



Public Involvement Meeting for the Bird Machine Co. Property

Presented by Baker Hughes Inc. and
AMEC Environment & Infrastructure, Inc.

July 31, 2012



Baker Hughes, Environmental Affairs

- Chris Clodfelter, Project Manager (713.439.8329)
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AMEC

- Kim Henry, Licensed Site Professional #7122 (978.392.5334)
- Marc Grant, Project Manager (978.392.5330)

Purpose of Tonight's 9th PIP Meeting



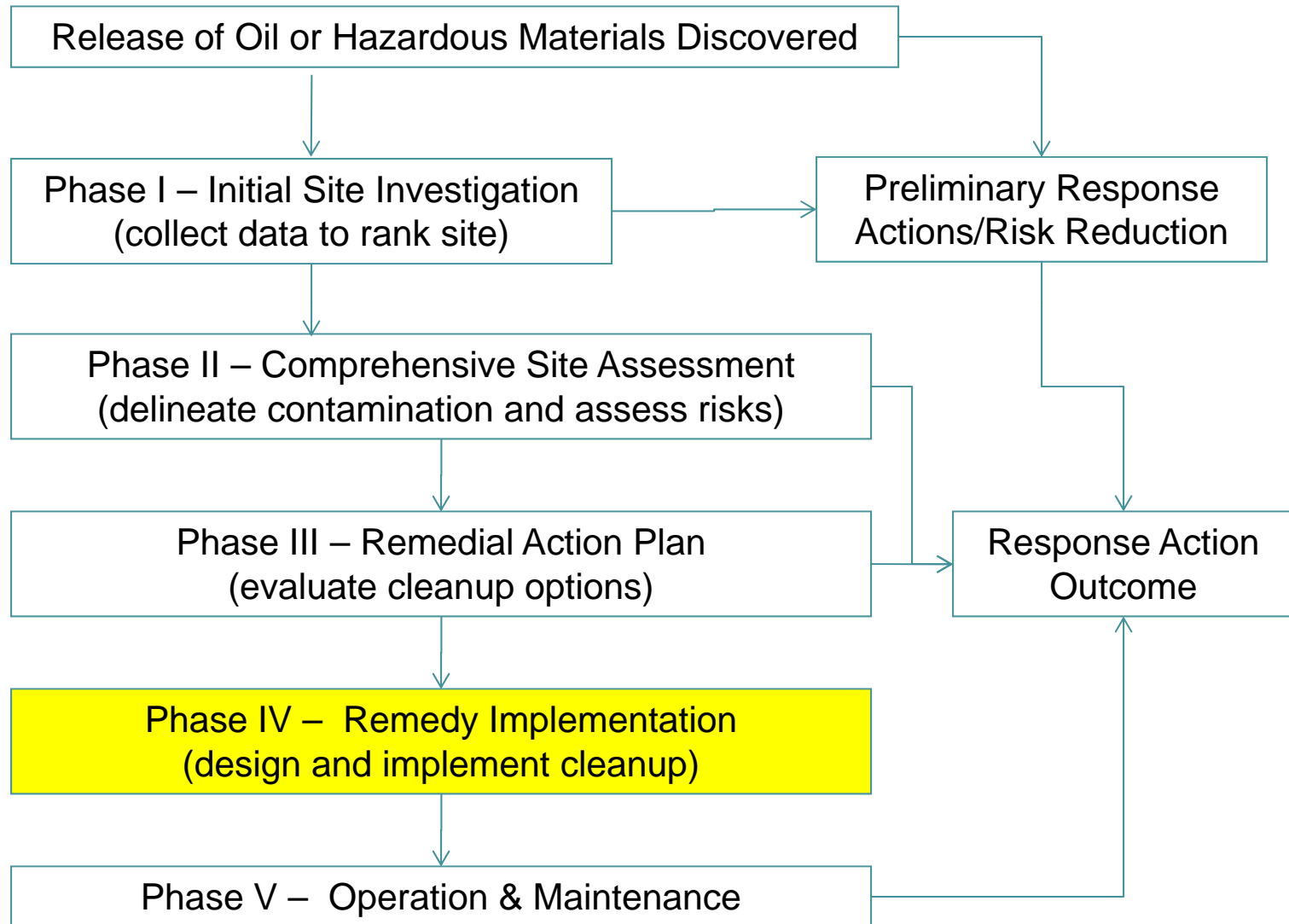
- We're here to:
 - Provide an accurate picture of environmental status
 - Listen to community concerns and questions
 - Inform you of plans for future site use
- Extensive Voluntary Remediation to date demonstrates our commitment to protect:
 - Community Health and Safety
 - The Environment
- Project Funding is about \$9 Million

