

September 10, 2014

Ms. Elizabeth Werner
Hydrogeologist
NCDENR- SWS
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

**RE: Groundwater Monitoring Network Adjustment
Wake Reclamation, LLC – Brownfield Road CDLF (Permit No. 92-31)
Raleigh, North Carolina**

Dear Ms. Werner:

Smith Gardner, Inc. (S+G) on behalf of Wake Reclamation, LLC (a subsidiary of Waste Industries USA, Inc.) is pleased to present this brief letter request for adjustments to the groundwater monitoring plan. As we previously discussed, the current Water Quality Monitoring Plan (WQMP) for Brownfield Road C&D Landfill includes monitoring locations that are hydraulically inconsistent with the groundwater regime at the site. A discussion of proposed monitoring network alterations is presented below.

In the Permit to Construct Application approved in 2011, three additional groundwater monitoring wells were proposed for Phase 2 (see **Figure 1**). These include MW-8, MW-9s and MW-9d. The proposed location for MW-8 is as a second upgradient well for the site. The existing background well, MW-1, has maintained integrity and continues to be sufficient for upgradient well analysis. Therefore, MW-8 is considered to be a redundant upgradient well that is not necessary for groundwater monitoring at the site. Proposed monitoring wells MW-9s and MW-9d are situated cross-gradient of the site and groundwater flow from the waste unit is not toward these proposed locations. Additionally, the proposed locations are over 500 feet from the nearest waste boundary (as of construction of Phase 2A Cell 2). Due to the distance of these wells from the waste unit, and their location cross-gradient of the waste unit, we believe these wells are not necessary for proper monitoring of the site at this time.

Finally, after our review of the existing monitoring network, we noted the following:

- Monitoring wells MW-7Ad and MW-7As are located cross-gradient of the landfill. Based on existing site conditions they are not currently monitoring groundwater flow from the landfill.
- MW-6Ad is also a cross-gradient, which provides little benefit as a deep well location.

These wells have been included in the monitoring network since June 2012. Since then no VOCs have been reported in samples from these locations. Based on their hydraulic locations across the site, and, in the case of MW-6Ad and MW-7Ad are constructed in the bedrock aquifer, we request to remove these wells from the monitoring network. These wells will not be abandoned but will remain in place for possible future monitoring if deemed necessary by changing conditions and groundwater depth measurements.

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Because permit 92-31 expires January 28, 2016 we prefer to modify the monitoring network via this request and submit a revised Water Quality Monitoring Plan as part of the upcoming permit renewal package.

Please contact us at (919) 828-0577 or by email (below) at your earliest convenience if you have questions, or require additional information.

Sincerely,
SMITH GARDNER, INC.



