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NWIRP BETHPAGE
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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND, MID-ATLANTIC
9742 MARYLAND AVENUE
NORFOLK, VA 23511-3095

IN REPLY REFER TO:

5090
Code OPNEEV4/SWC
16 October 2007

MEMORANDUM

FOR THE MEMBERS OF THE RESTORATION ADVISORY BOARD (RAB) FOR THE INSTALLATION RESTORATION PROGRAM AT NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP) BETHPAGE, NEW YORK

Please note that the location of the meeting has been changed!
The Navy would like to announce that a *Restoration Advisory Board (RAB)* meeting has been scheduled for Wednesday, November 7, 2007. This meeting is open to the general public and will begin at 7:00 PM. The location of the meeting is:

NWIRP Bethpage
Conference Room
999 South Oyster Bay Road
Bethpage, New York 11714
516-346-0344 or 516-702-5861
(To access the NWIRP site, pull up to the gate and the guard will open it for you.)

Items that will be discussed during this meeting will include:

- Site 1 – General Site Update
- Sites 1, 2, and 3 – Five Year Review Status
- AOC-22 – General Update
- GM-38 Construction Status – Long Term Easement Status
- Soil Gas Investigation along Site 1 boundaries
- GM-75/VPB-104 Area Investigation – General Update

Attached are the minutes from the August 1, 2007 meeting for your review. These minutes will be discussed and approved at the November 7th meeting. If you need additional information, I am available by telephone, 757-444-4114, or email, susan.clarke1@navy.mil.

Sincerely,

Susan W. Clarke

Susan W. Clarke
Remedial Project Manager
By direction of the Commanding Officer

Enclosures: (1) RAB Minutes from the 08/01/07 Meeting

Distribution:
NAVFAC Midlant, Susan Clarke
NAVAIR, Joe Kaminski
NYSDEC (Albany), Steve Scharf
NYSDEC (Albany), Henry Wilkie
NYSDEC (Stony Brook), Walter Parrish
NYSDOH, Jacqueline Nealon
NYSDOT, John Petroff
USEPA Region II, Carol Stein
USEPA Region II, Carla Struble
Nassau County, Tom Maher
Nassau County DOH, John Lovejoy
Nassau County DPW, Tim Kelly
Public Repository
Town of Oyster Bay, Hon. John Venditto
Town of Oyster Bay, Richard Pfaender
Town of Oyster Bay DPW, Tom Clark
Town of Oyster Bay DPW, Matt Russo
Tetra Tech NUS, David Brayack
ECOR Solutions, Al Taormina
Northrop Grumman, Larry Leskovjan
Northrop Grumman, John Cofman
ARCADIS, Carlo San Giovanni
Community Co-Chair, Jim McBride
Community RAB Member, Mike Grello
Community RAB Member, Hon. Ed Mangano
Community RAB Member, Linda Mangano
Community RAB Member, Ed Resch
Community RAB Member, Charles Bevilacqua
Community RAB Member, Roy Tringali
Community RAB Member, Rosemary Styne

RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT BETHPAGE
NWIRP BETHPAGE
BETHPAGE, NEW YORK
WEDNESDAY, AUGUST 1, 2007

The eighteenth meeting of the Restoration Advisory Board (RAB) began at approximately 7:10 pm. Meeting attendees included representatives from the Navy (Susan Clarke, Matt Kurtz, Nina Johnston, and Suzanne Krolikowski), New York State Department of Environmental Conservation (NYSDEC)(Steve Scharf), New York State Department of Transportation (John Petroff), Town of Oyster Bay (Rich Pfaender, and Matthew Russo), Nassau County (Thomas Lai), RAB community members (Rosemary Styse and Charles A Bevilacour), Tetra Tech NUS, Inc. (Tetra Tech) Representatives (David Brayack and Timothy Smith), and ECOR-Solutions Representatives (Al Taormina, Will Torres, and Matt Lapp). The meeting sign-in sheet is provided as Attachment 1.

WELCOME AND AGENDA REVIEW

The Navy representative, Susan Clarke, Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic, welcomed everyone to the RAB meeting and reviewed the meeting agenda. The agenda for the meeting is included as Attachment 2.

