

DRAFT Bay Harbor Properties and East Park CKD Site Timeline

1921-1955 - Petoskey Portland Cement Company operates a cement factory that generates CKD.

1955 - Penn-Dixie Industries, Inc. acquires Petsokey Portland Cement and continues cement manufacturing operations.

1980-81 – Penn-Dixie filed for bankruptcy and ceased cement manufacturing operations. Dundee Cement Company acquired Penn-Dixie's plant and property in Resort Township as part of the bankruptcy sale. Dundee operates a distribution facility but does not manufacture cement at this location.

October 12, 1980—Congress enacts the Solid Waste Disposal Act Amendments of 1980 which amends the Resources Conservation and Recovery Act (RCRA). Among the amendments was the Bevill Amendment which temporarily exempts cement kiln dust from hazardous waste regulation until further study can be completed.

1988 - The Michigan Department of Natural Resources (MDNR), now Michigan Department of Environmental Quality (MDEQ), received citizen complaints about reddish colored seepage entering Little Traverse Bay from the base of two cement kiln dust (CKD) piles located on the site.

1989 - Dundee Cement Company sold a portion of the land to Bay Resort Properties Ltd.

June 15, 1989 - The MDNR granted a Designation of Inertness for the CKD located on the property.

June 20, 1989 – An investigation showed detectable concentrations of arsenic, chromium, copper, lead, nickel, selenium, and zinc, but MDNR analysis of the CKD indicated that it was not capable of releasing heavy metals at concentrations of concern.

1990 – In a merger Dundee Cement Company became Holnam, Inc.

1990 – Michigan's Environmental Response Act of 1982 (P.A. 307) is amended to facilitate cleanup of contaminated sites and to encourage redevelopment.

1990 - Remainder of Site sold to Bay Resort Properties Limited Partnership.

July 21, 1992 - The Land Reclamation and Improvement Authority Act is enacted in Michigan to allow large tracts of blighted land to be cleaned up and privately developed with the help of tax free bonds. The impetus for this legislation was Three Fires Pointe, the first of many proposed developments for the land along Little Traverse Bay.

1993 - Bay Harbor Company teamed up with CMS Land Company, a subsidiary of CMS Energy, to develop the site.

July 11, 1994 – Pursuant to Section 14 (a) of P.A. 307 as amended in 1990, a Covenant Not to Sue was negotiated and signed by Bay Harbor Company, CMS, Boyne USA, and the State of Michigan. The document provided protection from liability for interests under State of Michigan jurisdiction but did not impact federal obligations.

1994 - Redevelopment of the site was initiated pursuant to previous contamination-related agreements with the state MDNR (e.g. Designation of Inertness and Covenant Not to Sue) and approvals by other applicable governmental agencies (building permits, wetland permits, shoreline riprap, city sewer, etc.)

1995 – Michigan's newly re-codified cleanup statute (Now Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451) was amended to narrow liable parties to those "responsible for an activity causing a release or threat of release".

1995 – The eastern portion of the Site was transferred to Resort Township for development of the park (East Park).

1997 - A CKD seepage collection line (Edge Drain) was installed at what is now Seep 2.

2003 - CMS constructed a pre-treatment plant to adjust the pH of the CKD leachate collected and the treated leachate was then delivered to the City sewer by a newly constructed discharge line.

January 2, 2004 - Due to complications that caused the plugging of a line within the treatment facility, the facility was shut down allowing leachate to drain directly into Little Traverse Bay.

August 17, 2004 – During a routine inspection at the Petoskey Wastewater Treatment Plant, the MDEQ determined that leachate had not been collected since January.

September 3, 2004 - Based upon investigations of leachate discharges into Little Traverse Bay, officials from the Northwest Michigan Community Health Agency issued a Public Health Advisory instructing people to avoid certain areas near the shoreline along Bay Harbor, two to three miles west of the Village and Marina.

