room, Bay Harbor Conference Center, Bay Harbor, Michigan. As per the agenda<sup>1</sup>, Ms. Holland welcomed all participants, introduced herself and reviewed the meeting agenda. Ms. Holland invited factual corrections to the November 18, 2009 RSG meeting summary and received none from the RSG members present. Ms. Holland noted that factual corrections could be submitted after the meeting. The RSG unanimously accepted the November 18, 2009 meeting summary. The RSG members then introduced themselves.

### **Agenda Item 2: Work Group Reports**

The RSG's three work groups each met between the November 18, 2009 meeting and this meeting and gave reports on their discussions to the RSG.

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<sup>1</sup> <http://community-plan.net/bayharbor/docs/Bay%20Harbor%20RSG%2012-16-09Agenda.pdf>

Outreach and Education Work Group – Chair Carlin Smith discussed the proposed process for development of an RSG Web site. The work group suggested that the Web site be viewed as an informational tool that can offer a level of transparency on RSG activities to the public. Items such as RSG meeting materials, meeting summaries, RSG reports or recommendations, an RSG membership roster, and meeting schedule and location could be posted on the Web site. Jessica McGeorge (the Chamber of Commerce Executive Assistant and Carlin Smith’s alternate) is currently available to maintain the Web site, if that is acceptable to the RSG. The cost of hosting for the Web site cannot be covered under the TASC contract (approximately \$125-\$200 a year) and the RSG will need to seek alternate funding and be the “owner” of the Web site. Mr. Smith personally offered to oversee the hosting fund. Ms. Holland invited group members to send suggestions for the type of information they would like to see on the Web site to Mr. Smith. Mr. Smith added that suggestions on what should be included or left out of the Web site and content management will be deferred to the administrative committee which is responsible for the development of proposed changes to the RSG’s Operating Procedures. Mr. Smith shared a written summary of the Outreach and Education Work Group meeting.

Policy and Legal Work Group – Jennifer McKay presented the report<sup>2</sup> from the December 10, 2009 Policy and Legal Work Group meeting. She asked that any comments on the site timeline document distributed at the November 18, 2009 RSG meeting be sent to Brad Garmon or Melinda Holland. The work group discussed the fact that the windows of opportunity for the RSG to provide input to the East Park or Development Remedial Investigation/Alternatives Evaluation (RI/AE) are limited. Agency “acceptance” of the RI/AE on East Park is projected to occur in January, and acceptance of the Development area RI/AE is scheduled for spring 2010. An expanded glossary of terms (a prior version was distributed at the November 18, 2009 RSG meeting) was prepared by the U.S. Environmental Protection Agency (EPA) Region 5 and the Michigan Department of Environmental Quality (MDEQ) and was included in the meeting handout packet.<sup>3</sup>

Technical Work Group – Bob Walker, Technical Work Group Chair, presented the Technical work group meeting summary.<sup>4</sup> Mr. Walker also discussed the window of opportunity and timing for possible RSG comments or recommendations for the East Park RI/AE (January 2010) and the Development RI/AE (spring 2010). Current priorities for the work group are commenting on the RI/AE documents, mercury flux protocol and data, permit applications, and disposal of collected ground water. E<sup>2</sup> Inc. is interviewing potential technical experts under TASC for the RSG this week. The technical work group will have the opportunity to provide feedback on top potential candidates in early January 2010. Tim Petrosky and Jennifer McKay reviewed the index of site-related documents provided by E<sup>2</sup> Inc. under TASC to determine those that warranted a short summary for the group. E<sup>2</sup> Inc. will prepare and present executive summaries of the documents identified. Items to be discussed in the next work group meeting are work group priorities, technical impracticability, mercury, and permits. The work group discussed a prior request by an observer to attend work group meetings and decided that in the near term they prefer to only have group members or invited technical experts in attendance at work group meetings.

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<sup>2</sup> <http://community-plan.net/bayharbor/docs/PolicyLegalWG%2012%2010%2009%20meeting%20summary.pdf>

<sup>3</sup> <http://community-plan.net/bayharbor/docs/Glossary%20of%20Terms%2012-10-09%20draft1.4.pdf>

<sup>4</sup> <http://community-plan.net/bayharbor/docs/TECHNICAL%20WG%2012-10-09%20RCW%20mtg%20notes.pdf>

### **Agenda Item 3: Site Legal and Regulatory Framework Presentation and Discussion**

Ralph Dollhopf, EPA, and Bob Wagner, MDEQ, gave a presentation on the legal and regulatory framework for the Bay Harbor CKD site using the glossary of terms (Glossary), the January 11, 2005 letter from MDEQ to EPA Region 5 (2005 Letter), and the EPA Administrative Order on Consent for Removal Action (AOC).<sup>5</sup> They recommended that RSG members read and keep these three documents as reference material. They began by reviewing several key terms in the Glossary.