COMMUNITY UPDATE AND REVIEW AND APPROVAL OF MEETING MINUTES

Ms. Clarke inquired whether the RAB members received the November 2006 minutes, which were distributed in March 2007, and asked whether there were questions or comments on the minutes. There were no comments or questions, but the approval of the minutes was tabled again because of the limited number of RAB community members present at the meeting. Minutes requiring approval to date include November 2006, August 2006 and March 2006.

TIGER TEAM STUDY AND SITE 1 – SOILS UPDATE

Ms. Clarke discussed the development and members of the Cleanup Review Tiger Team (CURTT) that was established in August 2006. Ms. Clarke indicated that the initial CURTT meeting was held on-site and subsequent meetings were held via telephone and that the CURTT discussed, evaluated, and identified possible remedial alternatives for Site 1. Ms. Clarke continued with a discussion on the historic remedial actions that have been conducted at Site 1, post-Record of Decision (ROD) remedial design studies, and the inclusion of dry wells and areas of concern within the limits of Site 1. Highlights of this conversation are presented on slides 3 through 10 of the handout provided during the meeting (handout provided as Attachment 3).

Mr. Scharf with the New York Department of Environmental Conservation, expressed surprise with the expansion of the boundary of Site 1 from the ROD identified boundary. Mr. Scharf indicated that he agrees with the Navy's inclusion of the dry wells and areas of concern within the Site 1 limits, but will check into whether an addendum 1995 ROD is required. Mr. Scharf is not sure if an addendum will be required.

SITES 1, 2, AND 3 – FIVE YEAR REVIEWS

Ms. Clarke presented an update on the Five–Year Reviews being conducted at Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage Sites 1, 2, and 3. Ms. Clarke's presentation identified the purpose behind and the requirements for the 5-year reviews. Highlights of this conversation are presented on slides 11 through 16 of the handout provided during the meeting (handout provided as Attachment 3).

GM-38 CONSTRUCTION STATUS

Ms. Clarke concluded her presentation with a discussion on the progress of the GM-38 groundwater treatment system construction. Ms. Clarke indicated that the Navy is continuing to negotiate access agreement. Ms. Clarke outlined a schedule indicating that the Navy anticipates the Draft Final Easements will be completed by the end of August 2007, Final Easements will be completed by the end of September 2007, and that construction will begin by the end of October 2007 (slide 17 of handout provided as Attachment 3).

SITE 1 SOIL GAS INVESTIGATION

Mr. Brayack, (Tetra Tech) discussed the proposed plans to conduct a soil gas investigation at the edge of Site 1 to determine the presence and potential migration of soil vapors from Site 1 to off-site locations. Mr. Brayack discussed the proposed sampling plan. The Site 1 Soil Gas Investigation details are presented on slides 18 through 20 of the handout provided as Attachment 3.

Mr. Scharf asked if the Navy had considered expanding the soil gas investigation to areas east and southeast of Site 2. Mr. Scharf indicated that Northrop Grumman had collected soil vapor samples in this area that identified soil vapor contamination in this area. The Navy agreed to look at the data that Northrop Grumman collected and consider adding soil gas samples in this area as part of their investigation.

AOC 22/SITE 4 – CLB SYSTEM UPDATE

Mr. Brayack discussed the AOC 22/Site 4 concerns, history, and current status. Mr. Brayack further discussed the pending report (due summer 2007) that will evaluate and recommend remedial alternatives for AOC 22/Site 4. This discussion is summarized on slides 21 through 25 of the handout provided as Attachment 3. Mr. Scharf identified bioremediation processes that may be efficient in removing contamination that still remains within the AOC 22/Site 4 soils. The Navy and Mr. Scharf agreed to engage in further conversation concerning these technologies in the next NWIRP Team Meeting.

GM-75 AREA INVESTIGATION

Mr. Brayack indicated that a work plan for the GM-75 investigation was submitted for review and discussed the GM-75 investigation, including the investigation goals, community relations, groundwater plume concentrations, groundwater plume migration, and containments systems. Mr. Brayack further discussed that the data collected to date indicates that additional data needs to be collected to identify whether the GM-38 treatment/containment systems needs to be expanded to account for the GM-75 area.

Mr. Scharf requested that the Navy re-look at schedules for the GM-75 investigations and the GM-38 system construction. Mr. Scharf does not want the GM-38 system construction to be delayed to address the outcome of the GM-75 investigation. The Navy indicated that scheduling would be discussed at the next NWIRP Team Meeting and that the delays on the GM-38 system construction were related to easement issues, not the proposed GM-75 investigation.

