



March 25, 2011

Lynn Nakashima
Project Manager
Department of Toxic Substances Control
700 Heinz Avenue
Berkeley, CA 94710

**Subject: Proposed Continued Groundwater Monitoring Locations
University of California, Berkeley, Richmond Field Station, Richmond, California**

Dear Ms. Nakashima:

Tetra Tech EM Inc. (Tetra Tech) was contracted by the University of California (UC) Berkeley to conduct sampling activities at Richmond Field Station (RFS), in Richmond, California. The scope of the sampling was outlined in the Phase I Groundwater Field Sampling Workplan, dated June 2, 2010, and the results of the investigation were presented in the Phase I Groundwater Sampling Results Technical Memorandum, dated January 12, 2011. The Phase I groundwater field effort was conducted to address data gaps through the installation of 51 piezometers throughout the RFS. Data collected from the developed piezometers included groundwater sample analyses, geological borehole logging, and depth to water measurements; all of which were used to develop a hydrogeologic model of the site, improve the understanding of overall site-wide groundwater quality, to help confirm or deny the presence of contamination.

As a follow up to the initial groundwater investigation, UC Berkeley is proposing to sample the 50 shallow zone piezometers in April 2011. These 50 piezometers include the 47 shallow piezometers installed by UC Berkeley during 2010, and three piezometers (PZ8, PZ9, and PZ11) previously installed by Zeneca. The purpose of the continued monitoring is to evaluate chemical concentrations and groundwater elevations during wet season conditions. Piezometer locations are shown on Figure 1, Proposed Monitoring Locations. Groundwater elevation data collected site wide in February 2011 show that groundwater elevations have increased by approximately 0.5 and 2.5 feet across RFS since the November 2010 monitoring event. Figures 2 and 3 present the inferred groundwater contours for the November 2010 and February 2011 monitoring events, respectively. The April sampling schedule is intended to be concurrent with the ongoing biannual sampling at the adjacent Campus Bay site.

Sample Locations

Following review of the analytical data from the initial investigation, all 50 previously sampled locations were selected for continued monitoring of dissolved metals (filtered), volatile organic compounds (VOC), total dissolved solids (TDS), semivolatile organic compounds (SVOC), polycyclic aromatic hydrocarbons (PAH); and total petroleum hydrocarbons (TPH). Unfiltered metals analysis will also be conducted from groundwater collected at piezometers FG, B474, EERC, PZ11, B195, CCC2, WTA, B183, ETA, Bulb1, and Bulb2 to confirm unfiltered concentrations identified during the initial investigation.

During the initial round of sampling conducted between September 3 and October 19, 2010, poor groundwater recharge prohibited sample collection at piezometer B450. This location will be sampled for dissolved metals, VOCs, TDS, SVOCs, PAHs, and TPH. If groundwater recharge is still slow, this piezometer will be purged one day and sampled on the following day without purging again.

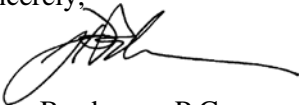
Field Sampling Protocols

The groundwater samples will be collected consistent with the protocols outlined in the Field Sampling Workplan dated June 2, 2010 and will follow the quality control measures for both field work and data analysis as outlined in the accompanying Quality Assurance Project Plan. Samples will be analyzed for dissolved metals (filtered), total metals (unfiltered), VOCs, TDS, SVOCs, PAHs, and TPH at locations described above. A silica gel cleanup will be run on the extractable TPH samples for this round of sampling. No samples will be analyzed for pesticides or polychlorinated biphenyls (PCB) because these analytes were not detected in any samples collected during the initial round of sampling. Prior to sampling, the piezometers will be purged and monitored for stabilized parameters consistent with the Field Sampling Workplan.

Depth to groundwater will be measured at all 50 shallow and four deeper piezometers during the sampling and will coincide with a similar field event occurring on the adjacent Campus Bay property. The depth to groundwater will be measured from the top of the PVC casing to 0.01 foot accuracy using a water level meter.

If you have any questions or comments regarding this submittal, please call me at (510) 302-6283.

