

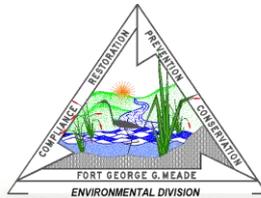
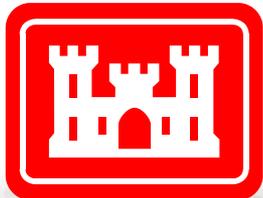


# Fort George G. Meade



## Groundwater Contamination, Odenton, Maryland Interim Measures Update

Restoration Advisory Board Meeting  
January 20, 2011

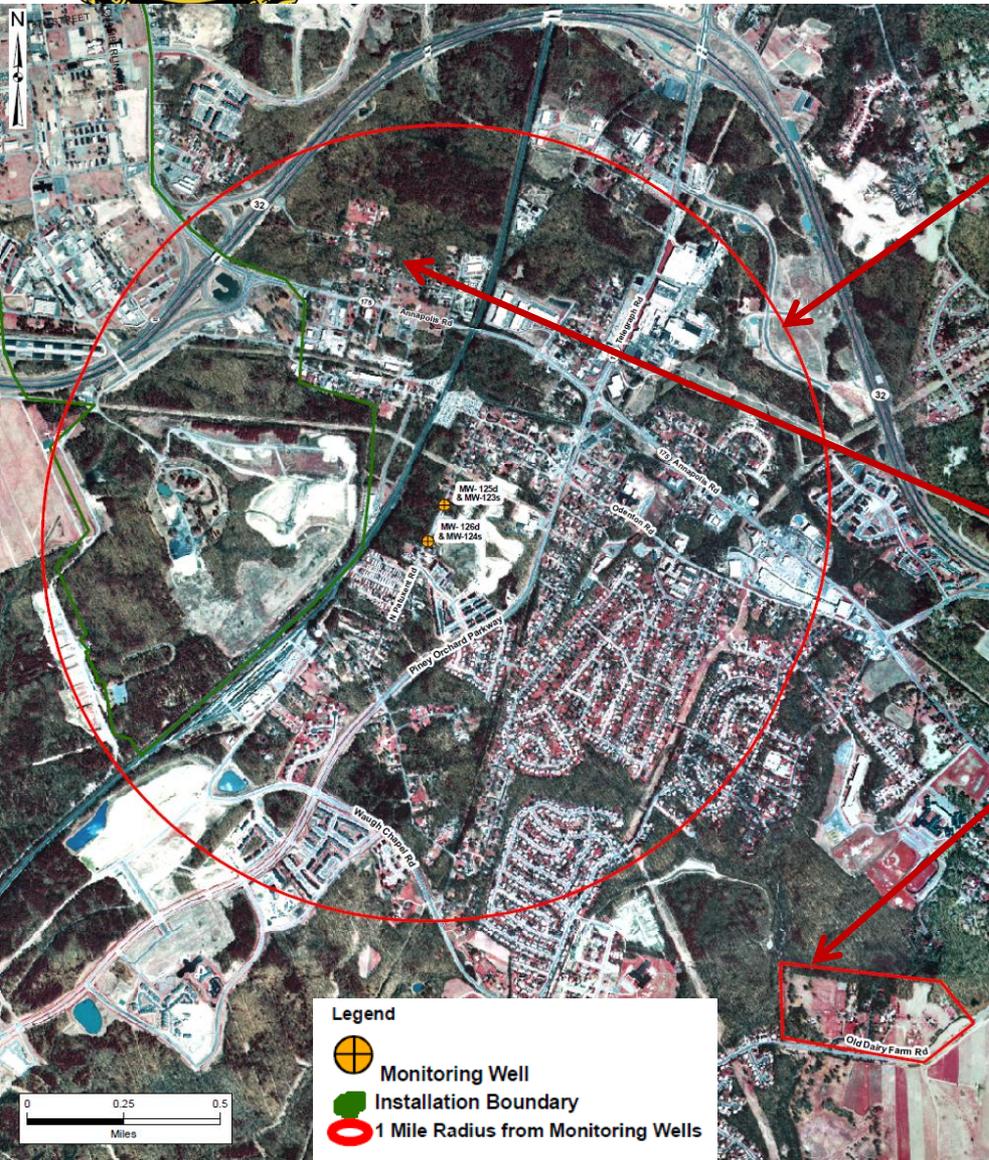




# Study Areas



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- 1-mile radius surrounding monitoring wells MW-125d/123s & MW-126d/124s located at the intersection of North Patuxent Road and Dovetail Lane, Odenton
- Nevada Ave, Odenton
- Old Dairy Farm Road, Gambrills





# Drinking Water Well Survey



- Initiated April 29, 2009
- Over 2,500 properties
- Results; 1,695 surveys answered
  - 75 Confirmed Primary Drinking Water Source
  - 1,599 Confirmed No Well on Property
- Final Letter Campaign
  - 12 Certified letters sent to owners/tenants to confirm decision to decline participation (8 June 2010)
  - 11 Confirmed delivery
    - One new property on Old Dairy Farm Road added to sampling schedule
    - One property owner declined (no well on property)
    - No response from nine (i.e., No signed “Statements Declining Participation” received to date)
- USEPA confirmed the Drinking Water Well Survey outreach effort complete (17 September 2010)





# Monitoring Well Results



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Analytes	Maximum Contaminant Level (MCL)	MW-125d	2004 Results	2005 Results	2008 Results	March 2009 Results	June 2009 Results	MW-126d	2004 Results	2005 Results	2008 Results	March 2009 Results	June 2009 Results
<b>METALS</b>													