Agenda for Tonight's Meeting



- Review Recent Activities
- Summarize the recent Draft document and receive comments from the Public
 - Phase IV Final Inspection Report
- Discuss Future Activities and Opportunities for Public Involvement

Status of the Site within the Massachusetts Contingency Plan Process



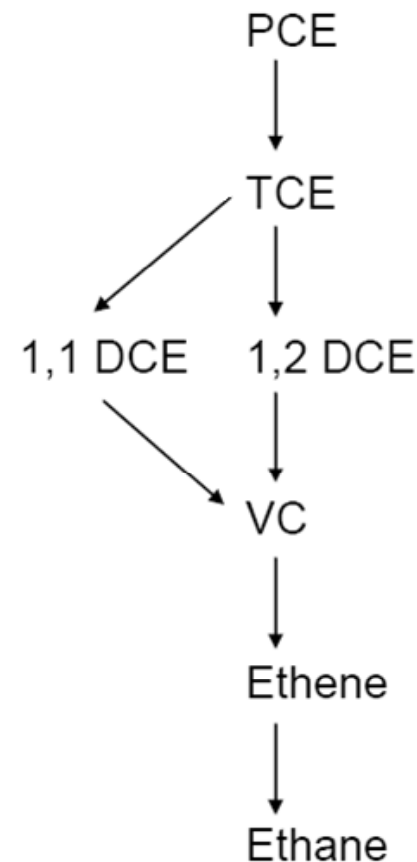
Understanding of extent at time of Phase II report

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- The map displays the Ruckabuck Pond area with various monitoring wells and numbered zones. The pond is on the left, the golf course is in the center, and the residential area is on the right. Numbered zones (1-8, 20, 22, 23) are outlined in yellow and orange. Monitoring wells are marked with red dots and labels like NP-MW-403, NP-MW-301, MB-MW-371, etc. A green line outlines a specific area in the upper left.

- DCB > MMCL
- Arsenic > MMCL
- cVOCs > MMCL

A Phase III Remedial Action Plan for Site groundwater was completed in December 2011

- Monitored Natural Attenuation (MNA) was selected as a feasible remedy for achieving a “Permanent Solution”
- In MNA, compounds break down via physical, chemical and biological processes that occur naturally in the aquifer
- Primary MNA processes are expected to be physical (dilution of arsenic) and biological (breakdown of chlorinated volatile organic compounds).



Recent Activities – Response Action Outcome, December 2011



A Class C-2 Response Action Outcome (RAO) was achieved in December 2011 for RTN 4-3024222