There was a general discussion on the GM-75 investigation and the GM-38 system construction schedule. Mr. Scharf also wanted a commitment from the Navy that the GM-75 issues would not affect the GM-38 system construction schedule. Mr. Scharf also indicated that NYSDEC could provide the Navy with information on sampling conducted by Northrop Grumman in one of the areas addressed by the GM-75 investigation. Mr. Russo, with the town of Oyster Bay, indicated his concern over changes in the plume and how those changes may result in uncontrolled expansion of the GM-38 system. The general consensus on the discussion was that the Navy should proceed with the construction of the GM-38 system.

CLOSING REMARKS

Ms. Clarke thanked everyone for coming to the meeting and verified that the Next RAB meeting would be held in November 2007. A notice for the next RAB meeting will be provided.

Mr. Scharf requested that there are problems with the Water District out post wells and that the Navy needs to move forward with them and begin treatment. The Navy indicated that they were also interested in getting a treatment in place but the means of that treatment have not yet been resolved.

No other RAB members had closing remarks, and the meeting was adjourned at approximately 8:20 pm.

ATTACHMENT 1

AUGUST 1, 2007 RAB MEETING SIGN-IN SHEET

18th RAB Meeting for NWIRP Bethpage
August 1, 2007
Sign-In List

Name	Address (if interested in being on mailing list)	Organization	How Did You Hear of Meeting?
Matt King	9742 Maryland Ave Norfolk VA 23511	MidLANT	
Susan Clarke	"	MIDLANT	
Will Torres		ECOR	
Matt Lapp		ECOR	
* Steven Scharf	NYSDEC 625 Broadway Albany NY 12233-7015	NYSDEC	from SUSAN
Rich Pfaender	Town of Oyster Bay Supervisor office		
Thomas Lai		Nassau County Legislator	Ed Mangano
Matthew Russo	Town-Public Works		
Rosemary Styre	N.C. FARP - LTAC		Member
DAVID STEW	ARCADIS 2 HUNTINGTON QUADRANGLE MELVILLE, NY 11747		NGC
AL TAOKOMINS			
Nina Johnson	NAVFAC Mid-Atlantic		

* Needs a Name Tag

18th RAB Meeting for NWIRP Bethpage
August 1, 2007
Sign-In List

Name	Address (if interested in being on mailing list)	Organization	How Did You Hear of Meeting?
Suzanne Krolikowski		OGC MIDLANT	
CHARLES A BEVILACQUA		RAB	
John Petroff		NYSDOT	
Timothy Smith		TENUS	
David Brayack		Tetra Tech	

ATTACHMENT 2

AUGUST 1, 2007 RAB MEETING AGENDA

Agenda

Restoration Advisory Board
Naval Weapons Industrial Reserve Plant Bethpage

August 1, 2007
NWIRP Bethpage, Bethpage, NY
7:00 p.m.

Welcome and Agenda Review
Susan Clarke, NAVFAC Mid-Atlantic

Meeting Minutes
All Members

Technical Progress

Tiger Team Study and Site 1 - Soils Update
Susan Clarke, NAVFAC Mid-Atlantic

Sites 1, 2, and 3 - Five Year Review - Susan Clarke

GM-38 Construction Status - Susan Clarke

AOC 22/Site 4 - CLB System Update
David Brayack, Tetra Tech NUS

GM-75 Area Investigation - David Brayack

Closing Remarks
Susan Clarke, NAVFAC Mid-Atlantic

Presenters will be available after the program for questions.

ATTACHMENT 3

NAVY AND TETRA TECH NUS, INC. PRESENTATIONS

Restoration Advisory Board (RAB) Meeting
Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage
August 1, 2007

Agenda

Restoration Advisory Board
Naval Weapons Industrial Reserve Plant Bethpage

August 1, 2007
NWIRP Bethpage, Bethpage, NY
7:00 p.m.

