

**U.S. Army Garrison Fort Monmouth
Restoration Advisory Board (RAB)
January 14, 2010 ~ 7:00 p.m.**

AGENDA

1. Call meeting to order.
2. Comments old business.
 - Approval of the July 9th and October 7th Meeting Minutes.
3. Discuss the status of:
 - Baseline Ecological Evaluation (BEE).
 - Stream Bank Stabilization Project.
 - Second round of In-Door Air Quality (Vapor Intrusion).
4. Discuss Unregulated Heating Oil Tank (UHOT) removals – Presented by Tecom-Vinnell Services
5. Discuss status of Installation Restoration Program (IRP) sites.
6. Discuss Fort Monmouth MODFLOW Groundwater Modeling – Presented by Brinkerhoff Environmental Services, Inc.
7. Round table discussion.
8. Discuss 2010 meeting schedule.
 - Thursday, April 8, 2010
 - Thursday, July 8, 2010
 - Thursday, October 7, 2010
9. Public comments/questions.
10. Meeting adjourned.

FORT MONMOUTH RESTORATION ADVISORY BOARD (RAB) MEETING

January 14, 2010 ~ 7:00 PM

SIGN-IN SHEET

PRINT NAME	ORGANIZATION	ADDRESS	TELEPHONE	EMAIL
BEN FORREST	NJ F ND CLEANSER	RED BANK	732-747 0306	Ben For...
Joseph Scarpelli	GEO CLEANSE INTERNATIONAL	OLD BRIDGE NJ	732-9706696	
Will Moody	Geo-Cleanse International, Inc	400 State Rt 34, Suite B Matawan, NJ	732 970 6696	wmoody@geocleanse.com
Mike Ryther	Tinton Falls	Redacted - Privacy Act Redacted - Privacy Act Redacted - Privacy Act		
Bob Hughes	Eatonville			
Tom MAHER	Emerpa, US			
DIANE CAMBERBURY	EMERPA	212 CORBETT WAY EATONTOWN, NJ	732-985- 5966	diane.camberbury@ emerpa.state.nj.us
Heather Saffert	Clean Ocean Action	Highlands NJ	Redacted - Privacy Act scin a B clen out action.org	
C. MANNING	TINTON FALLS RES	Redacted - Privacy Act		
E Kahle	Bar of Oceanport	Redacted - Privacy Act		

FORT MONMOUTH RESTORATION ADVISORY BOARD (RAB) MEETING

January 14, 2010 ~ 7:00 PM

SIGN-IN SHEET

PRINT NAME	ORGANIZATION	ADDRESS	TELEPHONE	EMAIL
Frank Cosentino	FMERPA	2-12 Corbett EATONTOWN	732 935 5964	Frank.Cosentino@Fmerpa STATZ. NJ. US
Jean Jackson	USAEC	APG-EA MD	410-436-0467	jean.f.jackson @US.army.mil
Charles Apple	US Army	FT. Mon. Bldg 173	732 575 7008	Charles.Apple @US.Army.mil
GARY DiMartinis	Brinkerhoff ENVIRONMENTAL	1913 ATLANTIC AVE. SUITE R5 MANASQUAN NJ 08736	732-223-2225	gdimaritis@ brinker.com
Jill Gwydir	SB Environmental Comm.	Redacted - Privacy Act		
David A. Sorensen	monmouth county Health			
		3434 RT 9 South Freehold NJ	732-431-7456	DSORENSE@monmath

13/12/20

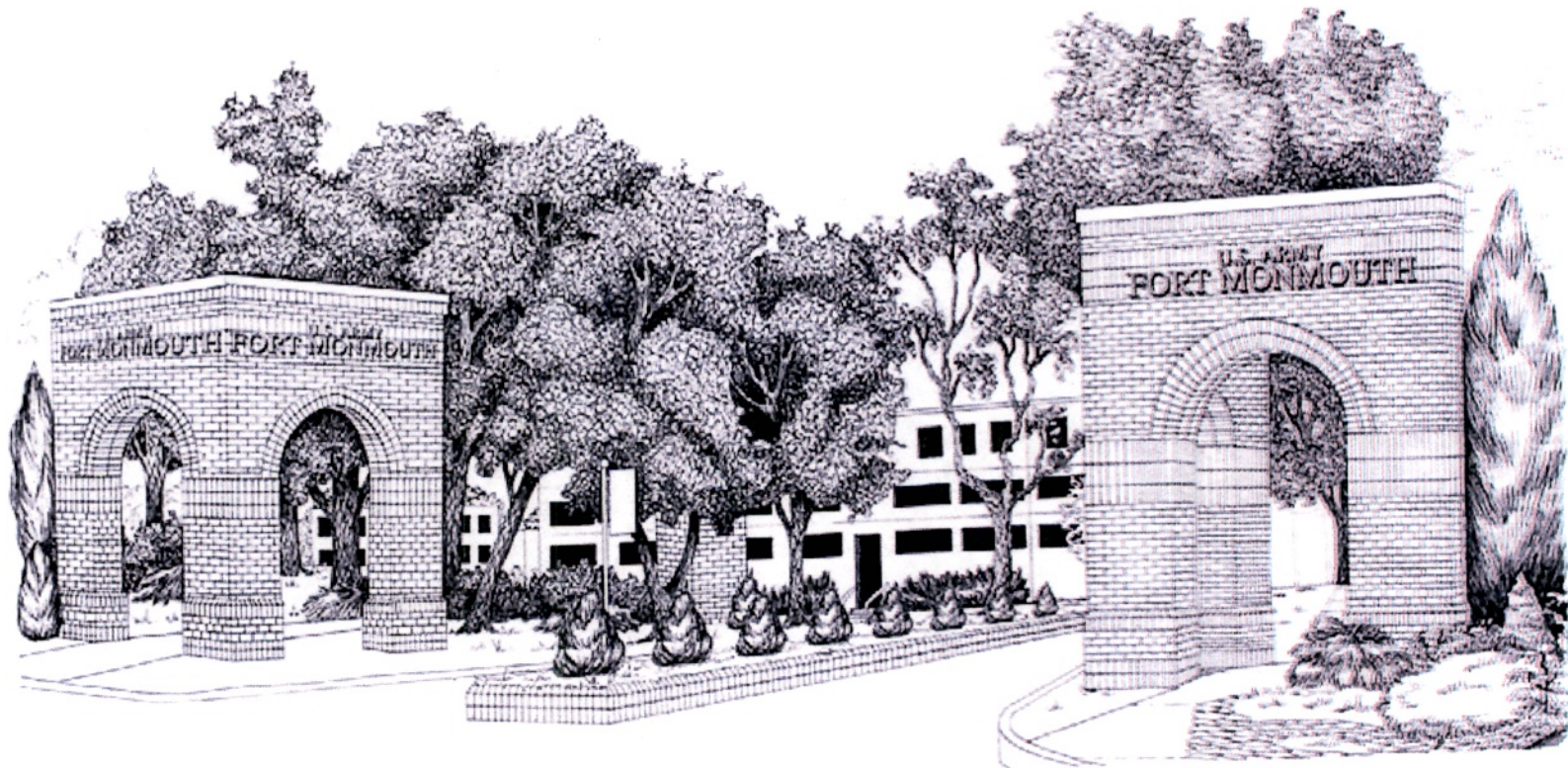
January 14, 2010 ~ 7:00 PM

REQUEST TO ASK QUESTIONS

[illegible]