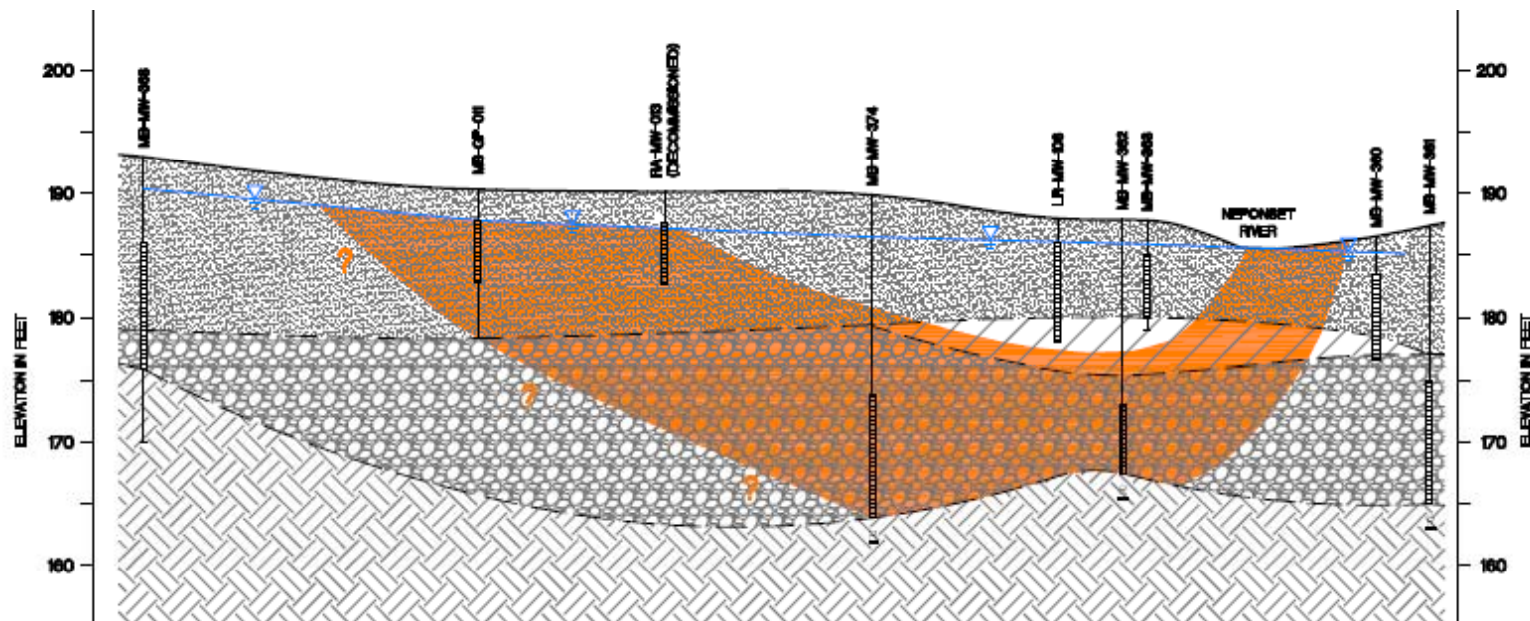
- No Substantial Hazard exists and a “Temporary Solution” has been achieved
- A “Permanent Solution,” which requires that drinking water standards be achieved pursuant to Walpole bylaws, will require remedial action
- Remedial action will consist of “Active Remedial Monitoring Program”
- Five other RTNs were closed during 1992 – 2005, and RTN 4-3024222 is the last unclosed RTN at the property

Recent Activities – Phase IV Remedy Implementation Plan, March 2012



Remedy Implementation Plan (RIP) included:

- Design of Selected Remedy
- Conceptual Site Model
- Investigation program to confirm the conceptual site model



Conceptual Site Model presented in the RIP

The RIP outlined a 2-step investigation program to confirm the conceptual site model

- A Geoprobe and Mobile Laboratory were proposed to provide real-time data to optimize further plume delineation
- Installation of conventional Monitoring Wells
 - Shallow, deep and bedrock wells focused along plume centerlines and near discharge areas
 - Additional wells along plume perimeter

- Provides results of field investigation performed since March 2012:
 - Mobile laboratory results from Geoprobe samples (April 23 - May 4)
 - Installation of conventional Monitoring Wells (June 4 - June 13)
 - Initial groundwater monitoring event (“initial process monitoring”) (June 19 - July 3)
- Present updated Contaminant Extent and Conceptual Site Model
- Refine the Operation, Maintenance and Monitoring Plan

Mobile Laboratory Results from Geoprobe Samples



- Additional sampling locations have refined the plume areas
- Size of dot at sampling location is proportional to the concentration detected in groundwater.
- Based on the expanded data set, areas where contaminant concentrations exceed Drinking Water Standards are smaller than the areas delineated in Phase II.