Welcome and Agenda Review
Susan Clarke, NAVFAC Mid-Atlantic

Meeting Minutes
All Members

Technical Progress

Tiger Team Study and Site 1 - Soils Update
Susan Clarke, NAVFAC Mid-Atlantic

Sites 1, 2, and 3 - Five Year Review - Susan Clarke

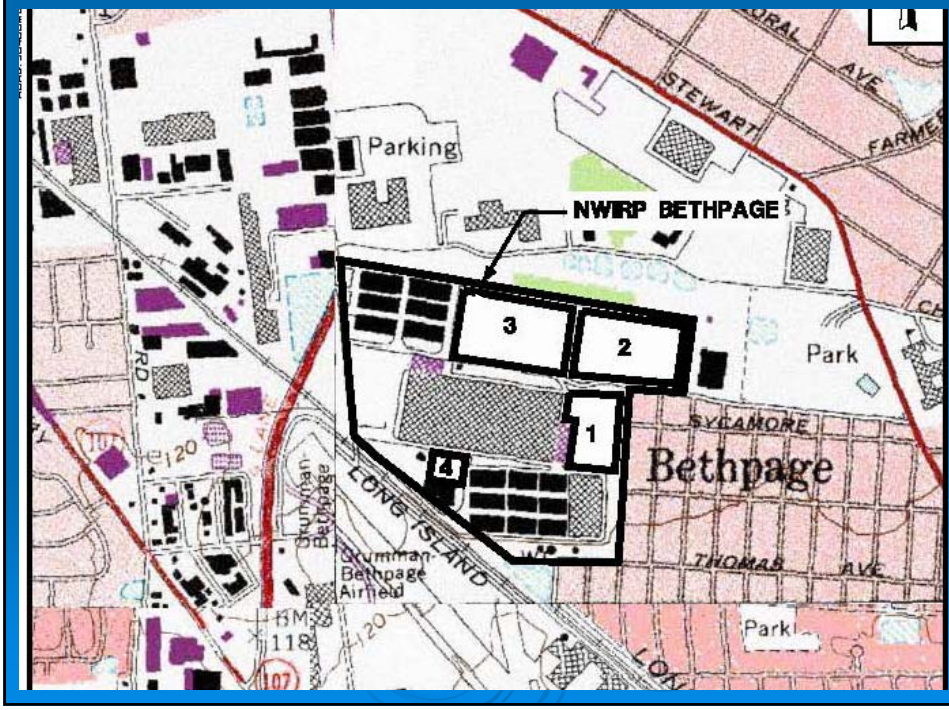
GM-38 Construction Status - Susan Clarke

AOC 22/Site 4 - CLB System Update
David Brayack, Tetra Tech NUS

GM-75 Area Investigation - David Brayack

Closing Remarks
Susan Clarke, NAVFAC Mid-Atlantic

Presenters will be available after the program for questions.



Tiger Team Study and Site 1 Soil Update

- Cleanup Review Tiger Team (CURTT) – established August 2006
- Evaluate/identify possible remedial alternatives for Site 1
- Members include individuals from Navy and private industry with relevant experience in Site 1 issues

Tiger Team Study and Site 1 Soil Update

- Site 1 remedial actions include:
  - AS/SVE system operation from 1998-2002
  - Approx 4,600 lbs of VOCs were removed
- In October 2002, Navy concluded that objectives were complete and recommended system shutdown and removal
- In December 2003, NYSDEC concurred

Tiger Team Study and Site 1 Soil Update

- Post-ROD remedial design studies were conducted from 1995 through 2001 to delineate the vertical extent of PCBs in soils (1 mg/kg surface and 10 mg/kg subsurface)
- Studies also evaluated other contaminants of potential concern (PAHs and metals)
- Addition of two dry wells (20-08 and 34-07)

Site 1

Five-Year Review

- Purpose of 5 yr Review - evaluate implementation & performance of the remedies at the sites to determine whether the remedies remain protective of human health and the environment
- 5 yr Review required by statute - Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
- First 5 yr Review of NWIRP Bethpage - Remedial actions completed at Sites 2 and 3 in 2002