Fort Monmouth Installation Restoration Program (IRP) Update



Garrison Bottom Line...Customer Satisfaction

U.S. Army Fort Monmouth IRP Status and ECP II Follow-Up

<u>AEDB-R Number</u>	<u>DESCRIPTION</u>	<u>Status</u>
FTMM-02	M2 - CLOSED SOLID WASTE LANDFILL	<u>PAST</u> : Operated as a landfill from 1964 until 1968. Performed ORC injections from 9/01 to 7/05.
		<u>PRESENT</u> : GW - CEA established with the NJDEP. Continue LTM for GW and surface water.
		<u>FUTURE</u> : Monitoring GW and surface water continues on a quaterly basis for VOA+15 parameters. Prepare annual analytical reports. Evaluate data for possible ORC injections. Renew CEA. Consider landfill cover . This site will be included in the BEE.
FTMM-03	M3 - CLOSED SOLID WASTE LANDFILL	<u>PAST</u> : Operated as a landfill from 1959 until 1964.
		<u>PRESENT</u> : MNA program was approved. Monitoring 8 wells on a quarterly basis.
		<u>FUTURE</u> : Monitoring GW and surface water continues on a quaterly basis. Prepare annual analytical reports. Prepare CEA. Consider landfill cover . This site will be included in the BEE.
FTMM -04	M4 - CLOSED SOLID WASTE LANDFILL	<u>PAST</u> : Operated as a landfill from 1955 to 1956
		<u>PRESENT</u> : Performing quarterly GW sampling.
		<u>FUTURE</u> : Prepare annual analytical report. Prepare CEA. Consider landfill cover. This site will be included in the BEE.
FTMM-05	M5 - CLOSED SOLID WASTE LANDFILL	<u>PAST</u> : Operated as a landfill from 1952 until 1959. Performed HRC injects from 10/00 to 12/05.
		<u>PRESENT</u> : Monitoring GW and surface water continues on a quarterly basis.
		<u>FUTURE</u> : Monitoring GW and surface water continues on a quaterly basis for VOA+15 parameters. Prepare annual analytical reports. Evaluate data for possible HRC injections. Prepare CEA. Consider landfill cover . This site will be included in the BEE.
FTMM-06	M6 - BURNING AREA	<u>PAST</u> : Open-air wood burning in small pits located within the M-3 Landfill.
		<u>PRESENT</u> : Awaiting NFA determination from NJDEP.
		<u>FUTURE</u> :
FTMM-07	M7 - BURNING AREA	<u>PAST</u> : Former incinerator, which was used until 1990 to burning classified documents. Prior to closure, the incinerator operated under a NJDEP air permit. The incinerator was dismantled in November 1993.
		<u>PRESENT</u> : "No Further Action", determination approved by the NJDEP, Nov 1994.
		<u>FUTURE</u> :

U.S. Army Fort Monmouth IRP Status and ECP II Follow-Up

<u>AEDB-R Number</u>	<u>DESCRIPTION</u>	<u>Status</u>
FTMM-08	M8 - CLOSED SOLID WASTE LANDFILL	<u>PAST</u> : Operated as a landfill from 1962 until 1981.
		<u>PRESENT</u> : Continue compliance monitoring of ten (10) ground water monitoring wells and surface water as a key component of monitored natural attenuation.
		<u>FUTURE</u> : Monitoring GW and surface water continues on a quaterly basis. Prepare annual analytical reports. Prepare CEA. Consider landfill cover . This site will be included in the BEE.
FTMM-09	M9 - PCB TRANSFORMER, B-1150	<u>PAST</u> : Prior to 1989, the policy at Fort Monmouth was to label all transformers as containing PCBs unless available test data proved otherwise. In 1990, a survey was completed for testing all transformers with no available data for PCB content. Test results for the transformers revealed PCB levels all below 50 parts per million (ppm). Under Toxic Substance Control Act (TSCA), all transformers containing PCBs at levels less than 50 ppm are considered Non-PCB Class Equipment.
		<u>PRESENT</u> : No Further Action determination approved by the NJDEP IN 1994.
		<u>FUTURE</u> :
FTMM-10	M10 - ASBESTOS STORAGE	<u>PAST</u> : The shed had sheet metal walls and was built on a concrete pad. The primary purpose of the shed was always to store machine parts for the boiler plant. Under the PA phase, the metal shed was inspected for evidence of asbestos containing materials; however non were found.
		<u>PRESENT</u> : No Further Action determination approved by the NJDEP.
		<u>FUTURE</u> :
FTMM-11	M11 - ELEVATED WATER TANK	<u>PAST</u> : Under the PA phase, site reconnaissance work revealed no visible stains, stressed soil or vegetation at the site. In addition, no visible debris (such as paint chips) was observed.
		<u>PRESENT</u> : No Further Action determination approved by the NJDEP IN 1995.
		<u>FUTURE</u> :
FTMM-12	M12 - CLOSED SOLID WASTE LANDFILL	<u>PAST</u> : Dates of operation are unknown.
		<u>PRESENT</u> : Continue compliance monitoring of eleven (11) ground water and surface on a quarterly basis.
		<u>FUTURE</u> : Continue compliance monitoring ground water monitoring wells on a quarterly basis and surface water pending NJDEP review. Prepare annual analytical report. Preparing CEA. Consider landfill cover. This site will be included in the BEE.

U.S. Army Fort Monmouth IRP Status and ECP II Follow-Up

<u>AEDB-R Number</u>	<u>DESCRIPTION</u>	<u>Status</u>
FTMM-13	M-13 PATHOGENIC WASTE INCIN.	<u>PAST</u>: The incinerator was used to burn medical waste from the hospital. The incinerator was dismantled in November 1993. <u>PRESENT</u>: "No Further Action", determination approved by the NJDEP, Nov 1994. <u>FUTURE</u>:
FTMM-14	M14 - CLOSED SOLID WASTE LANDFILL	<u>PAST</u>: Operated as a landfill from 1965 to 1966. <u>PRESENT</u>: Continue compliance monitoring of ground water and surface water on a quarterly basis. <u>FUTURE</u>: Continue compliance monitoring of ground water and surface water on a quarterly basis. Prepare annual analytical report. Evaluate data to determine if a CEA is required. Consider landfill cover. This site will be included in the BEE.
FTMM-15	M15 - WATER TANK	<u>PAST</u>: Final remedial activities were completed in November of 1999. <u>PRESENT</u>: A post remedial action report is currently being prepared for submission to NJDEP. A "No Further Action" letter from the NJDEP will be requested as part of the submittal. <u>FUTURE</u>: This site will be included in the BEE.
FTMM-16	M16 - PESTICIDE STORAGE, B- 498	<u>PAST</u>: Pesticide operations conducted at this site until the late 1950s. Corrective action was implemented to remove the contaminated soil from the site and final remedial activities were completed in February 1999. <u>PRESENT</u>: A post remedial action report is currently being prepared for submission to NJDEP. A "No Further Action" letter from the NJDEP will be requested as part of the submittal. <u>FUTURE</u>: This site will be included in the BEE.
FTMM-17	M17 - PESTICIDE STORAGE BLDG T-65	<u>PAST</u>: Pesticide operations conducted at this site from the late 1950s until 1980. <u>PRESENT</u>: "No Further Action" determination approved by the NJDEP, Nov 1994. <u>FUTURE</u>:
FTMM-18	M18 - FORMER TRAINING AREA	<u>PAST</u>: During the investigation of the site as a former training area, demolition debris was found buried in this area. <u>PRESENT</u>: Continue compliance monitoring of ground water and surface water on a quarterly basis. <u>FUTURE</u>: Continue compliance monitoring of ground water and surface water on a quarterly basis. Prepare annual analytical report. Preparing CEA. Consider landfill cover. This site will be included in the BEE.