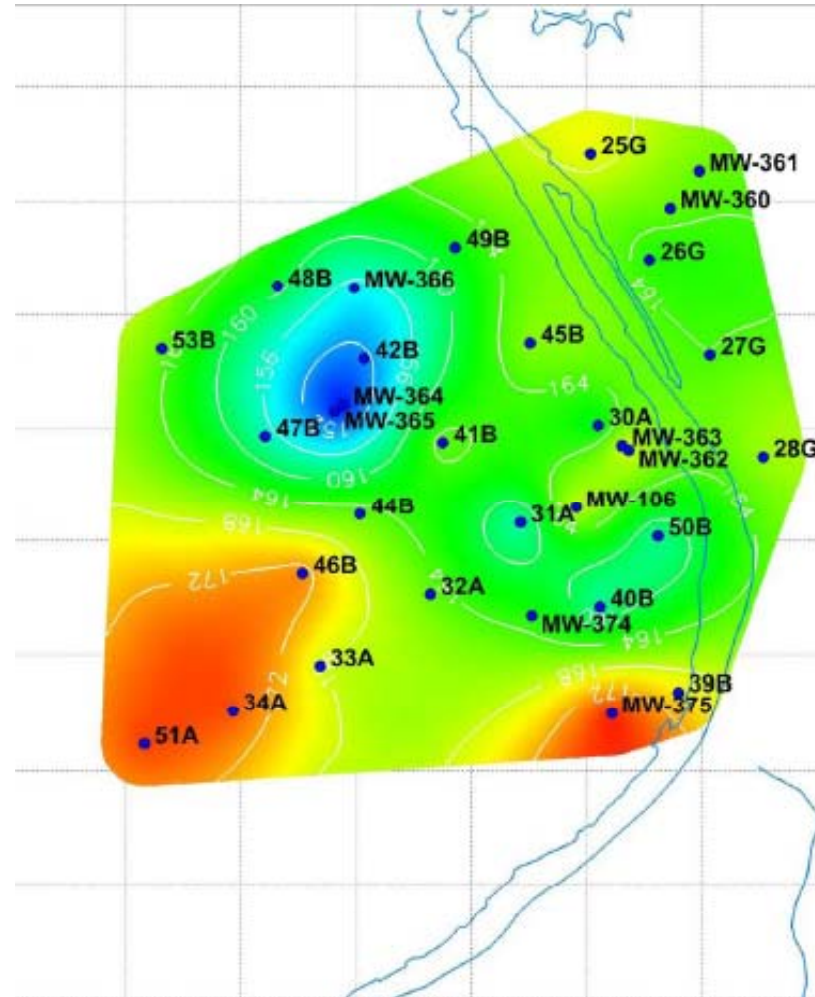
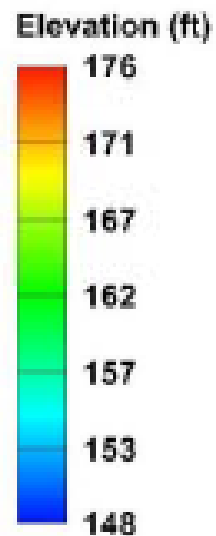