Five-Year Review

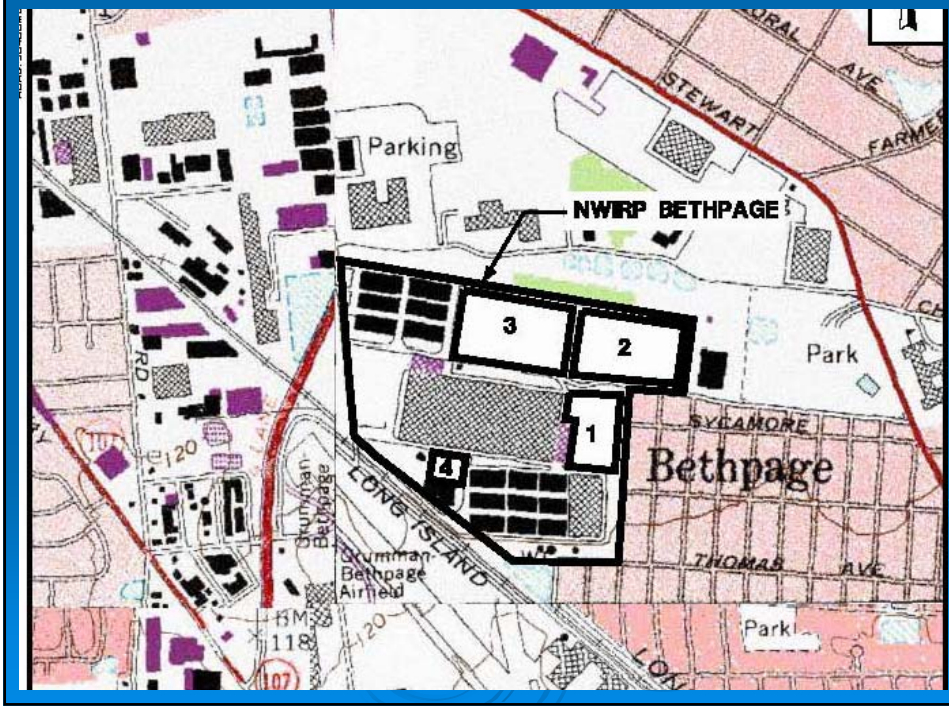
- Site 1 – Former Drum Marshalling Area
  - 2 concrete pads (storage of waste drums)
  - 120 abandoned sanitary cesspools
  - In 2005, Site 1 was expanded to include:
    - Drywell/Area of Concern (AOC) 34-07 (stormwater management system)
    - Drywell/AOC 20-08
    - AOC 23 – Former Above Ground Storage Tanks
    - AOC 30 – Storage Sheds
    - AOC 35 – Former Sludge Drying Beds
- COC are PCBs, metals, and PAHs
- Site 1 still under investigation/remedy determination

Five-Year Review

- Site 2 –Recharge Basins
- Part of storm water system used to channel surface water underground
- Low-level soil contamination present (VOCs, metals, PAHs, PCBs)
- Remedial Actions performed:
  - Excavated 2,600 cy PCB-contaminated soil
  - Installed permeable 6-inch cover
  - Implemented deed restrictions

Five-Year Review

- Site 3 - Salvage Storage Area
- Low-level soil contamination present (VOCs, metals, PAHs)
- Remedial actions performed
  - Implementation of deed restriction for future use


NWIRP BETHPAGE
Parking
STEWART
AVE
FARME
Park
SYCAMORE
Bethpage
THOMAS
AVE
LONG ISLAND
Grumman Bethpage
Grumman Bethpage Airfield
Park
3
2
1
4