U.S. Army Fort Monmouth IRP Status and ECP II Follow-Up

<u>AEDB-R Number</u>	<u>DESCRIPTION</u>	<u>Status</u>
FTMM-19	M19 - SANITARY TREAT PLT (AOC3)	<u>PAST</u> : The STP was built in 1941 to handle 700,000 gallons of sewage per day. The facility was closed in 1975, when the main post sewage system was connected to the County system. In 1981, all sludges and supernatant liquids were removed from the STP and the facility was cleaned and disinfected. The facility was demolished in 1983. No compounds of concern were detected above NJDEP Direct Contact Soil Cleanup Criteria or Sediment Criteria.
		<u>PRESENT</u> : "No Further Action" determination approved by the NJDEP, Apr 1996.
		<u>FUTURE</u> :
FTMM-20	M20 - FORMER SANITARY TREAT PLT	<u>PAST</u> : Exact dates of operation are unknown. It is presumed that this STP was in operation until the second STP came on line in 1941. Based on the outfall-specific and background sediment quality data, the elevated metals found are consistent with nearby, undisturbed locations.
		<u>PRESENT</u> : A remedial investigation report that requests a "No Further Action" determination from the NJDEP is currently being prepared.
		<u>FUTURE</u> :
FTMM-21	M21 - FORMER FIRING RANGE	<u>PAST</u> : Outdoor range was in operation between the late 1930s and the early 1950s. The range was closed with the onset of construction activities in the 1200 area. Grounds in the general vicinity of the former range, which were not affected by construction, are completely grass covered.
		<u>PRESENT</u> : A "No Further Action" determination will be requested from NJDEP.
		<u>FUTURE</u> : This site was reclassified for possible further investigation under MMRP.
FTMM-22	M22 - (CW-1) WASTEWATER TREAT LIME PIT	<u>PAST</u> : The Wastewater Treatment Lime Pit, built in 1952, was designed to treat corrosive waste generated from laboratory activities operating within building 2700. GW treatment system was turned off in Oct 2005.
		<u>PRESENT</u> : Performing quarterly GW sampling. Performing pump & treat and air sparging.
		<u>FUTURE</u> : Continue compliance monitoring of twelve (12) ground water monitoring wells. Evaluate data in consideration of HRC treatment. Prepare annual analytical report. Prepare CEA.
FTMM-23	M23 - (CW-2) WASTEWATER TREAT LIME PIT	<u>PAST</u> : Built in 1952. Liquid waste from the east and south wings of building 2700 passed through the pit before being discharged into the sanitary sewer.
		<u>PRESENT</u> : A remedial investigation report is currently being prepared and will be submitted to the NJDEP upon its completion. Upon its completion, submit remedial investigation report that requests "No Further Action" determination from the NJDEP.
		<u>FUTURE</u> :

U.S. Army Fort Monmouth IRP Status and ECP II Follow-Up

<u>AEDB-R Number</u>	<u>DESCRIPTION</u>	<u>Status</u>
FTMM-24	M24 - (CW-3) SURFACE DISPOSAL AREA	<u>PAST</u> : Administrative-type wastes and wood debris were placed into the landfill during the 1940s. Cleanup of the debris started in oct 1994 and was completed in May 1995. In 1997, the pit was excavated and no waste materials were found.
		<u>PRESENT</u> : "No Further Action" determination approved by the NJDEP, Jan 1998.
		<u>FUTURE</u> :
FTMM-25	M25 - (CW-3A) LANDFILL	<u>PAST</u> : From 1955 to 1956, 90 buildings were razed in the Charles Wood Area. It is possible that the demolition debris from these buildings were placed in this landfill.
		<u>PRESENT</u> : Continue compliance monitoring of ground water on a quaterly basis.
		<u>FUTURE</u> : Continue monitoring of groundwater on a quaterly basis. Prepare annual anlytical report. Evaluate data to determine if CEA ia required. Consider landfill cover. This site will be included in the BEE.
FTMM-26	M26 - INDOOR SMALL ARMS RANGE (CW-4)	<u>PAST</u> : Spent rounds and shell castings were visible at the surface of a bare patch of soil approximately 5 feet in diameter northeast of the building.
		<u>PRESENT</u> : "No Further Action" determination approved by the NJDEP, April 4, 1996.
		<u>FUTURE</u> :
FTMM-27	M27 - (CW-5) SANITARY TREAT PLT	<u>PAST</u> : The STP was built in 1942 to handle 800,000 gallons of sewage per day. The facility was closed in 1975, when the Charles Wood sewage system was connected to the County system.
		<u>PRESENT</u> : "No Further Action" determination approved by the NJDEP, Apr 1996.
		<u>FUTURE</u> :
FTMM-28	M28 - (CW-6) FORMER PESTICIDE STORAGE	<u>PAST</u> : This area was used for pesticide mixing until 2001.
		<u>PRESENT</u> : Continue compliance monitoring of ground water on a quaterly basis.
		<u>FUTURE</u> : Continue monitoring of groundwater on a quaterly basis. Prepare annual anlytical report. Evaluate data to determine if CEA ia required. Consider landfill cover. This site will be included in the BEE.

U.S. Army Fort Monmouth IRP Status and ECP II Follow-Up

<u>AEDB-R Number</u>	<u>DESCRIPTION</u>	<u>Status</u>
FTMM-29	M29 - (CW-7) PCB TRANSFORMER	<u>PAST:</u> Prior to 1989, the policy at Fort Monmouth was to label all transformers as containing PCBs unless available test data proved otherwise. In 1990, a survey was completed for testing all transformers with no available data for PCB content. Cleanup commenced in Nov 1997 and was completed in Feb 1998. <u>PRESENT:</u> A remedial action report was submitted to NJDEP. DPW implented remedial requirements submitted by NJDEP. DPW is in the process of preparing a final report to close out this site. <u>FUTURE:</u>
FTMM-30	M30 - (CW-8) SEWAGE LIFT STATION	<u>PAST:</u> This site is a sewage lift stage and was never a sanitary treatment plant, as formerly misidentified in the Installation Assesment in 1980. <u>PRESENT:</u> The lift station is still connected to the Fort Monmouth sewage collection system. "No Further Action" determination approved by the NJDEP, Nov 1994. <u>FUTURE:</u>
FTMM-31	M31 - SLUDGE DUMP	<u>PAST:</u> Since the 1940s, sludge generated from both the Main Post and Charles Wood Area STPs were stored in this area before being used as soil conditioner and fertilizer. <u>PRESENT:</u> No compounds of concern were found above the state criteria. Awaiting a "No Further Action" determination from the NJDEP. <u>FUTURE:</u>
FTMM-32	M32 - (AOC-7) HAZ WASTE STORAGE	<u>PAST:</u> This site was used for a 6 month period in 1987 to accumulate drums of hazardous waste. <u>PRESENT:</u> No compounds of concern were found above the state criteria. "No Further Action" determination approved by the NJDEP, Apr 1996. <u>FUTURE:</u>
FTMM-47	M47 - FORMER PCB TRANSFORMER, B-1002	<u>PAST:</u> Prior to 1989, the policy at Fort Monmouth was to label all transformers as containing PCBs unless available test data proved otherwise. In 1990, a survey was completed for testing all transformers with no available data for PCB content. <u>PRESENT:</u> When the transformers are replaced or removed from service, the minor PCB sources areas shall be addressed accordingly. Submitted a request for "No Further Action", to NJDEP. <u>FUTURE:</u>

