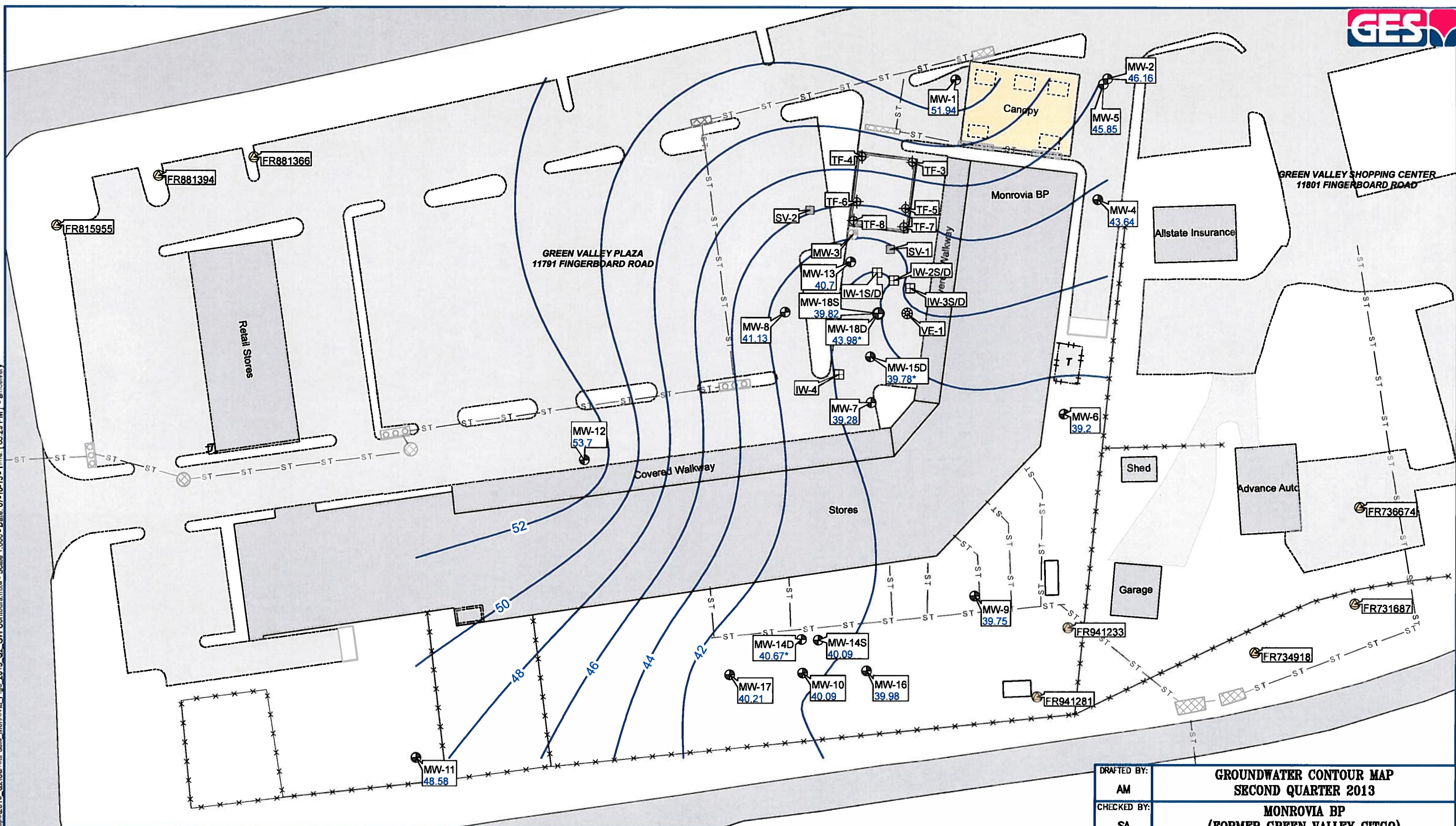


**Appendix M** Groundwater Flow Assessment Materials

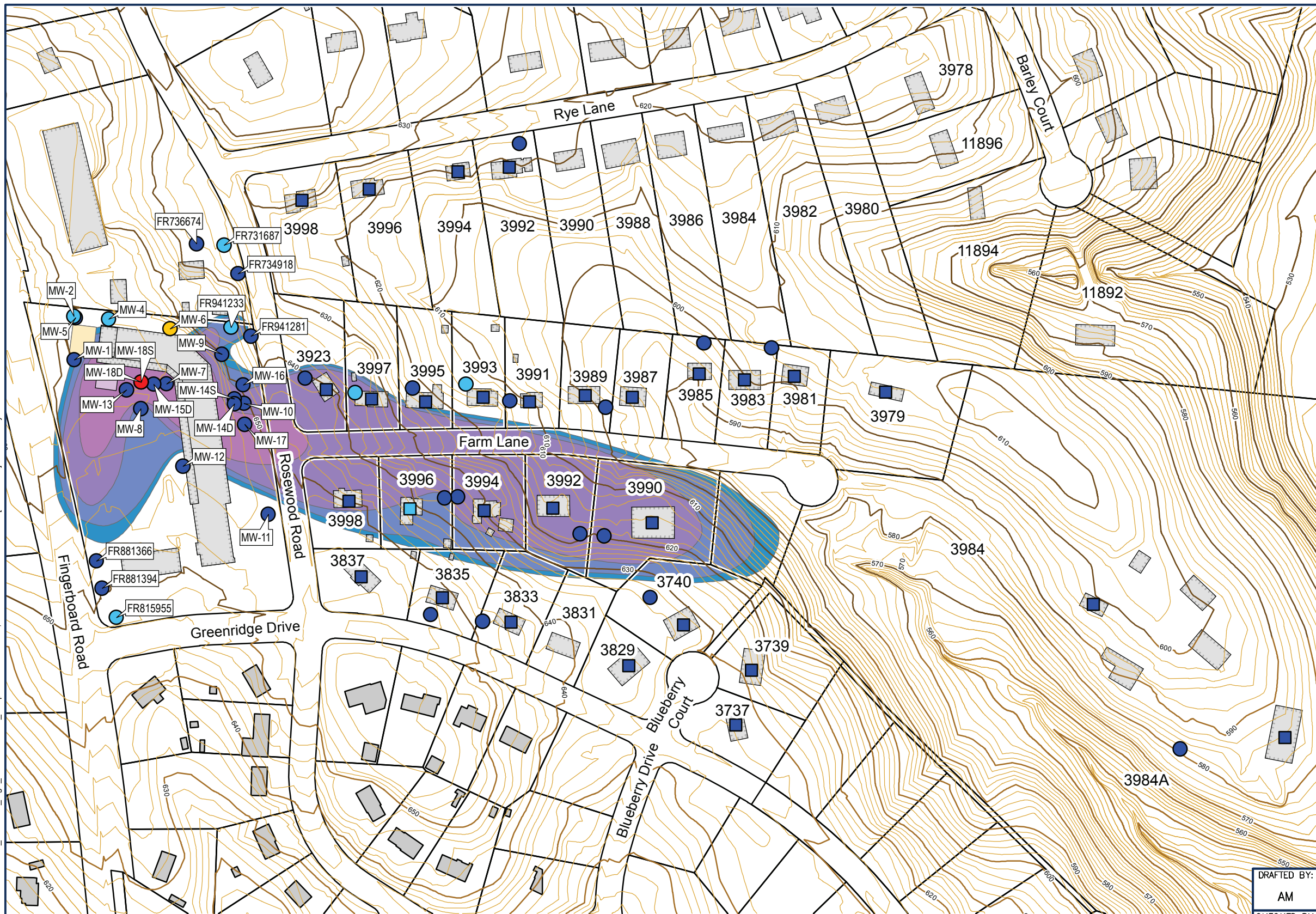
P:\Carroll\Fuels\Monrovia\GIS\Mapst2013\_02\Carroll\Fuels\Monrovia.Fig3\_2013\_02\_GWContours.mxd - Scale 1,600 - Date: 07-18-13 - Time: 03:29 PM - amcelvry



Legend	
Abandoned Well	Abandoned Soil Vapor Point
Monitoring Well	Injection Well
Potable Well	Nested Obs Well
Tank Field Well	Vapor Extraction Well
Fence	Storm Sewer
Curb Catch Basin	Catch Basin
Groundwater Contours	Building
48.58 Groundwater Elevation	Canopy
40.67 Groundwater Elevation Not Used for Contouring	Dispenser
Propane AST	Pump Room
Transformer	Dumpster
Tank Field	

Source:  
NAIP aerial photograph for Frederick Co. Based on GIS data provided by Environmental Alliance, Inc.