Lead	15		<b>16.3</b>	ND	NT	NT	NT		14.4	ND	NT	NT	NT
Thallium	2		<b>6.9</b>	ND	NT	NT	NT		ND	ND	NT	NT	NT
<b>VOLATILE ORGANICS</b>													
Acetone	-		49.2	120	ND	ND	ND		ND	ND	ND	ND	ND
CCl <sub>4</sub>	5		<b>21.3</b>	<b>20</b>	<b>25</b>	<b>20.3</b>	<b>17.0</b>		4.1	3	<b>51</b>	<b>21.8</b>	<b>65.8</b>
Chloroform	-		0.85J	0.8	1J	ND	1.0		0.43J	0.29	2J	ND	1.6
DCE	70		ND	ND	<0.8	ND	ND		0.42J	2.3	3J	0.69J	2.3
PCE	5		2.8	1.2	<b>5</b>	0.66J	ND		<b>12.4</b>	<b>6.5</b>	<b>51</b>	<b>11.5</b>	<b>31.4</b>
Toluene	1,000		0.36J	1.8	ND	ND	ND		0.5J	ND	ND	ND	ND
TCE	5		0.5	0.28	1 J	ND	ND		3.5	2.4	<b>16</b>	4.9	<b>13.1</b>

Analytes	MW-123s	2004 Results	March 2009 Results	June 2009 Results	MW-124s	2004 Results	March 2009 Results	June 2009 Results
METALS		All Below MCLs	NT	NT		All Below MCLs	NT	NT
VOLATILE ORGANICS		Dry Well	All ND	All ND		All ND	All ND	All ND

All results in micrograms per liter (ug/L)

NT = Not Tested

ND = Not Detected

CCl<sub>4</sub> = Carbon Tetrachloride

DCE = cis-1,2-Dichloroethene

PCE = Tetrachloroethene

TCE = Trichloroethene





# Interim Measures Progress



- Drinking water well survey outreach effort complete
  - USEPA concurrence received 17 September 2010
- Drinking water well sampling completed for all interested properties (two rounds)
- Bottled water supply continues
- Nevada Avenue monthly sampling continues
  - Initiated in October 2009 for property with PCE MCL exceedance and 2 adjacent properties
  - One additional PCE MCL exceedance to date (Feb10)
  - Two detections equal to PCE MCL (Nov09, Jun10)