U.S. Army Fort Monmouth IRP Status and ECP II Follow-Up

<u>AEDB-R Number</u>	<u>DESCRIPTION</u>	<u>Status</u>
FTMM-53	M53 - BLDG 699, GASOLINE STORAGE	<u>PAST</u>: Removed and excavated 12 tanks in this area from 1998 to 2007. One Fuel Oil UST was removed in 1998. One Waste Oil UST was removed in 1992. Four various grades of gasoline USTs were removed in 1999. Six gasoline USTs were removed in 2007. <u>PRESENT</u>: This site is an active gasoline service station. GW - CEA is currently being prepared for submission to NJDEP. Continue remedial action operation (air sparge, soil vapor extraction, pump & treat system) activities and monitoring efforts at Building 699 site. <u>FUTURE</u>: Continue quarterly groundwater monitoring of 13 wells. Prepare CEA. Prepare annual analytical report.
FTMM-54	M54 - BLDG 296, GASOLINE STORAGE	<u>PAST</u>: This is the former site of an gasoline station, which operated in the 1940s. Ten - 1,000 gallon UST were removed in 1993. <u>PRESENT</u>: Because area is within close proximity of the M-18 Landfill, this area is being monitored and tracked under the M-18 site. <u>FUTURE</u>: Include this site under the M-18 CEA and annual analytical reports.
FTMM-55	M55 - BLDG 290, UST GASOLINE	<u>PAST</u>: Removed and excavated 2 gasoline tanks in this area in 1994. <u>PRESENT</u>: Because area is within close proximity of the M-18 Landfill, this area is being monitored and tracked under the M-18 site. <u>FUTURE</u>: Include this site under the M-18 CEA and annual analytical reports.
FTMM-56	M56 - BLDG 80, PETROLEUM RELEASE	<u>PAST</u>: Removed and excavated 2 USTs in this area. <u>PRESENT</u>: Currently performing quarterly monitoring. <u>FUTURE</u>: Continue compliance monitoring of ground water monitoring wells on a quarterly basis Prepare CEA. Prepare annual analytical report.
FTMM-57	M57 - BLDG 108 UST GASOLINE RELEASE	<u>PAST</u>: Removed 6 single-walled USTs in this area in Apr 1993 and Jul 1994. <u>PRESENT</u>: Currently performing quarterly monitoring. <u>FUTURE</u>: Continue compliance monitoring of ground water monitoring wells on a quarterly basis Prepare CEA. Prepare annual analytical report.

U.S. Army Fort Monmouth IRP Status and ECP II Follow-Up

<u>AEDB-R Number</u>	<u>DESCRIPTION</u>	<u>Status</u>
FTMM-58	M58 - BLDG 2567, UST GASOLINE	<u>PAST</u> : In Dec 1991, cleaned and excavated two (2) single-walled gasoline USTs.
		<u>PRESENT</u> : Currently performing quarterly monitoring.
		<u>FUTURE</u> : Continue compliance monitoring of ground water monitoring wells on a quarterly basis Prepare CEA. Prepare annual analytical report.
FTMM-59	M59 - BLDG 1122, UNKNOWN DISCHARGE	<u>PAST</u> : Removed and excavated two (2) single-walled steel USTs.
		<u>PRESENT</u> : Currently performing quarterly monitoring.
		<u>FUTURE</u> : Plan to perform HRC injections. Continue compliance monitoring of ground water and surface water on a quarterly basis. Prepare annual analytical report. Evaluate data to determine if a CEA is required. This site will be included in the BEE.
FTMM-61	M61 - B37BLDG 283, LEAKING UST GASOLINE	<u>PAST</u> : Removed and excavated two (2) steel USTs.
		<u>PRESENT</u> : Currently performing quarterly monitoring.
		<u>FUTURE</u> : Perform ORC injections. Continue quarterly compliance monitoring of ground water and surface water. Prepare CEA. Prepare annual analytical report. This site will be included in the BEE.
FTMM-63	M63 - BLDG 2603 UST GASOLINE	<u>PAST</u> : On April 14, 1998, a 275 gal steel diesel fuel UST was removed. Soils and GW within the tank excavation were observed to be impacted by a petroleum substance. Post excavation soil samples have identified remaining soils as within the NJDEP Residential Direct Contact Soil Cleanup Criteria.
		<u>PRESENT</u> : "No Further Action" determination approved by the NJDEP, Jan 2003.
		<u>FUTURE</u> :
FTMM-64	M64 - BLDG 812 UST GASOLINE	<u>PAST</u> : Former gasoline station, used from 1947 to 1961.
		<u>PRESENT</u> : Site is currently being used as a parking lot. Currently performing quarterly monitoring.
		<u>FUTURE</u> : Perform HRC injections. Continue compliance monitoring of ground water monitoring wells as a key component of monitored natural attenuation. Prepare CEA. Prepare annual analytical report.

U.S. Army Fort Monmouth IRP Status and ECP II Follow-Up

<u>AEDB-R Number</u>	<u>DESCRIPTION</u>	<u>Status</u>
FTMM-66	BLDG 886 FORMER AST	<u>PAST</u> : A 250,000 gallon #2 Fuel Oil AST was removed in 1970. Soil contamination was identified during a removal of a 1,000 gallon steel oil UST located on the west side of building 886. It was later determined that the soil contamination actually stemmed from the AST .
		<u>PRESENT</u> : Currently performing quarterly monitoring.
		<u>FUTURE</u> : Continue compliance monitoring, on quarterly basis, of ground water monitoring wells. Evaluate data to determine if a CEA is required. Prepare annual analytical report.