An RSG member asked for clarification regarding the fact that the site started as a removal action, and when and how it will transition to a remedial action. The agency representatives explained that the transition is outlined in the AOC, which shows EPA as the lead agency for interim response-related activities (under the oversight of the EPA Removal Program) and MDEQ as the lead agency for remedial actions upon EPA approval of the RI/AE reports. They also mentioned that the 2005 Letter outlines the responsibilities of MDEQ and EPA related to the Bay Harbor CKD Site (Site).

Next the agency representatives reviewed the 2005 Letter and explained that when EPA, CMS and Bay Harbor Company engaged in discussions in 2004, CMS immediately began preliminary response activities at the Site. The 2005 Letter outlines what MDEQ's role would be and the scope of the long-term response activities. The 2005 Letter was intended to convey the State's role and position regarding Site cleanup.

The AOC was then reviewed by the agency representatives. They stressed certain sections of the AOC as important for the RSG to read, including:

- Section V, Page 7, which provides useful definitions of terms.
- Section VIII (paragraph 15), Page 9, which describes the work to be performed.
- Section VIII, sub-section x. of paragraph 15, which outlines further response activities to be performed under an agreement to be negotiated between MDEQ and CMS, after approval of the RI/AE reports by EPA.

An RSG member asked how the potentially responsible parties (PRPs) were determined and who are the other PRPs. Agency representatives explained that EPA performed an analysis of who was potentially responsible for the Site, gave Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) notice letters to several parties, and invited them to negotiate an AOC with EPA. The 2005 Letter and the "Findings of Fact" in section IV on page 5 of the AOC list some additional PRPs; however these are not conclusive lists of who may be a PRP. What eventually occurred was a negotiated agreement between EPA and CMS to perform the work because CMS was willing to take responsibility. That does not mean there are not additional PRPs, but for the work in question, EPA was satisfied that CMS was willing and able to conduct the work. If EPA had been

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<sup>5</sup> MDEQ 2005 Letter: <http://community-plan.net/bayharbor/docs/1-11-05%20DEQ%20ltr%20to%20EPA%20R5.pdf>  
Administrative Order on Consent: <http://community-plan.net/bayharbor/docs/AOC%20EPA%20Bay%20Harbor.pdf>

unsuccessful getting an agreement to conduct the work, EPA could have issued a Unilateral Order to anyone determined responsible.

EPA was aware of the agreements among the parties but was most concerned with whether the party who agreed to conduct the cleanup was viable. It was noted by an RSG member that some of the other PRPs had inter-company legal agreements with CMS where CMS agreed to take responsibility for environmental issues that might arise at the Site. The only PRP that MDEQ could identify under Michigan's causation-based legal standard is the party that caused the contamination. At this point there is no PRP under Michigan law. MDEQ has the same interests as EPA in cleanup and is pleased that CMS is willing to perform the work.

An RSG member asked why the mercury standard for drinking water is 2,000 parts per trillion (ppt) when the discharge mercury standard level for cleanup is 1.3 ppt. Agency representatives explained that the state's surface water quality and ground water - surface water interface criteria<sup>6</sup> of 1.3 ppt are based on risk to wildlife. For protection of children and pregnant women from consumption of fish, the criteria for mercury is 1.8 ppt. Mercury bio-accumulates in aquatic organisms, with higher concentrations found in certain fish. Methyl mercury is the most available to concentrate as it moves up the food chain. There are other organic and inorganic forms of mercury. The state standards are based on total mercury (all forms). The drinking water standard is based on direct human consumption of water. Mercury toxicology was mentioned as a possible future presentation topic by a TASC expert or a state toxicologist. An RSG member asked whether the measurement of mercury flux dealt with total volume discharged. Agency representatives replied that while the State regulatory standard is based on concentration, mercury flux measures mass in order to evaluate the total reduction in the amount of mercury discharged to the lake that has occurred as a result of controls implemented. Rule 716, paragraph 716<sup>7</sup> creates a process for appeal to the MDEQ Director when the mercury discharge standard is not achievable. The EPA Technical Impracticability Demonstration is a process by which EPA evaluates whether it is technically practicable for a remedial alternative to achieve cleanup goals. RSG members then asked about the forms of mercury measured in mercury flux. Agency representatives explained that mercury flux measures compounds in aggregate as total mercury and is a commonly accepted technical procedure.