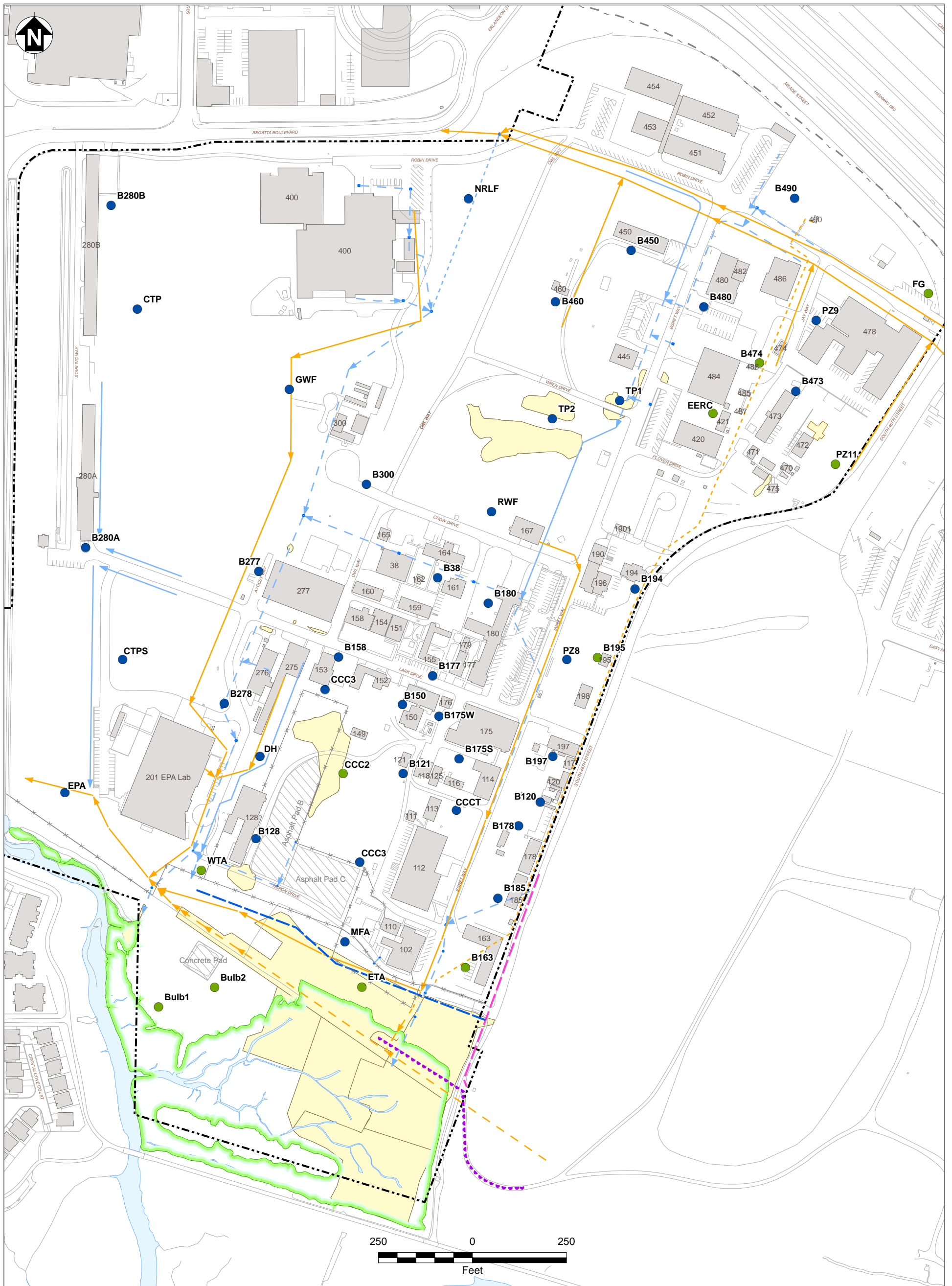
Sincerely,




Jason Brodersen, P.G.
Project Manager

cc:

Anthony Garvin, UC Office of the General Counsel
Greg Haet, UC Berkeley Office of Environment, Health and Safety
Bill Marsh, Edgcomb Law Group
Daren Roth, Arcadis, Inc.
Doug Mosteller, CSV



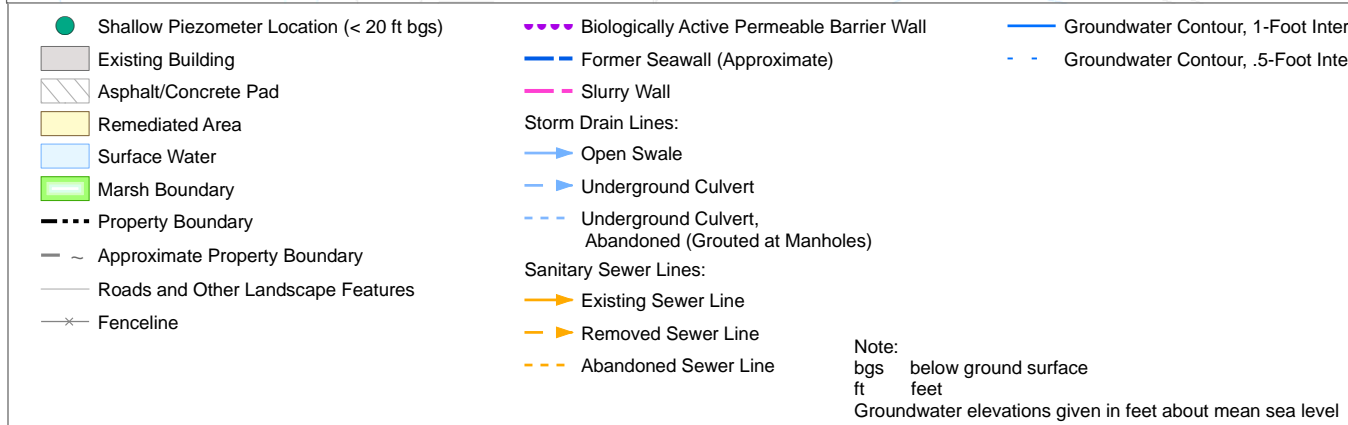
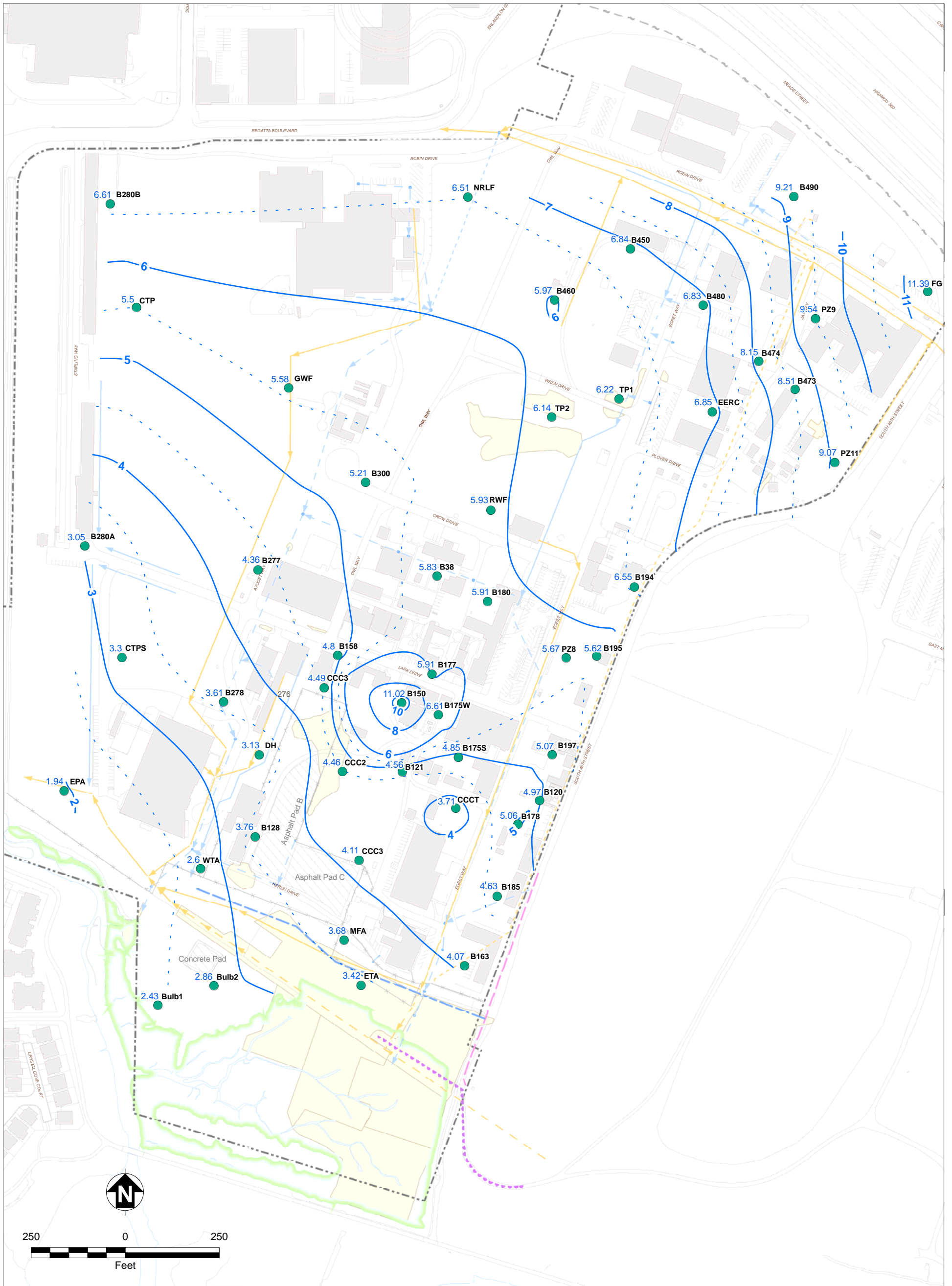
<ul style="list-style-type: none"> Existing Buildings Asphalt/Concrete Pads Remediated Areas Surface Water Marsh Boundary Property Boundary Approximate Property Boundary Roads and Other Landscape Features Fenceline 	<ul style="list-style-type: none"> Biologically Active Permeable Barrier Wall Former Seawall (Approximate) Slurry Wall Storm Drain Lines: <ul style="list-style-type: none"> Open Swale Underground Culvert Underground Culvert, Abandoned (Grouted at Manholes) Sanitary Sewer Lines: <ul style="list-style-type: none"> Existing Sewer Line Removed Sewer Line Abandoned Sewer Line 	<ul style="list-style-type: none"> Dissolved Metals Sampling Location Total and Dissolved Metals Sampling Location
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Richmond Field Station
University of California, Berkeley

