

# BAY HARBOR PROPERTIES AND EAST PARK UPDATE

DECEMBER 2009



Tip of the Mitt Watershed Council has been actively involved in the remediation efforts at Bay Harbor and East Park since the contamination came to light. We are working to ensure the protection of our Northern Michigan environment, economy, and way of life. The contamination and remediation is highly complex and intricate and has no easy solution. While the involved parties have collected and analyzed significant amounts of data in an attempt to fully understand the situation, additional data is needed in order to come up with the best long-term viable solution. Based upon the information we currently have, we would like to tell you our goals for the remediation efforts, how we are working to achieve those goals, and provide an update of recent activities.

## Our Goals

- Zero Leachate Entering Lake Michigan
- Safe Treatment and Disposal

The Watershed Council would ideally like zero CKD leachate entering Little Traverse Bay through various prevention and collection methods along with safe treatment and disposal of collected leachate that meets all water quality standards.

### PREVENTION - Prevent leachate from forming

To attain the ultimate goal of zero CKD leachate entering Lake Michigan, a reduction in the volume of leachate created is vital. This can be accomplished by:

- Removal of CKD in appropriate locations
- Diversion of ground water before it comes in contact with cement kiln dust
- Capping of appropriate CKD piles to prevent surface infiltration of water

### COLLECTION - Collect what leachate cannot be prevented

100% of leachate produced needs to be collected before entering Little Traverse Bay.

### TREATMENT AND DISPOSAL - Treat and dispose leachate to meet water quality standards

All collected leachate is treated and disposed of safely meeting water quality standards to ensure the CKD leachate will not pose threats to the surface and ground water resources of Northern Michigan. We do not support dilution as the sole treatment method for collected leachate. Treatment and disposal technologies are constantly evolving and emerging. The Watershed Council will be here for the long term to ensure that the most appropriate best available technologies are encouraged now and in the future.

## Tip of the Mitt Watershed Council: Working to Protect Our Waters

Tip of the Mitt Watershed Council has been actively involved with this issue for many years through a variety of means. While the public may only see a snapshot of our involvement, we have been and are highly engaged in the remediation efforts on a weekly, if not daily basis, through a multitude of actions such as:

- Reviewing all pertinent documents
- Providing comments, concerns, recommendations, other ideas on the process to decision makers
- Requesting additional studies and data collection when necessary
- Participating in permit application processes
- Researching and evaluating potential remedial options
- Communicating regularly with all the involved parties
- Educating our members and the public
- Holding the involved parties accountable
- Providing assistance to other organizations and entities that wish to participate in the process
- Acting as a conduit for information exchange between those involved and the public

The regulators and other stakeholders respect our involvement and include us at many levels of decision making. The Michigan Department of Environmental Quality, U.S. Environmental Protection Agency, and CMS, and others respond to our comments and suggestions and we see results from our involvement. Through these activities and more, the Watershed Council is working to ensure the remediation is done properly and thoroughly.

## Status of Interim Remediation Efforts at Bay Harbor Properties and East Park

### DATA COLLECTION

- CMS is continuing data collection within the Bay Harbor Properties and East Park that will be used to design a long-term solution.
- The data is used to evaluate chemical and physical properties of the cement kiln dust and ground water flow which produces the leachate.
- In particular, modeling and data collection to measure the concentrations of mercury and other contaminants is underway.

*(Continued on the back)*

## BAY HARBOR PROPERTIES

- CMS has installed approximately 2,800 feet of collection lines along the shoreline in front of Bay Harbor properties
- The EPA ordered CMS to augment three areas with continued releases of high pH leachate to improve the effectiveness of the interim recovery system.
  - At the east end, a barrier wall was installed to redirect the leachate into the collection line preventing it from reaching Lake Michigan.
  - In the central area, referred to as Pine Court, a targeted well to collect leachate was installed in the golf course.
  - In the west end, approximately 10,000-13,000 cubic yards of CKD and soil were removed from the beach.
- A Remedial Investigation and Alternatives Evaluation document outlining the results of data collection and potential final remedies was submitted to the regulators on July 31, 2009.

## VILLAGE HARBOR

- Removal actions in the southwest corner were completed in October of 2008.
- A 400-foot stretch of CKD and leachate accumulation along the bottom of the boat channel of Village Harbor Lake was capped.