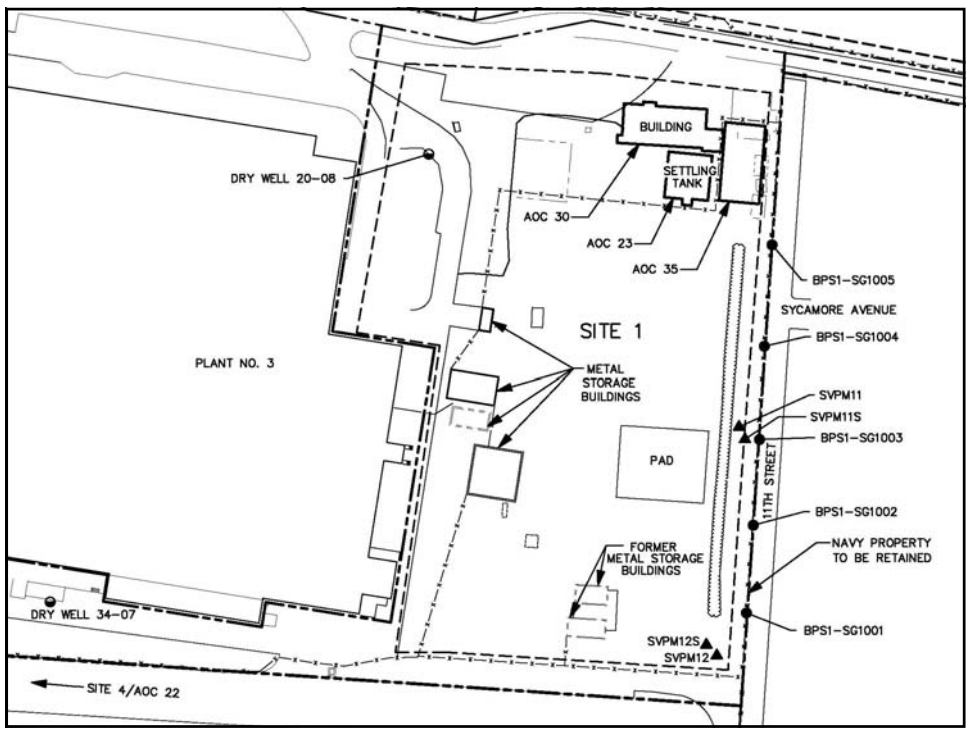
GM-38 Construction Schedule

- Construction delayed – Long term easements are being developed
- Draft Final Easements – August 2007
- 3 Property Owners Involved– LIRR, DOT, TOB
- Final Easements – September 2007
- Construction begins – October 2007

Site 1 Soil Gas Investigation

- Goal: Evaluate the presence and potential migration of soil vapors from Site 1 off site
- Prepare Work Plan (Sept 2007)

Site 1
Low-level Soil Contamination (VOCs, metals, PAHs, PCBs)


BUILDING
SETTLING TANK
DRY WELL 20-08
AOC 30
AOC 23
AOC 35
BPS1-SG1005
SYCAMORE AVENUE
BPS1-SG1004
SITE 1
PLANT NO. 3
METAL STORAGE BUILDINGS
SVPM11
SVPM11S
BPS1-SG1003
PAD
11TH STREET
BPS1-SG1002
NAVY PROPERTY TO BE RETAINED
FORMER METAL STORAGE BUILDINGS
DRY WELL 34-07
BPS1-SG1001
SVPM12S
SVPM12
SITE 4/AOC 22

AOC 22/Site 4
Former Underground
Storage Tank Area Update

Site History

- Three underground storage tanks active in 1940s to 1960s
- Contained No. 6 Fuel Oil
- Tanks were removed at an unknown time, probably early 1980s
- Underground tank slabs/saddles remain

Environmental Concerns

- Petroleum contamination, measured as total petroleum hydrocarbons (TPH), is primary concern
- Contamination is mostly adhered to soils – not mobile
- Polynuclear aromatic hydrocarbons (PAHs) primary chemicals of concern
- Majority of contamination is near the water table (60 feet below ground surface)
- Limited impact to groundwater

Closed Loop Bioremediation System

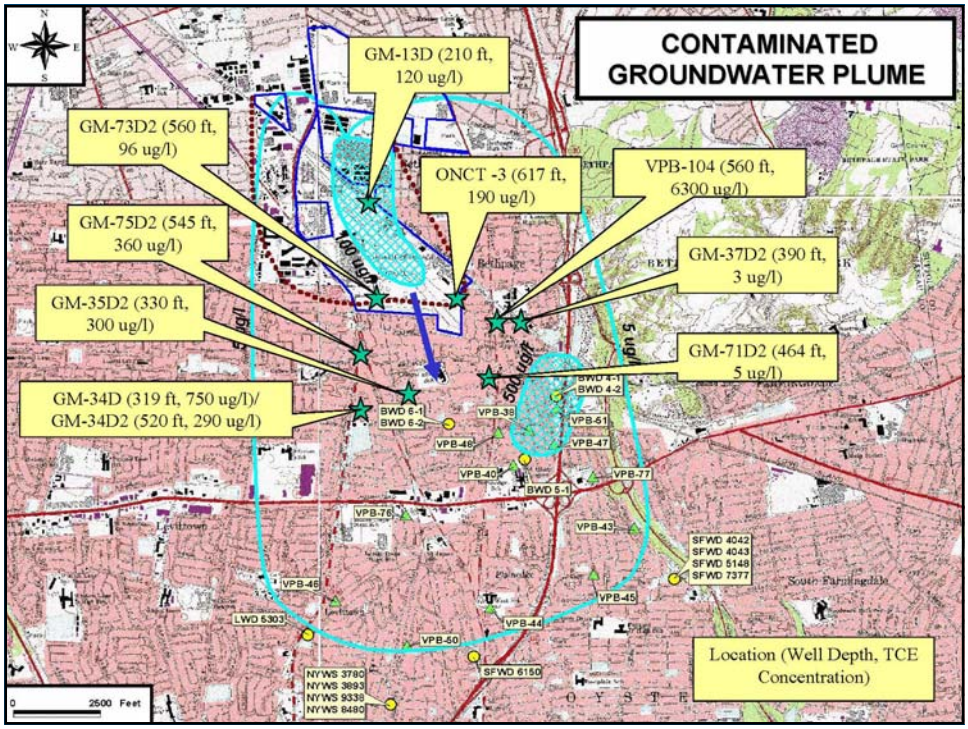
- Treatment Goal: Provide 90 percent reduction in TPH concentration.
- Treat soils and petroleum through the use of surfactants and biodegradation.
- System operated from fall 2004 to spring 2006.
- System demobilized from site in August 2006.
- Based on soil data, approximately 15 percent removal of TPH as of September 2005.