FIGURE 1
GROUNDWATER SAMPLING
LOCATIONS

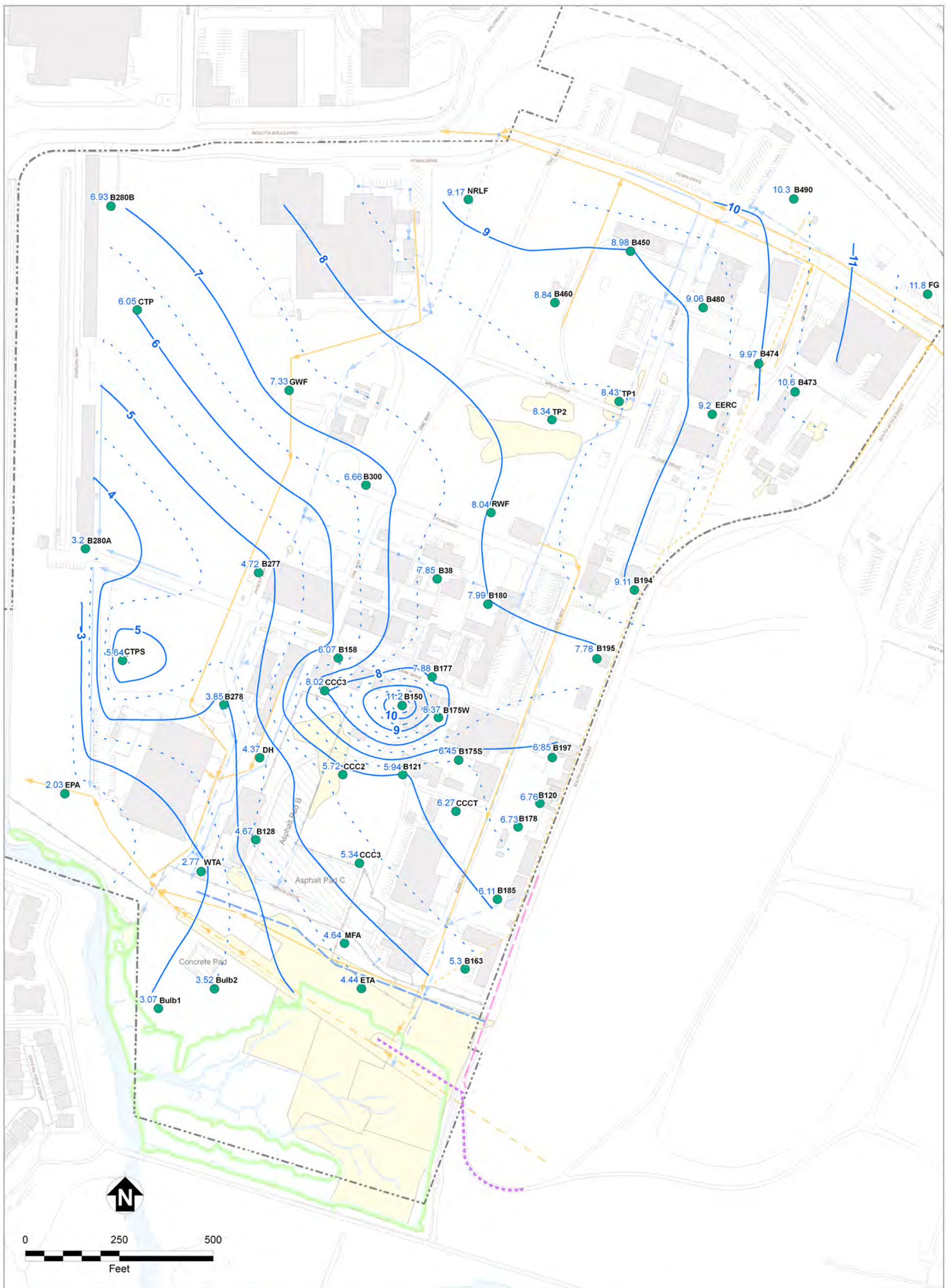
Continued Groundwater Monitoring Locations



**Richmond Field Station
University of California, Berkeley**

**FIGURE 2
SHALLOW GROUNDWATER
ELEVATION CONTOURS,
NOVEMBER 1, 2010**

Continued Groundwater Monitoring Locations



- Shallow Piezometer Location (< 20 ft bgs)
- Existing Building
- Asphalt/Concrete Pad
- Remediated Area
- Surface Water
- Marsh Boundary
- Property Boundary
- Approximate Property Boundary
- Roads and Other Landscape Features
- Fenceline

- - - Biologically Active Permeable Barrier Wall
- - - Former Seawall (Approximate)
- - - Slurry Wall
- Storm Drain Lines:
 - Open Swale
 - Underground Culvert
 - - - Underground Culvert, Abandoned (Grouted at Manholes)
- Sanitary Sewer Lines:
 - Existing Sewer Line
 - - - Removed Sewer Line
 - - - Abandoned Sewer Line

- Groundwater Contour, 1-Foot Interval
- - - Groundwater Contour, .5-Foot Interval

Note:
 bgs below ground surface
 ft feet
 Groundwater elevations given in ft above mean sea level



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FIGURE 3
SHALLOW GROUNDWATER
ELEVATION CONTOURS,
FEBRUARY 10, 2011

Continued Groundwater Monitoring Locations