Extent of Contamination Lines
— DCB > MMCL
— Arsenic > MMCL
— cVOCs > MMCL

Other Data from Geoprobe Sampling



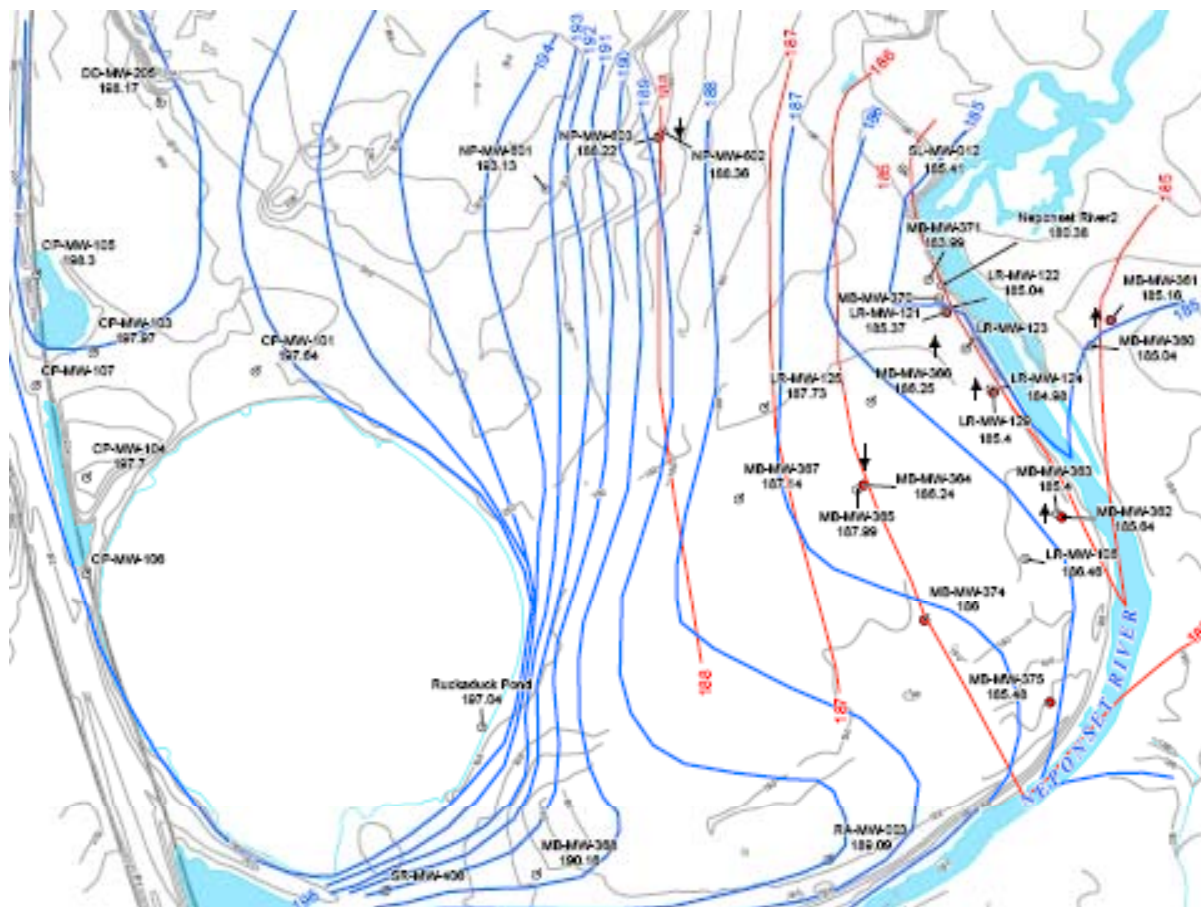
Data on depth to bedrock confirmed previous understanding of Bedrock Topography



Other Data from Geoprobe Sampling



Groundwater Elevation Data confirmed previous understanding of Groundwater Flow Direction



GW Contour Map
April 30, 2012

— Deep Groundwater Contour
— Shallow Groundwater Contour

Installation of Conventional Monitoring Wells



New wells installed included:

- 6 shallow wells
- 16 paired shallow and deep wells
- 3 deep wells
- 3 bedrock wells

Extent of Contamination Lines

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- Arsenic > MMCL
- cVOCs > MMCL