DRAFTED BY: AM	<b>GROUNDWATER CONTOUR MAP SECOND QUARTER 2013</b>	
CHECKED BY: SA	<b>MONROVIA BP (FORMER GREEN VALLEY CITGO) 11791 FINGERBOARD ROAD MONROVIA, MARYLAND</b>	
REVIEWED BY: GR	Groundwater & Environmental Services, Inc. 1350 BLAIR DRIVE, SUITE A, ODENTON, MD 21113	
NORTH 	SCALE IN FEET 	DATE 7-18-13
		FIGURE 3



**Legend**

- Building
- Canopy
- Tank Field
- Index Contour
- Intermediate Contour

**Total Chromium Concentration**

- Influent**
- 60 to 80 ppb
  - 40 to 60 ppb
  - 20 to 40 ppb
  - ND to 20 ppb
  - ND

**Total Chromium Concentration**

- Point Use**
- 60 to 80 ppb
  - 40 to 60 ppb
  - 20 to 40 ppb
  - ND to 20 ppb
  - ND

**Historical Maximum MTBE Concentration**

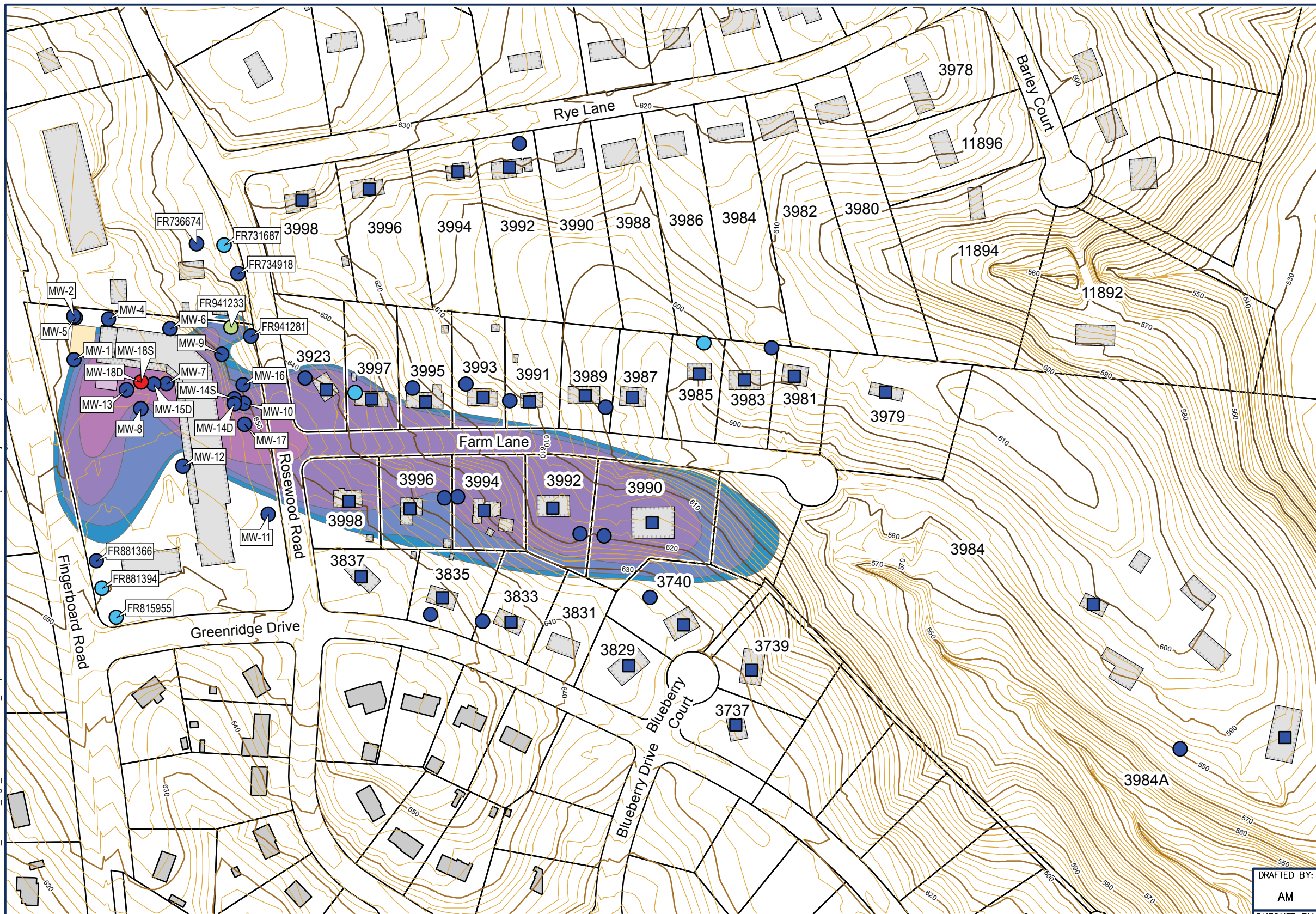
- MTBE - Methyl Tertiary Butyl Ether
- 20 to <100 ppb
  - 100 to <1,000 ppb
  - 1,000 to <10,000 ppb
  - 10,000 to <100,000 ppb

P:\CarrollFuels\Monrovia\GIS\Maps\201208\CarrollFuels\_Monrovia\_Fig8\_TotalChromium\_wTopo.mxd - Scale 1:2397 - Date: 09-26-12 - Time: [ 04:58 PM ] - amcelvery

Source:  
NAIP aerial photograph for Frederick Co. Based on GIS data provided by Environmental Alliance, Inc.