#### **Agenda Item 4: Opportunity for Brief Observer Comments**

Three observers shared comments at this time. One observer commented that methyl mercury in aquatic systems is a fundamental issue to the health of the lake and surrounding residents. Another observer asked for a table for the observers at the next meeting and about the total amount of waste that has been dumped into the Bay since 2005. A third observer brought copies of a periodical featuring articles on Bay Harbor and stated his disappointed at not being allowed to ask questions during the presentations.

#### **Agenda Item 5: Site Technical Presentations and Discussions**

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<sup>6</sup> The laws and regulations containing these standards are attached to the Glossary at: <http://community-plan.net/bayharbor/docs/Glossary%20of%20Terms%2012-10-09%20draft1.4.pdf>

<sup>7</sup> Contained in the Glossary at: <http://community-plan.net/bayharbor/docs/Glossary%20of%20Terms%2012-10-09%20draft1.4.pdf>

*Mercury Flux Protocol Overview* – Bob Walker, Technical Work Group Chair, presented a summary<sup>8</sup> of the Mercury Flux Protocol<sup>9</sup> which was given to the Technical Work Group on December 10, 2009 by Bob Wagner, MDEQ.

An RSG member asked about the ground water zones in East Park. Agency representatives replied that East Park is considered to be one geologic zone but each sampling area (or ‘window’) from the ground water monitoring wells can be viewed individually due to the high level of variability in flow and concentrations of mercury. The protocol accounts for the variability due to different degrees of permeability of bedrock and differing ground water flow rates.

*East Park Remedial Investigation/Alternative Evaluation Overview* – Gary Kelterborn of CMS Energy presented the East Park RI/AE overview.<sup>10</sup> The RI/AE for East Park is being conducted to collect the necessary data on the Site and to evaluate the appropriate remedial actions. Proposed alternatives evaluated in the RI/AE include:

1. No action.
2. Consolidation of CKD, capping, collection of shallow ground water, diversion of ground water, and institutional controls.
3. Same as #2, but without diversion of ground water.
4. In-situ ground water treatment.
5. Total removal.
6. On-site containment.

Mr. Kelterborn noted that the RI/AE proposes to use alternative number 2 above, but nothing has been approved by the regulatory agencies. He also stated that CMS submitted a National Pollutant Discharge Elimination System (NPDES) permit application for discharge of ground water collected from East Park.

An RSG member asked if the treatment building in East Park was currently empty. Agency representatives stated that the building is used as a loading facility and has a pseudo-laboratory. Another RSG member asked if the leachate collection system was collecting at high or low lake levels. Mr. Kelterborn responded that lake levels vary, and that the system is not intended to collect lake water but is situated in bedrock to facilitate near total collection of leachate at various lake levels.

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<sup>8</sup> The Mercury Flux Protocol Overview presentation slides may be found at: [http://community-plan.net/bayharbor/docs/hg%20flux%20model%20protocol%20presentation\(walker\)12-16-09.pdf](http://community-plan.net/bayharbor/docs/hg%20flux%20model%20protocol%20presentation(walker)12-16-09.pdf)

<sup>9</sup> The Mercury Flux Protocol may be found at: <http://community-plan.net/bayharbor/docs/041609%20Hg%20Flux%20Protocal%20Final.pdf>

<sup>10</sup> The East Park RI/AE Overview presentation may be found at: <http://community-plan.net/bayharbor/docs/12-16-09%20RIAE%20Presentation.pdf>

An RSG member then asked if the volume of leachate collected was reduced due to the capping. Mr. Kelterborn responded that volumes should be reduced as a result of the cap and ground water diversion wells, but there will still be a base amount collected. In response to another question, he noted that the volumes of leachate collected range from 35,000 to 45,000 gallons per day.

An RSG member asked about engineering controls, and Mr. Kelterborn explained that they include activities such as the site cover, ground water diversion wells (which are not yet operating), collection trenches and others. He noted that the RI/AE also evaluates several options for disposal of the leachate collected in the trenches, including trucking to treatment, NPDES permitted discharge to the lake, deep well injection, and discharge to the City of Petoskey's wastewater treatment plant. The RSG member asked if there were any effective control or treatment methods in existence that are not being used at the Site. Mr. Kelterborn replied that one method not yet used at the Site is diversion of up gradient ground water; the diversion wells have been installed but are not yet approved for operation. He also explained that an in-situ treatment of ground water technology was tested but did not perform well. He noted that the technologies installed or proposed are ones previously used on other CKD sites and it is possible there are others in existence not yet explored.