Initial Process Monitoring and Contaminant Extent

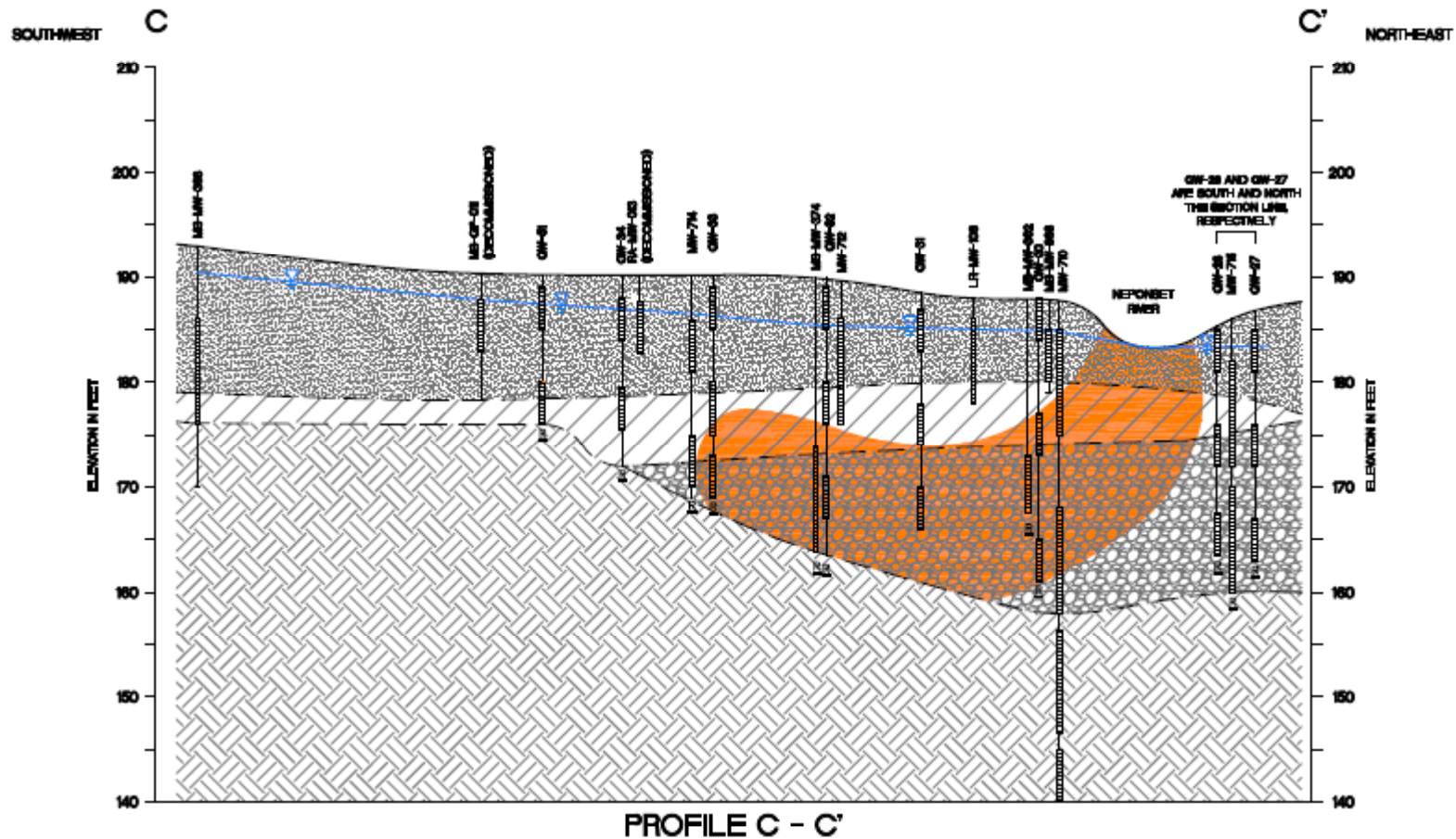


Well Network for Remedial Monitoring Program will consist of:

- 42 water quality wells
- 19 additional water level monitoring points



Confirmation of Conceptual Site Model



- **Monitoring Network Design and Operation**
 - Sampling methods and locations
 - Analytical parameters
 - Water-level measurements (also following storm events in first year)
- **Evaluation of Effectiveness**
 - Declining contaminant concentrations
 - Reduced plume size
 - Conditions favorable to degradation processes
- **Revisions and Contingency Remedies**
 - Revise approach if it appears that drinking water standards/background levels will not be achieved within 10 years
 - Plan identifies types of conditions that if encountered would indicate possible need for other remedies

- Summary of the Presentation
 - Recent Activities
 - Draft Phase IV Final Inspection Report
- Next Steps
 - Public Input on this Draft Document and prepare Final version
 - Begin Phase V Operation, Maintenance, Monitoring (August +)

**Please Provide Comments by
Monday August 6, 2012 to:**

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