September 30, 2004 – US EPA convened a meeting regarding the Site including regulatory agencies, the Tribe, and Potentially Responsible Parties (PRP) as identified under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund.

December 3, 2004 - Health Department officials issued a Public Health Alert for a second stretch of Bay Harbor shoreline approximately one-half mile west of the outlet of Harbor Lake to Lake Michigan, near the Bay Harbor Golf Club.

February 22, 2005 - An agreement was reached between the US EPA and CMS; the Administrative Order on Consent (AOC) required CMS to take immediate steps to control releases from the cement kiln dust piles.

March 24, 2005 - Following review of laboratory analyses of samples collected by the U.S. EPA, the Public Health Advisory was extended to include East Park.

April 18, 2005 - The Public Health Advisory was extended to encompass another stretch of shoreline adjacent to a third cement kiln dust (CKD) pile located just west of the Bay Harbor golf clubhouse.

July 28, 2005 – U.S. EPA approved Final Removal Action Work Plan for site.

February 15, 2006 - Removal Action Investigation/Remedial Investigation Report and Feasibility Study East CKD Area Revision 0.0 submitted by CMS.

April 28, 2006 - Officials from the Northwest Michigan Community Health Agency issued a new Public Health Advisory for Village Harbor Lake entry channel.

April 2006 – Leachate discovered in Village Harbor area.

May 2006 – Initial Bay Harbor Lake Assessment conducted.

July 31, 2006 - Public health officials canceled one of the Health Advisories at Bay Harbor for a 2,800-foot stretch of shoreline located six tenths (.60) of a mile west of the Bay Harbor Lake entry channel.

August 17, 2006 - Removal Action Investigation/Remedial Investigation Report and Feasibility Study East CKD Area Revision 1.0 submitted.

June 2007 – Assessment Report for Bay Harbor Lake released.

November 29, 2007 – U.S. EPA orders augmentation for three areas of the interim recovery system that are determined to be ineffective according to results from effectiveness monitoring.

February 7, 2008, EPA and MDEQ approved a permit for a deep injection well in Star Township, Antrim County.

March 1, 2008 - Removal Action Investigation/Remedial Investigation Revision 0.0 and Alternatives Evaluation Revision 0.0 for West, Seep 2, Seep 1 CKD Areas submitted.

June 4, 2008 - Removal Action Investigation/Remedial Investigation Report and Feasibility Study East CKD Area Revision 2.0 submitted.

July 1, 2008 - Public health officials issued a revised Public Health Advisory with access restrictions at Seep 1 being reduced from 1,800 feet of restricted shoreline to 930 feet

October 2008 – Seep 1 augmentation completed; a barrier wall was installed to redirect the leachate into the collection line preventing it from reaching Lake Michigan.

November 2008 – Removal actions in southwest corner of Village Harbor completed.

May 2009 – Pine court augmentation completed; targeted collection well installed under golf course operational.

May 2009 – West CKD augmentation completed; approximately 10,000-13,000 cubic yards of CKD and soil were removed from the beach, replaced with clean fill, and a new collection line was installed.

May 2009 – Cap on approximately 28,000 square feet of lake bottom in Village Harbor completed.

June 18, 2009 - Public health officials downgraded the Public Health Advisory at East Park authorizing the removal of existing fencing and signage and reducing the Public Health Advisory to a notification.

June 20, 2009 – East Park reopened to the public after 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.

July 31, 2009 – Removal Action Investigation/Remedial Investigation Revision 1.0 and Alternatives Evaluation Revision 0.0 for West, Seep 2, Seep 1 CKD Areas submitted.

July 31, 2009 – Groundwater Modeling Report for West, Seep 2, Seep 1 CKD Areas Revision 0.0 submitted.

August 31, 2009 – Alternatives Evaluation Report – East CKD Area Revision 3.0 submitted.

August 31, 2009 – Technical Impracticability Demonstration: Groundwater Restoration submitted.

October 29, 2009 – Bay Harbor CKD Regional Stakeholder Group is formed.