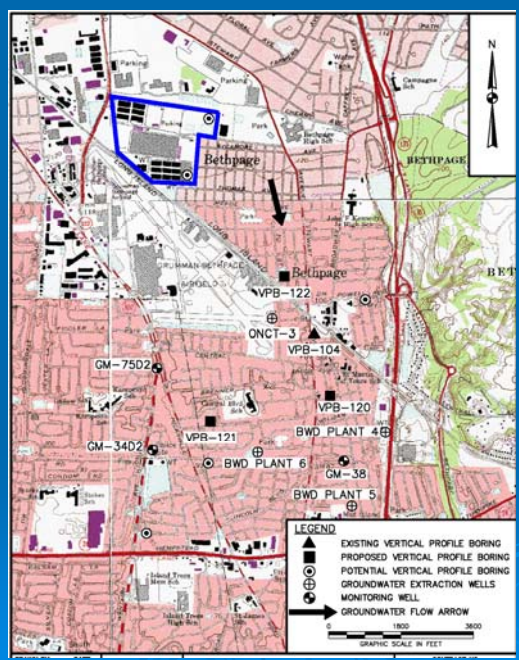
Status of Site 4

- Conducted final round of soil and groundwater testing, in December 2006
- Evaluated potential for formation of free product on groundwater and migration through groundwater
- Report in summer 2007

GM-75 Investigation

- Goal: Investigate an area of groundwater contamination that has migrated beyond the extent of the Northrop Grumman Groundwater Containment System
- Address other area hotspots as feasible


CONTAMINATED GROUNDWATER PLUME
GM-13D (210 ft, 120 ug/l)
GM-73D2 (560 ft, 96 ug/l)
ONCT -3 (617 ft, 190 ug/l)
VPB-104 (560 ft, 6300 ug/l)
GM-75D2 (545 ft, 360 ug/l)
GM-37D2 (390 ft, 3 ug/l)
GM-35D2 (330 ft, 300 ug/l)
GM-71D2 (464 ft, 5 ug/l)
GM-34D (319 ft, 750 ug/l)/ GM-34D2 (520 ft, 290 ug/l)
100 ug/l
500 ug/l
5 ug/l
BWD 6-1
BWD 6-2
VPB-38
VPB-61
VPB-47
VPB-46
VPB-40
VPB-77
BWD 5-1
VPB-76
VPB-43
SFWD 4042
SFWD 4043
SFWD 5148
SFWD 7377
VPB-46
VPB-45
LWD 6303
VPB-44
VPB-50
SFWD 6150
NYWS 3780
NYWS 3693
NYWS 9339
NYWS 8480
Location (Well Depth, TCE Concentration)
0 2500 Feet


Bethpage
VPB-122
ONCT-3
VPB-104
GM-75D2
VPB-120
BWD PLANT 4
VPB-121
GM-34D2
BWD PLANT 6
GM-38
BWD PLANT 5
LEGEND
EXISTING VERTICAL PROFILE BORING
PROPOSED VERTICAL PROFILE BORING
POTENTIAL VERTICAL PROFILE BORING
GROUNDWATER EXTRACTION WELLS
MONITORING WELL
GROUNDWATER FLOW ARROW
GRAPHIC SCALE IN FEET