## EAST PARK

- CMS completed interim activities including relocation of the eastern most portion of CKD, installation of a collection line along the shore, and installation of a liner over the CKD to prevent surface infiltration of water.
- CMS also installed upgradient ground water diversion wells to prevent ground water from coming in contact with the CKD, but these wells are not operational at this time.
- Upon the Watershed Council's suggestion, CMS installed a stormwater management feature, the Downstream Defender, with Resort Township generously accepting responsibility for future maintenance of the feature.
- Regulators are still evaluating the long-term solutions proposed by CMS for East Park and, to date, a final remedy has not been approved.
- East Park reopened to the public in June of 2009.

## DISPOSAL OPTIONS

- CMS is currently disposing of collected leachate at a deep injection well outside of Johannesburg and at the Grand Traverse Septage Plant and Waste Water Treatment Plant.
- CMS is seeking local disposal options including a deep injection well in Emmet County, on-site treatment and discharge to Little Traverse Bay, and disposal via the Petoskey Waste Water Treatment Plant.

## DEEP INJECTION WELL

- On February 7, 2008, EPA and MDEQ approved a permit for a deep injection well in Star Township, Antrim County. While the Watershed Council did not oppose approval of the permit for the deep injection well, we still have concerns with respect to additional financial assurances and prohibiting the injection of leachate that has not been treated to lower the pH.
- We believe other test wells can and should be drilled to determine if suitable geologic formations exist, thereby, ensuring all potential alternatives are adequately evaluated.

- CMS has submitted a permit application to the DEQ for a deep injection well in Emmet County. CMS will also need to submit a permit application to the EPA as well.
- The Watershed Council will review the permit application to determine if the proposed injection well is sound scientifically, complies with current regulatory standards, and avoids and minimizes adverse impacts to surface and ground water. This will entail looking at aspects such as technical integrity of the well, geology, natural resource surface features, monitoring and reporting requirements, financial assurances, zoning, etc.

## DISCHARGE OF TREATED LEACHATE TO LITTLE TRAVERSE BAY

- CMS has applied to the MDEQ for a National Pollutant Discharge Elimination System (NPDES) permit under the federal Clean Water Act to discharge leachate to the surface waters of Lake Michigan specific to East Park. In order to meet the surface water quality standards, CMS is proposing to dilute the leachate with uncontaminated water.
- It is expected that CMS will apply for another NPDES permit specific to Bay Harbor Properties. It is likely that this application will include treatment of leachate that would reduce the quantities of chemicals of concern and heavy metals such as mercury, but it will likely be unable to lower concentrations enough to meet current surface water quality standards and, therefore, require a variance.

## DISPOSAL VIA PETOSKEY WASTE WATER TREATMENT PLANT

- Discussions have been ongoing between CMS and the City of Petoskey regarding the possibility of disposing of collected leachate at the Petoskey Waste Water Treatment Plant (POTW).
- The Watershed Council believes that this disposal option may be an environmentally viable option that should be further pursued.

## REGIONAL STAKEHOLDER GROUP

- A Regional Stakeholder Group has been established, with financial assistance from EPA's Technical Assistance Services for Communities (TASC) Program to represent the interests of the communities and stakeholders, to receive and share information, and to provide advice and input regarding the remediation of the Bay Harbor/Little Traverse Bay Cement Kiln Dust Site.
- The Watershed Council is serving as a member of the Regional Stakeholder Group.

## LONG-TERM SOLUTION

- As for the long-term final remedy to address the contamination, the Watershed Council believes the solution will have to be a multifaceted approach incorporating a combination of activities.
- The Watershed Council wants to see a full evaluation of all alternatives and treatment technology options to achieve the best outcome for the water resources and citizens of Northern Michigan.

*Tip of the Mitt Watershed Council will continue to monitor the situation closely, working with the involved parties to ensure that the remediation is done properly and thoroughly to protect public health and environmental quality. If you have any questions, please feel free to contact Jennifer McKay at the Watershed Council at 231-347-1181 or by email at [jenniferm@watershedcouncil.org](mailto:jenniferm@watershedcouncil.org).*