ECP PHASE II - SI REPORT

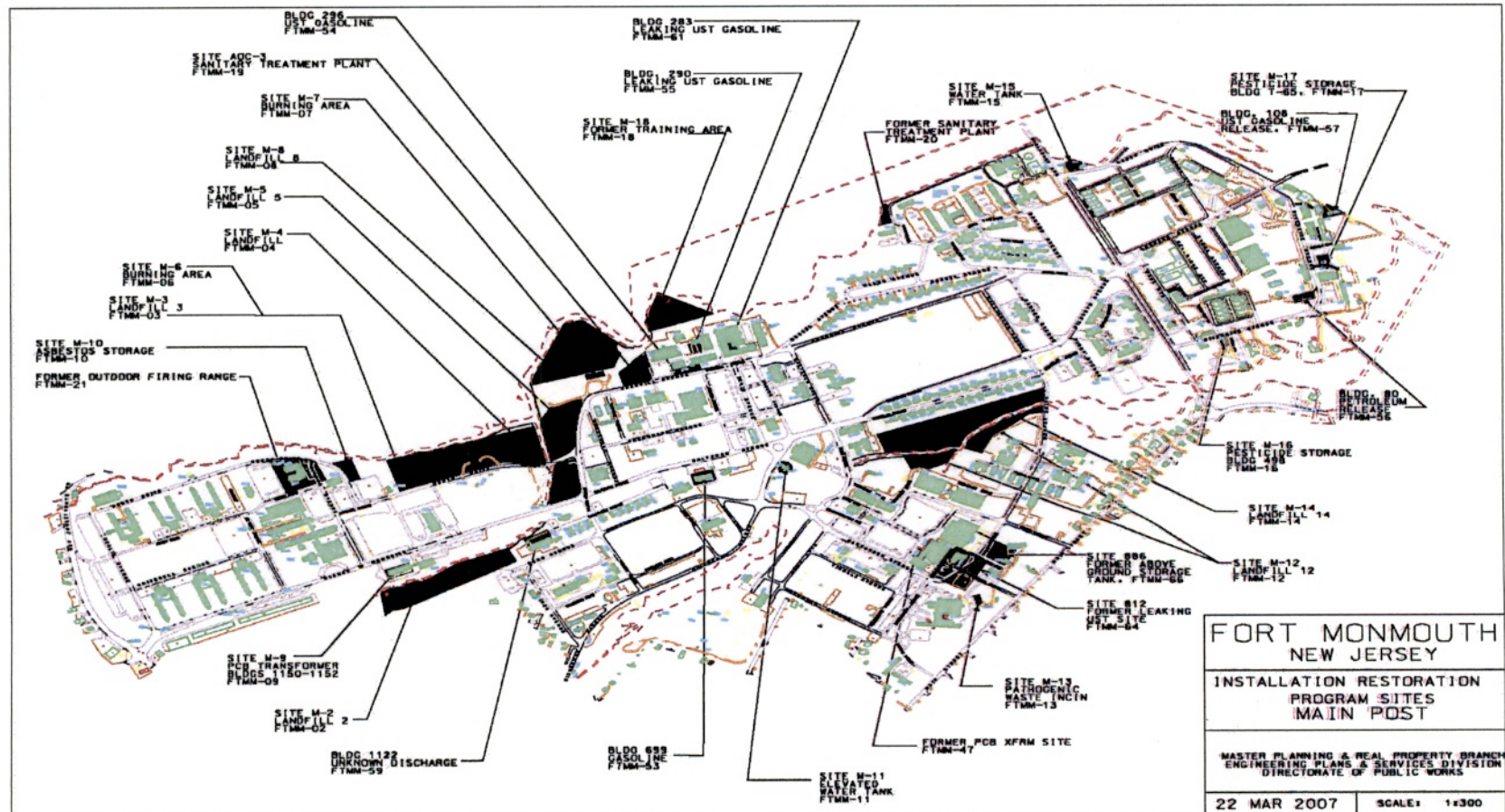
Parcel #13	Former Barracks (Bldgs 2004-2016)	No further action determination will be requested.
Parcel #14	Former AFH, Northwest of CWA	No UHOT was found
Parcel #15	CW 2 and Former Barracks	Will request NFA for soil, GW and former USTs. B/Ns and metals found in sediment will be addressed in the BEE.
Parcel #27	SW portion of CWA	Metals found in the sediment will be addressed in the BEE. Will request NFA for soil.
Parcel #28	Former lab and Motor Pool	Will recommend NFA for soil, GW, septic tank, supply pipe and distribution box. Will address the chromium in the sediment during the BEE. One UHOT removed. No contamination found. Area was backfilled with clean soil.
Parcel #34	M58, Bldg 2567	One additional round of indoor air sampling will be performed to determine if constituents are present above criteria.
Parcel #38	Former Outdoor Firing Range	No further action will be requested.
Parcel #39	Bldg 1150 Film Developing Activities	Will request NFA for soil. Recommend B/Ns and metals found in sediment to be addressed in the BEE. (0.6 ac)
Parcel #43	Bldg 1122 Former Waste Handling Activities	Will address the B/Ns and metals found in sediment in the BEE. One additional round of Indoor Air sampling will be performed to confirm no constituents associated with GW and/or soil gas are present in indoor air above criteria.
Parcel #49	Former Lab and Battery Test Facility	Will address the metals found in the sediment in the BEE. Will capture the GW COCs in the existing M-18 CEA.
Parcel #50	Former Fuel Distribution Facility	Will perform one additional round of indoor air sampling to confirm no constituents found in the soil gas sample are present above criteria.
Parcel #51 - Former Barracks	Former Barracks	Will request a NFA determination for soil. 9 UHOTS were removed. 7 of the 9 tanks were leakers. The 7 areas were investigated, remediated and backfilled with clean soil. 9 new monitoring wells will be added to this site.

U.S. Army Fort Monmouth IRP Status and ECP II Follow-Up

<u>AEDB-R Number</u>	<u>DESCRIPTION</u>	<u>Status</u>
Parcel #52	M53, Bldg 699 Gas Station	One additional round of indoor air sampling will be performed to confirm no constituents associated with groundwater and/or soil gas are present in indoor air above criteria.
Parcel #57	Former Coal Storage and RR unloading area	Perform additional evaluation of constituents of concern identified in surface soil and groundwater.
Parcel #61	Bldg 1075 Former Medical Discharge	Perform additional evaluation of constituents of concern identified in surface soil. Will address constituents of concern identified in sediment as part of a facility-wide baseline ecological evaluation.
Parcel #69	Bldg 900 Former Motor Pool	Will request no further action for soil. Will address constituents of concern identified in sediment as part of a facility-wide baseline ecological evaluation. Will further evaluate constituents of concern identified in groundwater.
Parcel #70	Bldg 551 former Photoprocessing	Will request a NFA for soil and sediment.
Parcel #76	Former Barracks	Will request a NFA for soil and GW. Seven UHOTs found. At least two of the tanks were leakers. Due to utilities in the area, the other tanks which have not been pulled, will be evaluated in the spring.
Parcel #79	Potential Former USTs	Will request a NFA for soil and GW. Four suspected UHOTs will be investigated.
Parcel #80	Former Photoprocessing	Will request a NFA for soil. Will further evaluate constituents of concern identified in groundwater.
Parcel #83	Former Industrial and Vehicle Related Activities	Will request a NFA for GW. Will further evaluate constituents of concern identified in surface soil.
Sanitary Sewer System	Sanitary Sewer System	Will request a NFA for the MP and CWA sanitary sewer systems.
Electrical Substation	Electrical Substation	Will request a NFA for the MP and CWA electrical substations.
ACRONYMS		
ac	Acres	
AST	Above Ground Storage Tank	
BEE	Baseline Ecological Evaluation	
CEA	Classification Exception Area	
GW	Ground Water	
HRC	Hydrogen Release Compound	
MNA	Monitor Natural Attenuation	
NJDEP	New Jersey Department of Environmental Protection	
ORC	Oxygen Release Compound	
STP	Sanitary Treatment Plant	
UHOT	Unregulated Heating Oil Tank	
UST	Underground Storage Tanks	



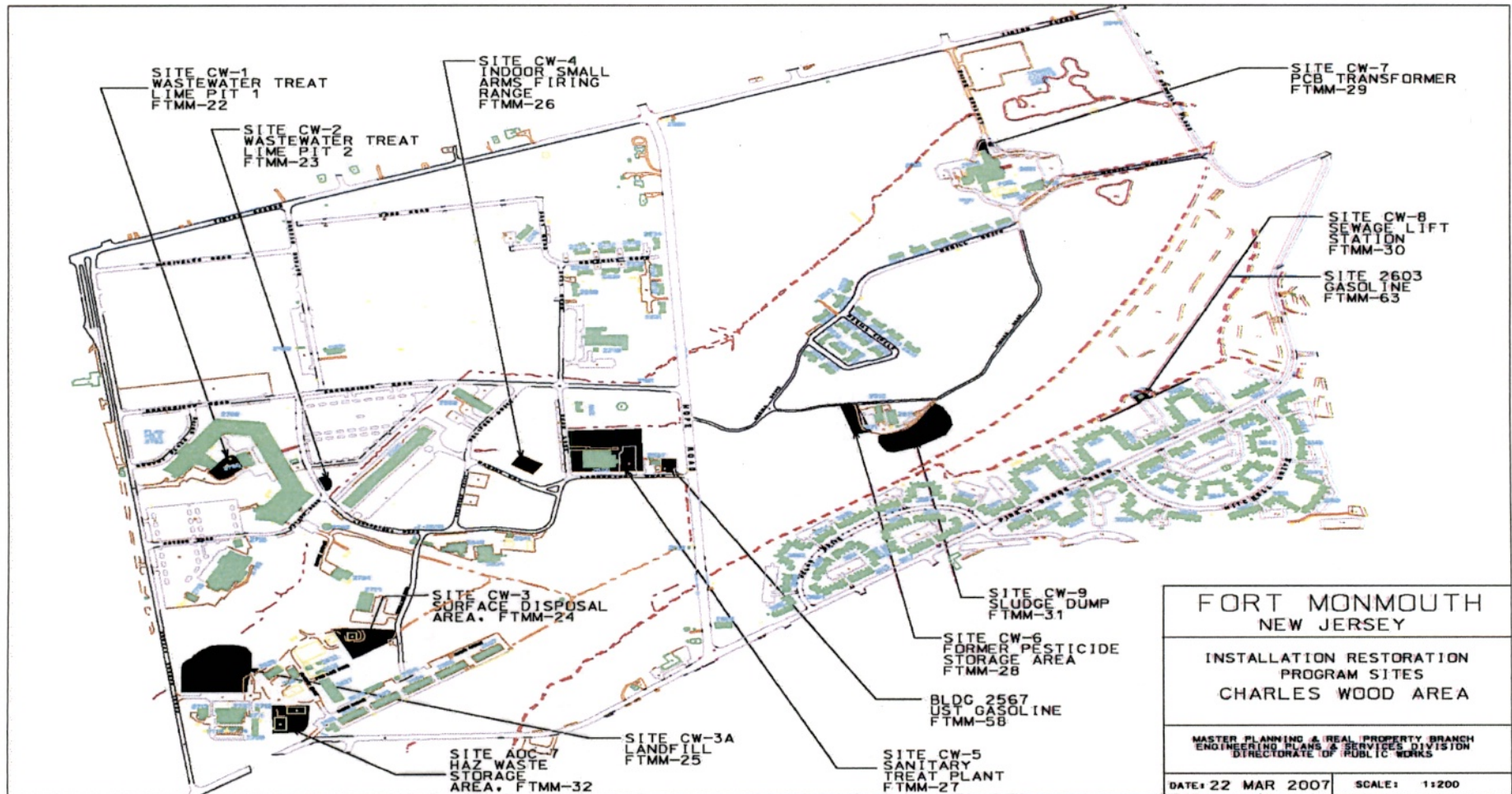
Fort Monmouth Installation Restoration Program (IRP) Update