**Note:**  
1. The maximum measured concentration between MW-18S and MW-18D is plotted on the figure, see analytical results table for individual concentration values

DRAFTED BY:	AUGUST 2012 TOTAL CHROMIUM CONCENTRATION WITH MAXIMUM MTBE DISTRIBUTION		
AM	<b>MONROVIA BP (FORMER GREEN VALLEY CITGO) 11791 FINGERBOARD ROAD MONROVIA, MARYLAND</b>		
CHECKED BY:			
JW			
REVIEWED BY:	Groundwater & Environmental Services, Inc.		
GR	2142 PRIEST BRIDGE COURT, SUITE 1, CROFTON, MD 21114		
NORTH	SCALE IN FEET	DATE	FIGURE
		9-26-12	6



**Legend**

- Building
- Canopy
- Tank Field
- Index Contour
- Intermediate Contour

**Dissolved Chromium Concentration**  
Influent

- 40 to 60 ppb
- 20 to 40 ppb
- 5 to 20 ppb
- ND to 5 ppb
- ND

**Dissolved Chromium Concentration**  
Point Of Use

- 40 to 60 ppb
- 20 to 40 ppb
- 5 to 20 ppb
- ND to 5 ppb
- ND

**Historical Maximum MTBE Concentration**  
MTBE - Methyl Tertiary Butyl Ether

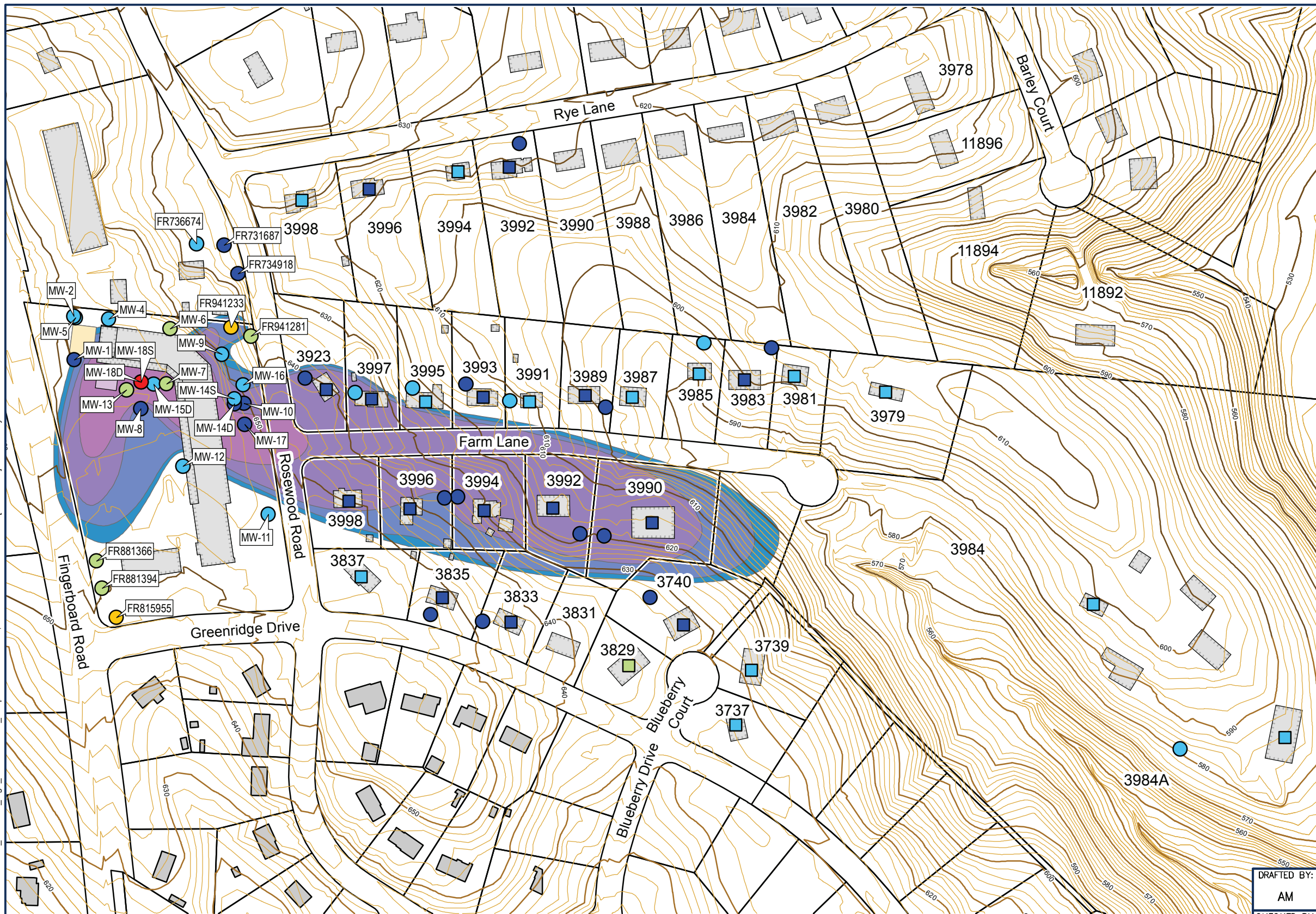
- 20 to <100 ppb
- 100 to <1,000 ppb
- 1,000 to <10,000 ppb
- 10,000 to <100,000 ppb