# Nevada Avenue Monthly Sampling - Interim Results



Month	Dichloroethene (MCL - 70 µg/L)		Tetrachloroethene (MCL - 5 µg/L)		Trichloroethene (MCL - 5 µg/L)		Toluene (MCL - 1,000 µg/L)		Total Xylenes (MCL - 10,000 µg/L)		mp-Xylene (No MCL)	
	Detections / Samples	Range (µg/L)	Detections / Samples	Range (µg/L)	Detections / Samples	Range (µg/L)	Detections / Samples	Range (µg/L)	Detections / Samples	Range (µg/L)	Detections / Samples	Range (µg/L)
Dec 09	3/3	1.7-1.9K	3/3	3.6-4.6	3/3	0.52J-0.68J	0/3	--	0/0	--	0/0	--
Jan 10	2/2	1.4-1.6	2/2	3.8-4.9	0/2	--	0/3	--	0/0	--	0/0	--
Feb 10	3/3	1.4-1.9	3/3	4.4- <b>5.3</b>	3/3	0.57J/0.85J	0/3	--	0/0	--	0/0	--
Mar 10	3/3	1.2J-1.5J	3/3	3.3J-4.3J	3/3	0.48J-0.51J	0/3	--	0/0	--	0/0	--
Apr 10	3/3	1.6-1.7	3/3	3.8-4.2	3/3	0.61J-0.68J	0/3	--	0/0	--	0/0	--
May 10	3/3	1.5-1.6	3/3	4.2-4.5	0/3	--	0/3	--	0/0	--	0/0	--
Jun 10	3/3	1.6-1.8	3/3	4.1-5.0	3/3	0.57J-0.71J	0/3	--	0/0	--	0/0	--
Jul 10	3/3	1.3-1.7	3/3	3.7-4.2	3/3	0.42J-0.7J	1/3	2.0	0/0	--	0/0	--
Aug 10	3/3	1.4-1.6	3/3	3.5-3.9	1/3	0.53J	1/3	0.49J	0/0	--	0/0	--
Sep 10	3/3	1.2-1.3	3/3	3.2-3.4	3/3	0.42J-0.6J	1/3	0.22J	1/3	0.66J	1/3	0.66J
Oct 10	3/3	0.82J-1.1	3/3	3.3-3.6J	2/3	0.49J-0.51J	0/3	--	0/3	--	0/3	--
Nov 10	3/3	1.1-1.6	3/3	3.2-3.8	2/3	0.41J-0.59J	0/3	--	0/3	--	0/3	--
Dec 10	3/3	1.1J-1.4	3/3	3.0J-3.9	2/3	0.40J-0.53J	0/3	--	0/3	--	0/3	--

**Data Qualifiers:** K = reported value may be biased high J= estimated concentration below the method detection limit



# Next Steps



- Interim Measures Reporting
  - Internal Draft Interim Measures Report - 18 Nov 2010
  - Draft Interim Measures Report – February 2011
  - Draft Final Interim Measures Report – April 2011
  - Final Interim Measures Report – June 2011
- Nevada Avenue Investigation
  - Work Plan
    - Internal Draft submitted October 2010
    - Draft due January 2011
    - Draft Final due April 2011
    - Final due June 2011
  - Field work (i.e., monitoring well installation & sampling)
    - June – July 2011