Garrison Bottom Line...Customer Satisfaction



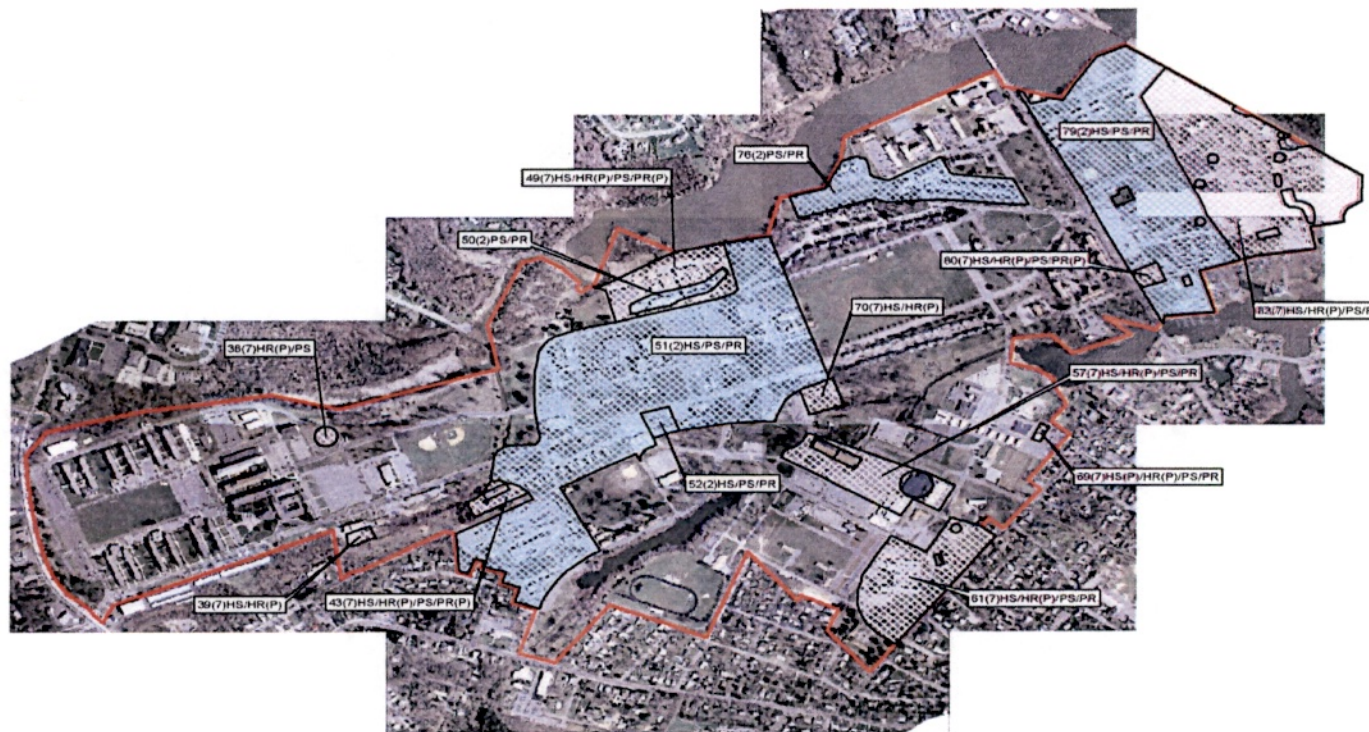
Fort Monmouth Installation Restoration Program (IRP) Update



Garrison Bottom Line...Customer Satisfaction



Fort Monmouth Installation Restoration Program (IRP) Update



LEGEND

Installation Boundary

ECP PARCEL CATEGORY DEFINITIONS

- 2 Areas where only release or disposal of petroleum products has occurred.
- 7 Areas that are not evaluated or require additional evaluation.

BRAC PARCEL LABEL DEFINITIONS

CONTAMINATION
 DESCRIPTION
 CATEGORY NUMBER
 PARCEL NUMBER



SCALE:
0 450 900 1,800
Feet



Base Realignment and Closure 2005



Shaw Environmental, Inc.