P:\CarrollFuels\Monrovia\GIS\Maps\201208\CarrollFuels\_Monrovia\_Fig7\_DissolvedChromium\_w\Topo.mxd - Scale 1:2,397 - Date 09-26-12 - Time: [05:00 PM] - ancvalery

Source:  
NAIP aerial photograph for Frederick Co. Based on GIS data provided by Environmental Alliance, Inc.

**Note:**  
1. Point Of Use Samples all Non-Detect  
2. The maximum measured concentration between MW-18S and MW-18D is plotted on the figure, see analytical results table for individual concentration values

DRAFTED BY: AM	<b>AUGUST 2012 DISSOLVED CHROMIUM CONCENTRATION WITH MAXIMUM MTBE DISTRIBUTION</b>		
CHECKED BY: JW	<b>MONROVIA BP (FORMER GREEN VALLEY CITGO) 11791 FINGERBOARD ROAD MONROVIA, MARYLAND</b>		
REVIEWED BY: GR	Groundwater & Environmental Services, Inc. 2142 PRIEST BRIDGE COURT, SUITE 1, CROFTON, MD 21114		
NORTH	SCALE IN FEET 	DATE 9-26-12	FIGURE 7



**Legend**

- Building
- Canopy
- Tank Field
- Index Contour
- Intermediate Contour

**Hexavalent Chromium Concentration Influent**

- >10 ppb
- 1.0 to 10 ppb
- 0.10 to 1.0 ppb
- 0.02 to 0.10 ppb
- ND (0.02)

**Hexavalent Chromium Concentration Point Of Use**

- >10 ppb
- 1.0 to 10 ppb
- 0.10 to 1.0 ppb
- 0.02 to 0.10 ppb
- ND (<0.20)

**Historical Maximum MTBE Concentration**  
MTBE - Methyl Tertiary Butyl Ether

- 20 to <100 ppb
- 100 to <1,000 ppb
- 1,000 to <10,000 ppb
- 10,000 to <100,000 ppb

P:\CarrollFuels\Monrovia\GIS\Maps\201208\CarrollFuels\_Monrovia\_Fig6\_HexChromium\_w\Topo.mxd - Scale 1:2,397 - Date: 09-26-12 - Time: [ 05:01 PM ] - amcelvery

Source:  
NAIP aerial photograph for Frederick Co. Based on GIS data provided by Environmental Alliance, Inc.

**Note:**  
1. The maximum measured concentration between MW-18S and MW-18D is plotted on the figure, see analytical results table for individual concentration values

DRAFTED BY: AM	<b>AUGUST 2012 HEXAVALENT CHROMIUM CONCENTRATION WITH MAXIMUM MTBE DISTRIBUTION</b>		
CHECKED BY: JW	<b>MONROVIA BP (FORMER GREEN VALLEY CITGO) 11791 FINGERBOARD ROAD MONROVIA, MARYLAND</b>		
REVIEWED BY: GR	Groundwater & Environmental Services, Inc. 2142 PRIEST BRIDGE COURT, SUITE 1, CROFTON, MD 21114		
NORTH	SCALE IN FEET 	DATE 9-26-12	FIGURE 8