An RSG member commented that it is difficult to address recommendations on engineering controls without knowing the goal or regulatory standard for mercury that will be applied at this site. Agency representatives noted they will look at the extent that engineering controls optimize mercury flux reduction until the reductions reach a point of diminishing returns – this is how the Technical Impracticability process works. However, the agencies have not made any decisions on Technical Impracticability or a variance under state law.

Ms. Holland then recommended that the group consider prioritizing which issues of concern it wants to address because there is a short window of time to submit comments or make recommendations. She displayed a list of priorities gathered from the work group meetings and asked how the RSG wanted to address the following items:

- East Park RI/AE: The projected acceptance date for the agencies is January 2010. The agencies will consider RSG recommendations after January.
- Agency View of Priorities for East Park RI/AE:
  - Mercury Flux
  - Engineering Controls
  - Disposal Options for Ground Water
  - Permit Applications
- Development RI/AE (agency acceptance projected for Spring, 2010)

An RSG member suggested that the group use the following order of priority to address the issues:

1. Engineering controls
2. Mercury flux
3. MDEQ Section 716 process
4. Disposal of leachate
5. NPDES permit application

Other RSG members also suggested looking at the total loading of mercury to the lake and the relationship to background levels.

Another RSG member asked whether the various mercury compounds in the discharge or the total amount of mercury was of most concern. Agency representatives responded that the total mercury is the greatest concern and only total mercury is regulated under state law. They stated that due to biological processes that can change the forms of mercury, agencies look at total mercury. An RSG member commented that East Park may not be the best issue for the RSG to develop recommendations because a lot of remediation has already been done and the RI/AE acceptance by the agencies is expected in January. He noted that it would be more constructive to submit recommendations for the Development portion of the site and on other issues such as MDEQ's Section 716 appeal process, deep well permit applications, NPDES permit applications and mixing zone requests.

Another RSG member asked how the RSG should address concerns regarding mercury versus other contaminants of concern (COCs). Agency representatives explained that they have identified the COCs previously appearing at CKD sites such as total dissolved solids, sulphates, silver, chloride, vanadium, etc. The MDEQ representative noted that the ground water surface water interface criteria will apply and that a process exists allowing a request for approval of a mixing zone for a discharge to any surface water body. MDEQ looks at the nature of the receiving water body and the concentrations of substances in the discharge, and determines an acceptable mixing zone size for each contaminant. A mixing zone request cannot be granted for contaminants that represent an acute hazard such as a high pH or are known to bio-accumulate in the environment such as mercury.

Ms. Holland stated that it was discussed that the Technical Work Group could divide its members into two groups to focus on different issues: the East Park RI/AE and the Development RI/AE. RSG members commented that there may be issues outside of these two categories that need to be addressed such as the Technical Impracticability process and the Section 716 appeal process, mixing zone and injection well permits. Some thought that focusing on East Park as a template for the RSG's approach to the remainder of the site could be good; however it is not necessary to break the work group into two groups to do this.

The work groups will further discuss the areas of concern and work group priorities at their January meetings.

### **Agenda Item 6: RSG Operations and Planning**

Ms. Holland announced that Laura Stanek, Bob Walker and Robert Wheaton had volunteered for the administrative committee. All attendees were in favor of approving them as the new RSG administrative committee. Ms. Holland will schedule a meeting of the Administrative Committee in January to discuss the Operating Procedures.

Suggested topics for the January 27, 2010 RSG meeting included:

- Overview of the NPDES Program
- Overview of Underground Injection Control (UIC) Program
- Status of the Deep Well Permit and NPDES permit applications
- Technical Impracticability process
- Comparison of Bay Harbor Site/Releases/Permits/Technology Used at Other Similar Sites
- Brownfields reclamation of similar industrial sites

- Introduction to Odawa Environmental Criteria and Interests
- Additional East Park options and agency perspectives (overview of the position of the agencies on CMS's proposal for East Park)
- Work group reports or recommendations

TASC is identifying technical assistant candidates for Bay Harbor. RSG members commented that an individual with CKD experience would be critical with regards to the comparison between Bay Harbor and previous CKD sites.