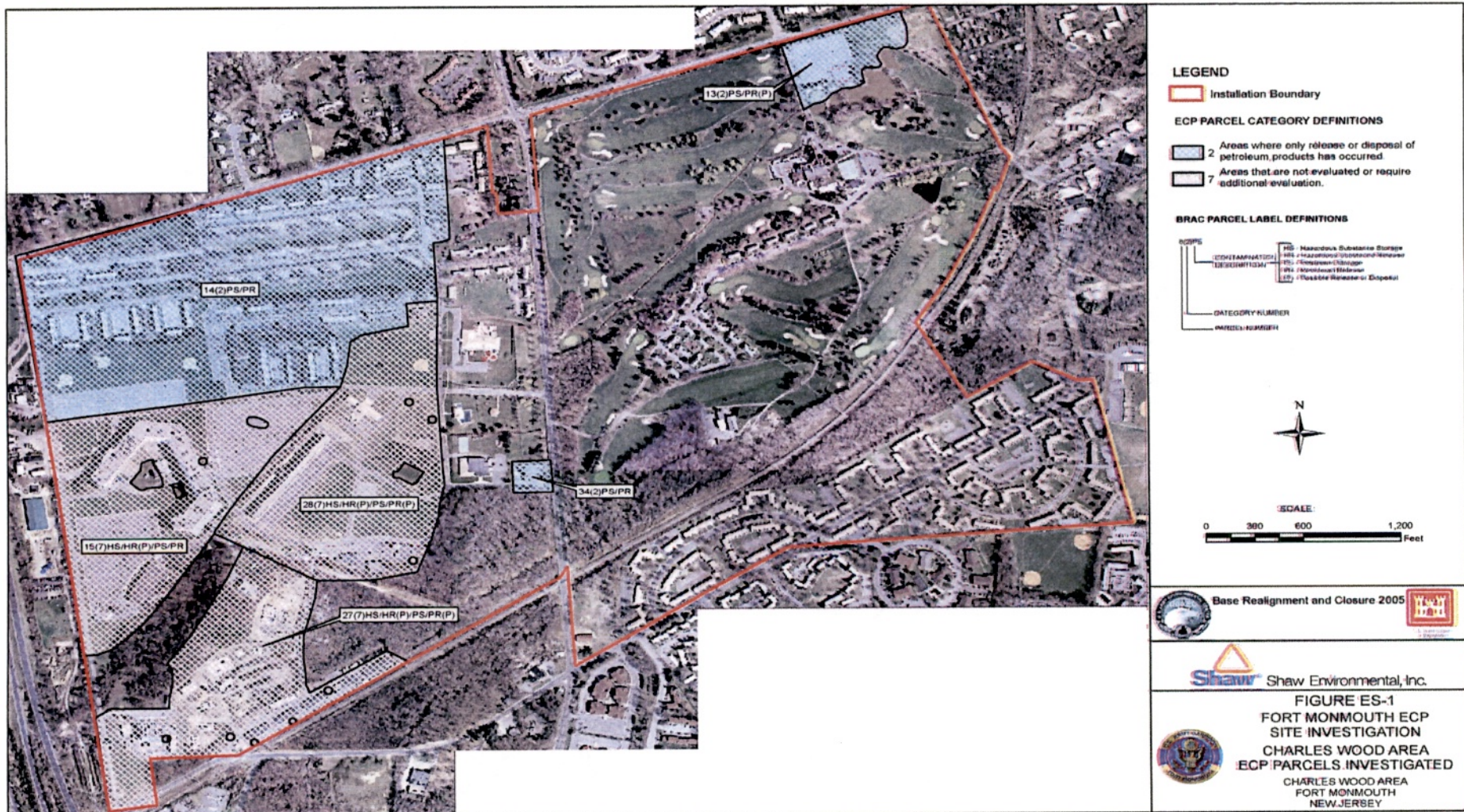


FIGURE ES-2
 FORT MONMOUTH ECP
 SITE INVESTIGATION
 MAIN POST
 ECP PARCELS INVESTIGATED
 MAIN POST
 FORT MONMOUTH
 NEW JERSEY

Garrison Bottom Line...Customer Satisfaction



Fort Monmouth Installation Restoration Program (IRP) Update



ArcGIS File: C:\NA_FigES-1_S1_ECP_Parcel_Investigated.mxd (7/14/2008 10:50:55 AM)

ES-12

Garrison Bottom Line...Customer Satisfaction

Unregulated Heating Oil Tank (UHOT) removal update



Parcel 76

Seven suspected UHOTS, six confirmed to date



Parcel 76-4
1000-gallon UHOT
925 gallons of oil and water were pumped out of the tank
No holes were found in the tank



Parcel 76-4

No contaminated soil was found, post excavation samples were collected and came back below regulatory levels



Parcel 76-4

Excavation was backfilled with clean sand
Topsoil, grass seed, and hay were applied to the area



Parcel 76-8
1000-gallon UHOT
525 gallons of oil and water were pumped out of the tank
No holes were found in the tank



Parcel 76-8

No contaminated soil was found, post excavation samples were collected and came back below regulatory levels.

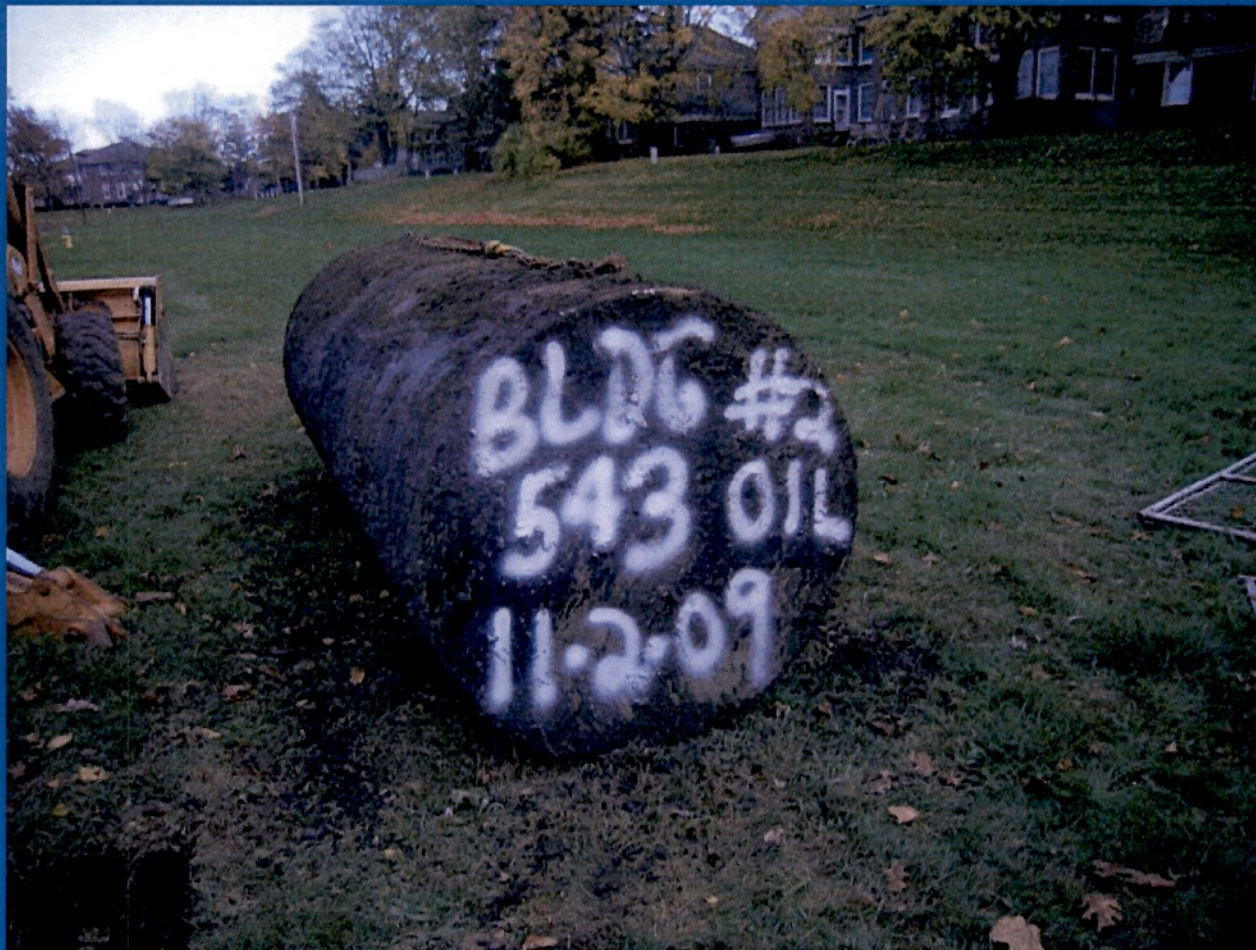


Parcel 76-9

1000-gallon UHOT



Parcel 76-9
Small holes and pitting noted during tank inspection



Parcel 76-9

Petroleum contamination found in the excavation



Parcel 76-9

Approximately 50 cubic yards of contaminated soil have been excavated, bottom, west, east and south walls are clean
Need to re-locate water and sewage utility lines to continue remediation on north wall



Parcel 76-9

Site will be fenced in and work will continue in April

Difficult to run utilities above ground during freezing weather



Parcel 76-12
1000-gallon UHOT
525 gallons of oil and water were pumped out of the tank



Parcel 76-12

Small holes and pitting noted during tank inspection



Site P76-12

100 cubic yards of petroleum contaminated soil were excavated from the site and transported to the soil pad adjacent to Building 490. Post excavation samples were collected and came back below regulatory levels.



Parcel 76-12

Site backfilled with clean bank run sand
Will apply topsoil and grass seed in spring



Parcel 76-13

1000-gallon UHOT was uncovered
900 gallons of oil and water were pumped out of the tank
UHOT was sealed and left in place and backfilled until utilities and be
re-located in April.



Parcel 76-16
1000-gallon UHOT
Small holes and pitting observed during tank inspection



Parcel 76-16

Petroleum contaminated soil and sheen observed on groundwater



Parcel 76-16

Approximately 50 cubic yards of contaminated soil have been excavated from the site

The north and west walls and the bottom are clean
Waiting on laboratory analysis for the south and east sidewalls.



Parcel 76-20

White flag represents where GPR data indicates there is a UHOT
Petroleum contamination was present in hand auger samples collected
in the area

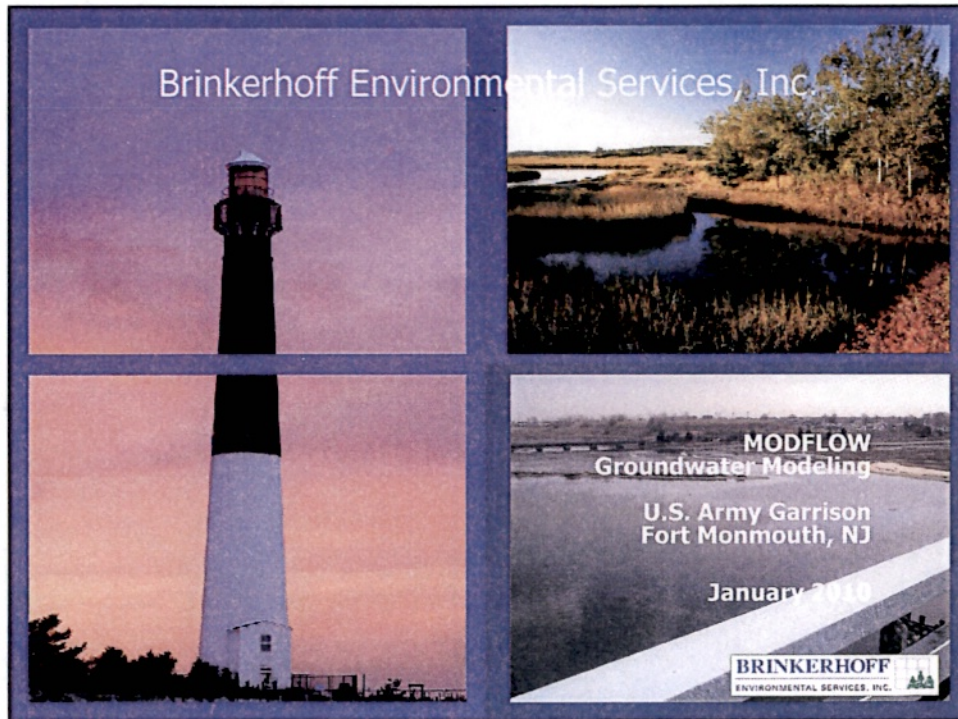
The samples were collected to find a clean location to re-locate the
utility pole



FUTURE WORK

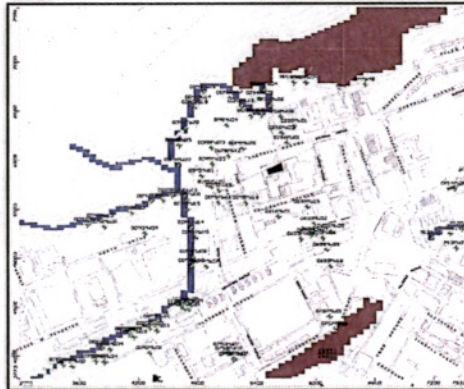
- Parcel 79 (400 Area baseball field)
- 4 Suspected UHOTS
- Utility mark out has been placed





MODFLOW Groundwater Modeling

- Groundwater Flow Simulation Software
- Developed by U.S. Geological Survey
- Being Used to Simulate Groundwater Flow at Fort Monmouth – "Big Picture"
- Will Be Used For Contaminant Transport Modeling – Classification Exception Areas (CEAs)
- Helpful in Selecting Monitoring Well Locations
- Provides Understanding of Factors Affecting Contaminant Migration



1-800-246-7358
www.brinkenv.com

2

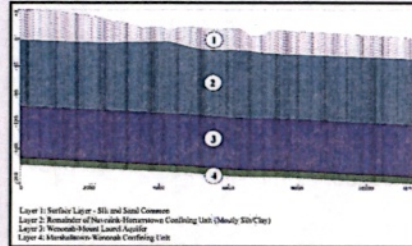
BRINKERHOFF
 ENVIRONMENTAL SERVICES, INC.

CREATING A GROUNDWATER MODEL

Conceptual Model

Evaluation of Geological Resources and Maps to Create a Conceptual Model

- Site-Specific Reports and Boring Logs (Base-Wide)
- Topographic Maps
- GIS System Data
- Published Geology Resources



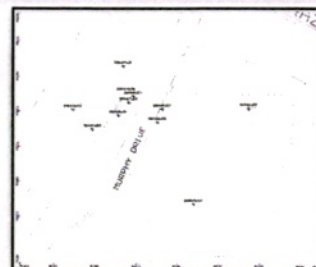
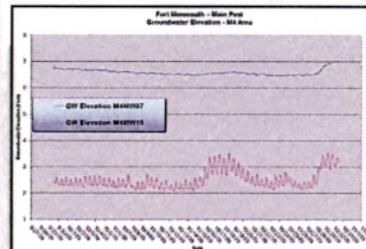
1-800-246-7358
www.brinkenv.com

3

BRINKERHOFF
ENVIRONMENTAL SERVICES, INC.

FIELD DATA GATHERING

- Groundwater Elevations from Monitoring Wells
- Evaluation of Tidal Effects
- Aquifer Testing (e.g. Hydraulic Conductivity)
- Contaminant Data
- Ongoing Work – Survey of Well Elevations, Depth to Water Measurements



1-800-246-7358
www.brinkenv.com

4

BRINKERHOFF
ENVIRONMENTAL SERVICES, INC.

SETUP GROUNDWATER SIMULATION

- Using the MODFLOW Software Elements, Create Simulation Based on Flow Patterns in Known Areas.



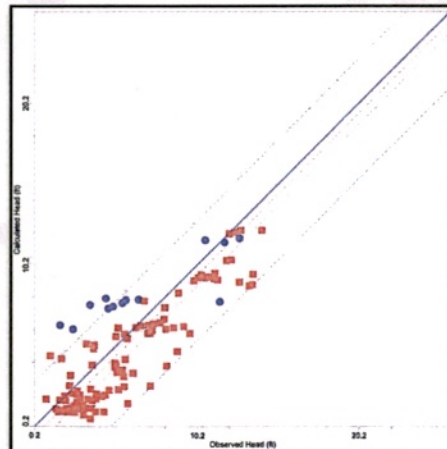
1-800-246-7358
www.brinkenv.com

5

BRINKERHOFF
ENVIRONMENTAL SERVICES, INC.

MODEL CALIBRATION

- Compare Model Simulated Flow with Field Data
- Make Adjustments to Model Settings To Improve "Fit"
- Gather Additional Field Data As Needed
- Rerun Model



1-800-246-7358
www.brinkenv.com

6

BRINKERHOFF
ENVIRONMENTAL SERVICES, INC.

NEXT PHASE REQUIREMENTS

- Select Data Needed to Improve Model Accuracy
- Create "Child Models" for Area Specific Analysis
- Prepare CEAs
- Repeat Process for Charles Wood Area
- Install Additional Monitoring Wells to Comply with NJDEP Requirements (Upgradient, Downgradient, Sidegradient)

1-800-246-7358
www.brinkenv.com

7