# Follow-on Work

## Nevada Avenue Groundwater Investigation



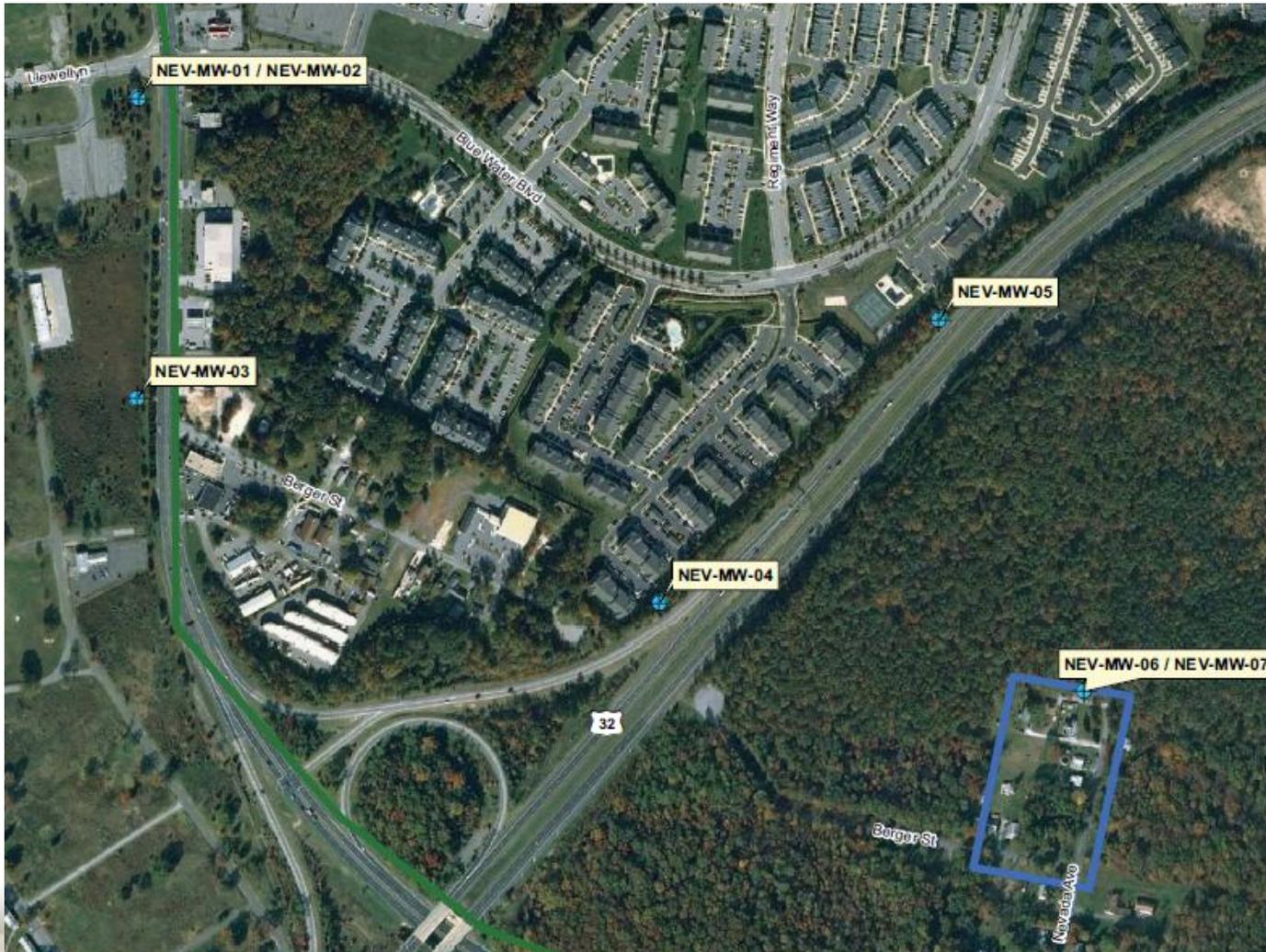
- Notification to Proceed issued 30 June 2010
- Scope of Work:
  - Continue to sample Nevada Avenue private wells monthly
  - Installation of up to 7 monitoring wells
    - 5 deep
    - 2 shallow
  - Historical research on potential sources
  - Continuation of bottled water supply
  - Public outreach
  - Reporting



# Proposed New Monitoring Well Locations



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# Points of Contact



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