New Business – Two RSG members commented the RSG is missing representation of some important stakeholder groups/interests. Ms. Holland responded that under the RSG Operating Procedures, this was an issue for the Administrative Committee and that a recommendation should be made to the Administrative Committee regarding proposed new members. Another RSG member asked what the process was for observer comments to be addressed. Ms. Holland responded that observer comments are added to the summary and directed to the appropriate work group or may be answered at the meeting if appropriate.

Next Steps – The RSG members agreed to meet from 1:00 – 4:30 p.m. on January 27, 2010 at the same location: The Harbor Room, Bay Harbor Conference Center; 4181 Main Street, Bay Harbor, Michigan.

If there is a blizzard or unusually inclement weather, Ms. Holland will confer with Ralph Dollhopf and Bob Wagner to make the decision to cancel potentially affected meetings.

### **Agenda Item 7: Observer Comments**

Five observers made comments at this time. The first observer asked if mixing zones or methods for measurement differed depending on the season. Agency representatives responded that the seasonality is considered. Another observer stated that EPA is now favoring banning mixing zones. Agency representatives replied that a mixing zone is a provision of Michigan regulations and is not an EPA standard. A third observer commented that she was appalled to hear the Technical Work Group's decision to close group meetings to the public. Another observer asked about the mercury flux data collected at East Park. Agency representatives responded that there have been three rounds of sampling thus far and the data would be provided to the RSG at a later date. The final observer comment was that removal of all CKD should be considered as an option for the Site.

### **Item 8: Adjourn**

Ms. Holland thanked attendees for their participation and cooperation. The meeting was adjourned at approximately 4:35 p.m.

**MEETING ACTION ITEMS**

<b>ACTION ITEM</b>	<b>PERSON RESPONSIBLE</b>	<b>DUE DATE</b>
Work with Outreach and Education Work Group to provide TASC support to create a permanent RSG Web site.	E <sup>2</sup> Inc. staff	1/30/10
Schedule a meeting of the Administrative Committee to discuss drafting a Web site protocol, and review RSG Operating Procedures.	Melinda Holland	12/31/09
Provide access under TASC to experts on CKD and other key technical issues such as modeling.	EPA and E <sup>2</sup> Inc. staff	As soon as possible
Schedule work group meetings.	Work Group Chairs and Melinda Holland	Prior to 1/27/09
Under TASC, prepare an executive summary of six key technical documents suggested by the Technical Work Group.	E <sup>2</sup> Inc. staff	As soon as possible
Under TASC, provide a technical expert's review of groundwater modeling and mercury flux modeling.	E <sup>2</sup> Inc. staff	As soon as possible

## MEETING ATTENDANCE

### RSG Members (or alternates) Attending

NAME	AFFILIATION
Ray Bier	Friends of the Jordan
Denny Brya	Bay Harbor Company
Brad Garmon	Michigan Environmental Council
Ralph Dollhopf	EPA Region 5
Gary Kelterborn	CMS Energy
Stephen Kircher	Boyne Resorts/Bay Harbor Golf Club
Gary Knapp	Three Lakes Association
Rick Gross	Walloon Lake Association
Carlin Smith	Petoskey Regional Chamber of Commerce
Jennifer McKay	Tip of the Mitt Watershed Council
Mike Robbins	City of Petoskey
Rachel Smolinski	Little Traverse Bay Bands of Odawa Indians: Environmental Services
Laura Stanek	Antrim County Commission
Bob Wagner	Michigan Department of Environmental Quality
Bob Walker	Bay Harbor Community Council
Robert Wheaton	Resort Township Supervisor
Scott Kendzierski	Health Department of N.W. Michigan
Bill Hicklen	Bay Harbor Community Council (alternate for Joe Sproles)
Don de Blasio	EPA Region 5 Community Involvement Coordinator

### RSG Members Not Attending (or not represented by an alternate)

NAME	AFFILIATION
Tom Foltz	Emmet County
Richard Steel	Star Township

### Observers

Name	Affiliation
JoAnne Beemon	Friends of the Jordan
Barb Bradford	Friends of the Jordan and the POWER Coalition
Dean Branson	Three Lakes Association
David Clink	Petoskey Environmental Advocates
Rebecca Norris	Three Lakes Association
Elaine Pelc	Michigan Department of Environmental Quality
David G. Peterson	Citizen
Mike Robbins	City of Petoskey

Melinda Holland, E<sup>2</sup> Inc. Facilitator, and Tiffany Reed, E<sup>2</sup> Inc. Associate, also attended the meeting.