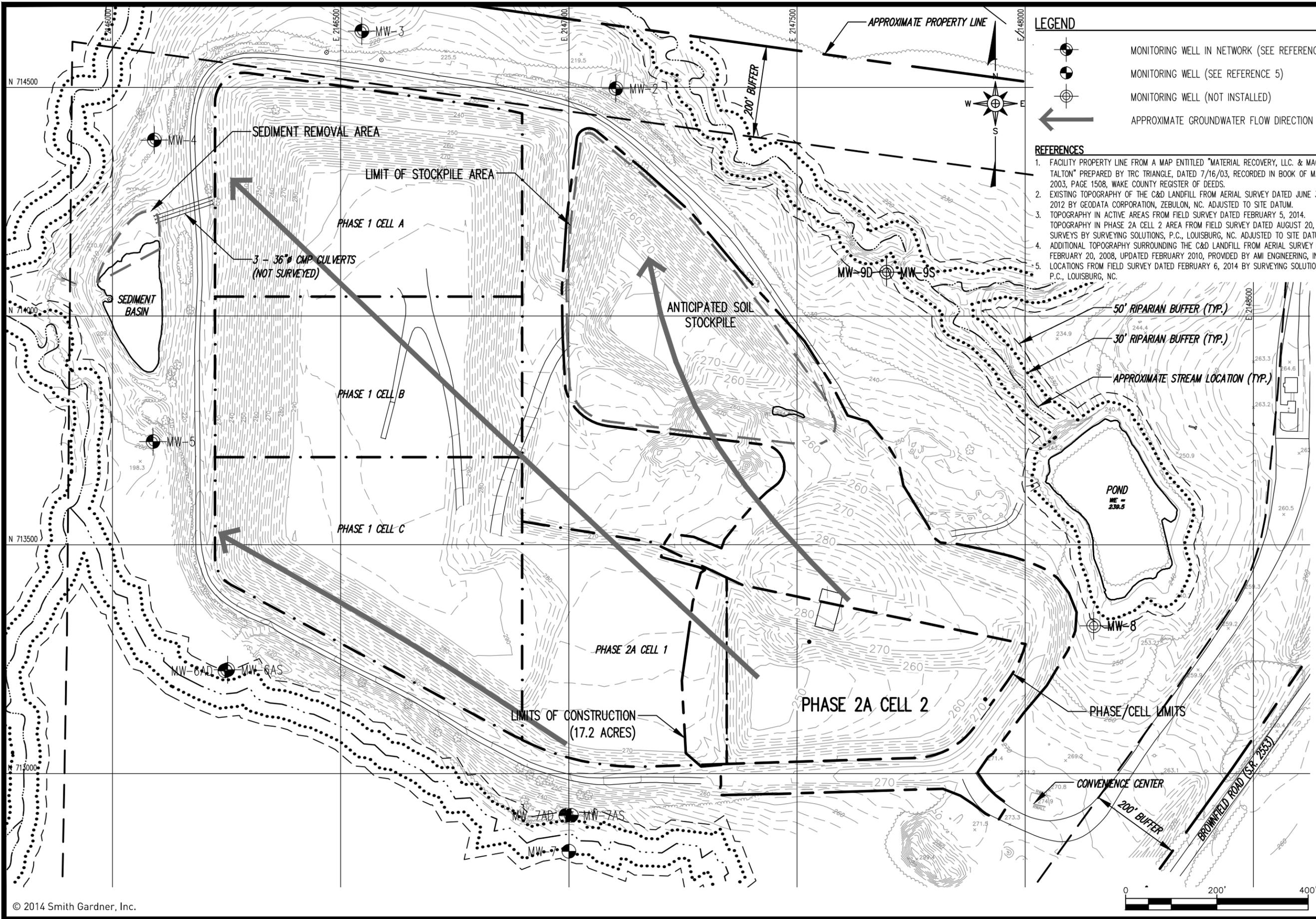
Madeline German, P.G.
Project Geologist
madeline@smithgardnerinc.com



Joan A. Smyth, P.G.
Senior Hydrogeologist
joan@smithgardnerinc.com

Attachment

cc: Donald Plessinger, WCA Waste Industries
David Pepper, Waste Industries
Donna Wilson, NCDENR
File



LEGEND

-  MONITORING WELL IN NETWORK (SEE REFERENCE 5)
-  MONITORING WELL (SEE REFERENCE 5)
-  MONITORING WELL (NOT INSTALLED)
-  APPROXIMATE GROUNDWATER FLOW DIRECTION

REFERENCES

1. FACILITY PROPERTY LINE FROM A MAP ENTITLED "MATERIAL RECOVERY, LLC. & MAGARET TALTON" PREPARED BY TRC TRIANGLE, DATED 7/16/03, RECORDED IN BOOK OF MAPS 2003, PAGE 1508, WAKE COUNTY REGISTER OF DEEDS.
2. EXISTING TOPOGRAPHY OF THE C&D LANDFILL FROM AERIAL SURVEY DATED JUNE 30, 2012 BY GEODATA CORPORATION, ZEBULON, NC. ADJUSTED TO SITE DATUM.
3. TOPOGRAPHY IN ACTIVE AREAS FROM FIELD SURVEY DATED FEBRUARY 5, 2014. TOPOGRAPHY IN PHASE 2A CELL 2 AREA FROM FIELD SURVEY DATED AUGUST 20, 2014. SURVEYS BY SURVEYING SOLUTIONS, P.C., LOUISBURG, NC. ADJUSTED TO SITE DATUM.
4. ADDITIONAL TOPOGRAPHY SURROUNDING THE C&D LANDFILL FROM AERIAL SURVEY DATED FEBRUARY 20, 2008, UPDATED FEBRUARY 2010, PROVIDED BY AMI ENGINEERING, INC.
5. LOCATIONS FROM FIELD SURVEY DATED FEBRUARY 6, 2014 BY SURVEYING SOLUTIONS, P.C., LOUISBURG, NC.

PREPARED FOR:
WAKE RECLAMATION, LLC
BROWNFIELD ROAD C&D LANDFILL
PHASE 2A CELL 2
GROUNDWATER MONITORING NETWORK UPDATES

PREPARED BY:
NC LIC. NO. C-0828 (ENGINEERING)
SMITH+GARDNER
14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

SCALE:	AS SHOWN	FIGURE NO:	1
APPROVED:	J.L.M.	PROJECT NO.:	BROWNFIELD 14-1
DRAWN:	J.A.L.	DATE:	Aug 2014
		FILENAME:	WI-B0963