

**AGIP Addendum No. 1 for SMCL Sector 2 Northeast  
Expansion (11/26/2018)**

November 26, 2018

Mr. Aaron Kent  
Waste and Materials Management Hydrogeologist  
Wisconsin Department of Natural Resources  
1300 W. Clairemont Avenue  
Eau Claire, WI 54701

Re: Alternative Geotechnical Investigation Program – Addendum No. 1  
Advanced Disposal Services - Seven Mile Creek Landfill  
Sector 2 Northeast Expansion  
WDNR License # 3097

Dear Mr. Kent:

Advanced Disposal Services (Advanced Disposal) – Seven Mile Creek Landfill, LLC (SMCL), submitted an Alternative Geotechnical Investigation Program (AGIP) dated October 23, 2018 to the Wisconsin Department of Natural Resources (WDNR) for the Sector 2 Landfill - Northeast Expansion. The WDNR provided comments on the AGIP in an email dated November 15, 2018 which is provided in Attachment 1. Cornerstone personnel corresponded with Nate Collier of the WDNR on November 16<sup>th</sup> and November 26<sup>th</sup> to clarify the WDNR comments regarding the location of the two borings near the southwest corner of the horizontal expansion footprint as well as the rationale for the proposed DH-62 well nest. This Addendum responds to and addresses the WDNR comments so that the WDNR can continue with their review of the AGIP. Cornerstone Environmental Group, LLC (Cornerstone), a Tetra Tech Company, on behalf of Advanced Disposal, is requesting the WDNR review the AGIP Addendum No. 1.

### **Response to WDNR Comments**

The WDNR provided three comments on the initial AGIP submittal. Each of the WDNR's comments are provided below followed by Advanced Disposal's response to the comment. The attached tables, figures, and attachments provide supporting documentation for this request.

**WDNR Comment No. 1**

*The proposed AGIP appears to satisfy the required number of borings for the proposed 12.5-acre horizontal expansion; however, we have the following requests and comments:*

- a. We agree with footnote 1 of Table 1 of the proposal that the additional geotechnical work should focus on the 12.5-acre expansion area, since the other portion of the expansion is a vertical overlay on currently approved landfill area. To help us assess which borings/wells are located within the 150-foot and 300-foot perimeter distances from the horizontal expansion, we request that you submit a revised map showing these distances around the horizontal portion of the expansion, excluding the vertical overlay. This will help us verify which borings and wells would be considered as part of the AGIP for only the horizontal expansion.*
- b. Because the depth to bedrock is somewhat variable across the site and is shallow in some areas, we believe that some additional borings in the area of the horizontal expansion will provide improved fidelity of bedrock depth in this area. The area near the south-west end of the horizontal expansion includes an area shown on the bedrock map with deeper bedrock surface elevation from other areas onsite. It seems that this area has only a few borings to evaluate the data. Therefore, we are requesting either additional boring logs if they exist and/or additional new borings to better evaluate the bedrock surface and/or confirm its elevation is consistent throughout this area. We can assist in identifying possible locations for borings. We think that 2 additional borings in addition to the proposed 5 borings would improve the subsurface characterization if other existing logs are not available.*

**Response:**

**1a.** Figure 3 attached to the document, has been prepared that depicts the 150-foot and 300-foot off-sets from the 12.5-acre horizontal footprint. Additionally, Table 1 and Table 2 from the AGIP have been revised and are attached to this document to reflect the total number of existing and proposed borings and wells located within this setback area.

**1b.** The competent bedrock surface is variable across the eastern portion of the Sector 2 Landfill as evidenced by the assumed depth to competent bedrock noted at boring DH24 located in the southwest corner of the proposed horizontal footprint. As noted on the DH24 boring log included in the AGIP, approximately 30 feet of weathered bedrock exists at this location which creates the appearance of a bedrock depression at this location as shown on the Competent Bedrock Surface map included in the AGIP. Two additional borings (TB-82 and TB-83) are proposed to be drilled to the east and north of boring DH24 near the southwest corner of the proposed horizontal footprint. The locations of these two borings

are shown on Figure 3. These two new borings will be cored ten feet into bedrock to confirm the extent of the likely weathered bedrock surface.

**WDNR Comment No. 2**

*The AGIP (additional information that was received via email on 11/7/2018) requests an exemption from reporting standard penetration testing (SPT) because sonic drilling doesn't allow for blow counts. If sonic drilling is used, then we'd like to see an attempt to collect rock cores at all borings that extend 5 feet or more into bedrock in accordance with s. NR 507.05 (2), Wis. Adm. Code, and therefore, we would not concur with the proposal to collect only the one rock core (at boring DH62A).*

**Response:**

Bedrock coring will be attempted at each boring that extends greater than five feet into the bedrock surface. Table 3 from the AGIP has been revised to reflect the borings where bedrock coring will be attempted, the anticipated weathered surface elevation, and competent bedrock surface elevation. The coring will be initiated at or within a few feet of penetrating the weathered bedrock surface. Revised Table 3 is attached to this document.

**WDNR Comment No. 3**

*The proposed deepest boring would be at piezometer DH62A, which is located within the proposed waste limits. Please explain or provide the rationale for why this boring was selected to be the deepest and within proposed waste limits. Section NR 512.09 (1) (c), Wis. Adm. Code requires that all attempts be made to locate the bedrock borings outside the proposed limits of waste.*

**Response:**

NR 512.09(2)(b) requires that one well nest be located within the footprint for every 20 acres of proposed filling. Since a 12.5-acre horizontal expansion is proposed and there are no existing well nests within the proposed horizontal footprint, well nest DH-62/62A is proposed to be installed to meet the NR 512 requirement. Additionally, since the water table surface is expected to be within the bedrock at this well nest location, bedrock drilling will be required to install both the water table well and the piezometer. As a result, the bedrock drilling is unavoidable to meet the above referenced NR 512 requirement. The anticipated well depths, water table elevation, and bedrock surface elevation are summarized in attached Revised Table 3.

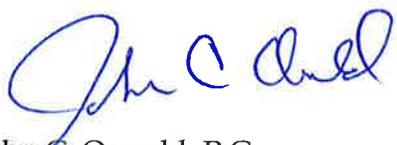
**Recommendation:**

The SMCL believes that the responses presented in this Addendum satisfactorily address the additional information requested by the WDNR in their email dated November 15, 2018. The contents of this document should enable the WDNR to complete the AGIP review process in a timely manner.

Should you have any questions regarding the information provided, please contact me by email at [John.Oswald@cornerstoneeg.com](mailto:John.Oswald@cornerstoneeg.com) or by phone at (630) 410-7224.

Sincerely,

Cornerstone Environmental Group, LLC



John C. Oswald, P.G.  
Sr. Project Manager / Operations Director

Attachments: Table 1 Revision No.1: AGIP NR 512 Comparison  
Table 2 Revision No. 1: Existing Borings and Well Data  
Table 3 Revision No. 1: Proposed Borings and Well Information  
Figure 3: Proposed Boring and Monitoring Well Location Map (Horizontal)  
(Note: Figures 1 and 2 in the AGIP dated October 23, 2018)  
Attachment 1: WDNR Email dated November 15, 2018

Cc: Mark Vinall - