Public Involvement Meeting for the Bird Machine Co. Property

Presented by Baker Hughes Inc. and
AMEC Earth & Environmental, Inc.

December 6, 2011

Presenters and Project Personnel

Baker Hughes, Environmental Affairs

- Chris Clodfelter, Project Manager (713.439.8329)
- Dina Kuykendall, Director of Environmental Affairs (713.439.8789)

AMEC

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

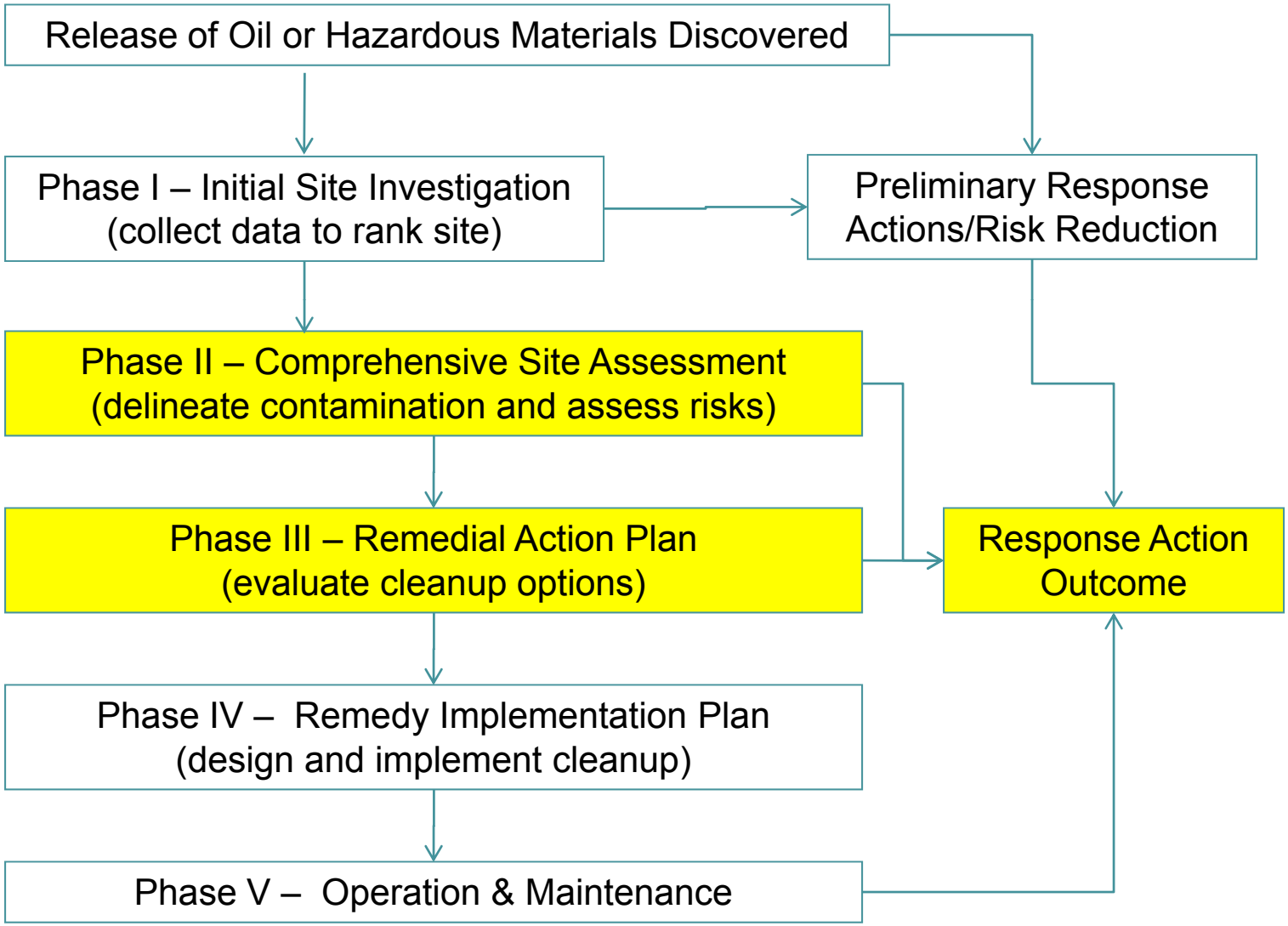
Purpose of Tonight's 7th PIP Meeting

- We're here to:
  - Provide an accurate picture of environmental status
  - Listen to community concerns and questions
  - There are no plans for future site development
- 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 documents and receive comments from the Public
  - Phase II Comprehensive Site Assessment Addendum for the Demolition Debris Area
  - Response Action Outcome Statement for the Site
- Review Results of Ecological Services Assessment
- Discuss Future Activities and Opportunities for Public Involvement

Massachusetts Contingency Plan Process



Recent Activities outside the Demolition Debris Area (DDA)

- A Phase II Comprehensive Site Assessment for the Site apart from DDA (including Manufacturing Building Area, Lead Release Area 3, and South Rail Spur) was completed in October 2011
  - Source remediation has achieved a condition of No Significant Risk for soil, sediment, and surface water
  - The potential risk posed by site groundwater will be addressed
- A Phase III Remedial Action Plan for Site groundwater exceeding drinking water standards (not within DDA) was submitted in October 2011 and response to comments is underway
  - Monitored Natural Attenuation was selected as a feasible remedy
  - Town concerns with protecting water supplies will be addressed during remedy design and implementation (Phases IV and V).
    - The Town's nearest supply wells are approximately 1.2 miles northeast of site contaminants

Recent Activities for the Demolition Debris Area (DDA) and the entire Site

- Additional testing of DDA soil and groundwater has been conducted to allow completion of Risk Characterization (RC) that was started in the 2007 Comprehensive Site Assessment (CSA)
  - The 2007 RC did not include asbestos or environmental receptors
  - Groundwater sampling continued between June 2007 and May 2008 to provide additional data, as requested in comments on the 2007 CSA
- The Draft Phase II CSA Addendum for DDA, and Response Action Outcome Statement for the Site, were submitted in November 2011 and are the subject of tonight's presentation
- A voluntary Ecological Services Assessment has been completed for the Property

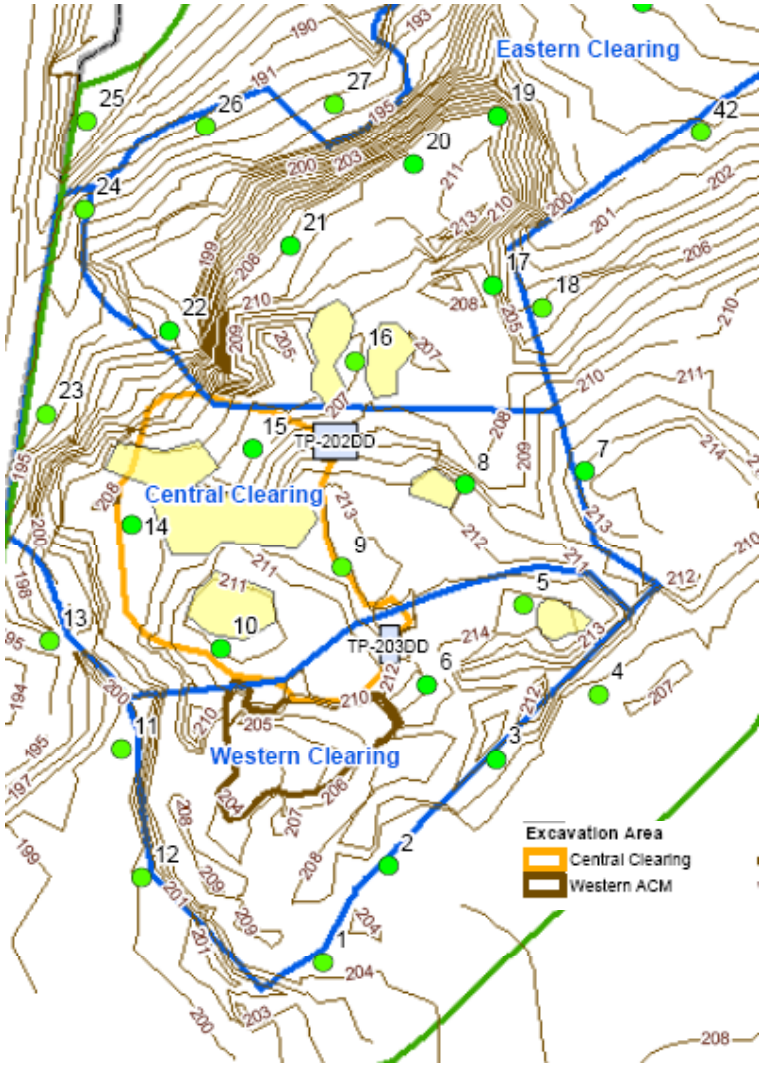
Scope of the Phase II CSA Addendum for Demolition Debris Area

The Phase II Addendum provides an update to the 2007 Comprehensive Site Assessment (CSA) based on the latest data

- 3,300 tons of soil and asbestos were removed in 2005 during Release Abatement Measures
- Asbestos sampling conducted in 2011 to supplement earlier results
- Groundwater data from 2007-2008 were compared to earlier results
- Risk Characterization for Human Health and the Environment

DDA Soil Results (2011)

- Soil testing for asbestos was conducted at 42 locations
  - Depths of 0-3 and 3-24 inches
  - Analysis by Polarized Light Microscopy, Transmission Electron Microscopy, and Elutriator Method
- Asbestos detected at one location near the 2005 soil excavations
  - >1% in surface debris and 0-3” soil
  - <1% in 3-24” soil
- Risk Characterization based on highest levels of asbestos finds No Significant Risk through inhalation



DDA Groundwater Results

- Groundwater sampling in June – July – December 2007, and May 2008
  - 9 wells within, upgradient, and downgradient of the DDA
  - Analysis for metals and organic compounds
- Results confirm detections below drinking water criteria as described in the 2007 CSA
  - metals (mainly barium, chromium) appear to be declining
  - Polynuclear Aromatic Hydrocarbons (PAH) detected sporadically

DDA Risk Results

- A Risk Characterization (RC) was performed for the DDA fill area
  - Assumes a legal restriction to prohibit future residential use or soil disturbance of the exposure area
  - This Method 3 RC replaces the Method 1 RC presented in 2007
    - 2007 RC did not address asbestos (no standards) or Environmental Receptors
- Potential Exposure Scenarios
  - Human exposures to current or future trespassers
  - Future hypothetical groundwater use for drinking water
  - Environmental (mammal and bird) exposures
- A condition of No Significant Risk is demonstrated for Human Health, Public Welfare, Safety, and the Environment

Summary of DDA Phase II CSA Addendum

- Soil and Groundwater data collected for the DDA after the 2007 CSA are presented and evaluated
  - Additional asbestos testing was completed and data were used for risk characterization
  - Metals and sporadic PAH detections below drinking water standards were confirmed in groundwater
- Potential Risks to Human Health and the Environment are evaluated
  - A legal restriction will be implemented to prevent residential use or soil disturbance
  - A condition of No Significant Risk has been achieved
- Assuming an Activity and Use Limitation (AUL) will be implemented, no remedial action is required for the DDA
  - Response actions will continue for the larger Site that includes the DDA
  - These findings for the DDA do not affect the larger Site cleanup

Discussion/Q&A

Response Action Outcome for the entire Site

- What is a Response Action Outcome (RAO) statement and why use a Class C-2 RAO?
- How does this RAO relate to earlier RAOs for the former Bird Machine Company property?
- How does this RAO affect future site activities?

What Is a Response Action Outcome?

- "Response Action Outcome" or "RAO" is achieved at a site when there is No Significant Risk of harm to health, safety, public welfare or the environment.
- An RAO Statement is a document submitted to the DEP that demonstrates that an RAO has been achieved.
- There are three classes of RAO:
  - Class A RAO → Permanent Solution
  - Class B RAO → No Remedial Action Necessary
  - Class C RAO → Temporary Solution
    - C-1 applies if no Permanent Solution is currently feasible
    - C-2 applies if a Permanent Solution is identified and feasible but requires time to achieve
- Each class has categories dependent upon:
  - Concentrations of contaminants remaining at the site
  - Whether Activity and Use Limitations (AULs) are necessary to maintain a condition of No Significant Risk

Why a Class C-2 RAO?

A Permanent Solution is feasible, therefore Class C-1 does not apply. The Site meets the following requirements of a "Temporary Solution" under a Class C-2 RAO:

- No Substantial Hazard exists
  - There is no unacceptable risk for current conditions
  - The use of Site groundwater as a water supply is not likely to occur at any forseeable time
- A "Permanent Solution," which requires that drinking water standards be achieved pursuant to Walpole bylaws, will require remedial action. The Remedial Action Plan includes Monitored Natural Attenuation (MNA).
- MNA is a feasible "Permanent Solution" and is expected to achieve a condition of No Significant Risk in 5-10 years

How does this RAO relate to previous RAOs?

- Previous Closures covered 5 other RTNs:
  - 1992 remediation of historic Fuel Oil spill
  - 1993 removal of historic Cart Path drums
  - 2002 remediation of historic Cutting Oil spill
  - 2004 remediation of historic Petroleum spill
  - 2005 removal of historic buried Asbestos materials

- This RAO for RTN 4-3024222 includes:
  - All other areas investigated/remediated within the RTN boundary: Demolition Debris Area, Manufacturing Building Area, Lead Release Area 3, and the South Rail Spur
  - The area of groundwater contamination where remedial action (Monitored Natural Attenuation) is required for a Permanent Solution
  - This is the last unclosed RTN at the property

How does this RAO affect Future Activities?

Future Activity will focus on Phase IV Remedy Implementation: Monitored Natural Attenuation for groundwater

- December 2011 Submit Final Phase II and III reports
  - Address and incorporate comments on the October 2011 Draft Remedial Action Plan
  - Address and incorporate comments on the November 2011 Draft Comprehensive Site Assessment Addendum, as described tonight
- February 2012 Submit Draft Remedy Implementation Plan (RIP)
  - Provides the design details for the selected remedy
  - Includes placement, construction, and sampling frequency of monitoring wells
  - Public Meeting and Comment Period in February to discuss the RIP design

Future Activities, continued

- April 2012 Submit Final RIP and begin Construction
  - Install, develop, and survey monitoring systems described in the RIP
  - Conduct field screening and evaluate results during installation; if needed modify the remedy from the RIP design based on site conditions
- June 2012 Complete Construction
  - Submit Final Inspection Report & Phase IV Completion Statement
  - Public Meeting and Comment Period during June to discuss the installed system, future operations, and reporting
  - Begin Phase V Remedy Operation, Maintenance, and Monitoring

Discussion/Q&A

What are eco services?

Services traditionally viewed as free benefits to society.

- Wildlife habitat and diversity
- Watershed services (water quality, flood control)
- Carbon storage (e.g. for carbon dioxide, a greenhouse gas)
- Scenic Landscapes

Results of Ecological Services Assessment for the Property

High level of ecological services are provided by the property.

- Wetlands – nutrient cycling, sediment trapping, flood storage
- Biodiversity – priority habitats, rare-threatened-endangered species (Hessel's Hairstreak butterfly), vernal pools
- Aquifer recharge and protection
- Water quality and enhancement
- Forest carbon sequestration

Opportunities for Enhancing Ecological Services

- Land Protection (e.g., conservation easement)
- Creation/Enhancement of Wetlands
- Stream Restoration
- Riparian (waterfront) Habitat Creation & Restoration
- Reforestation of Formerly Disturbed Areas

Our voluntary efforts at this property include evaluating these opportunities, and preparing a Conservation Plan

Discussion/Q&A

Closing Remarks

- Summary of the Presentation
  - Recent Activities and Current Conditions
  - Draft Phase II Addendum for Demolition Debris Area
  - Draft Response Action Outcome Statement for the Site
  - Results of Ecological Services Assessment

- Next Steps
  - Public Input on these Draft Documents and prepare Final versions
  - Begin Phase IV Remedy Implementation for Monitored Natural Attenuation of groundwater

Please Provide Comments by Monday December 12, 2011 to:

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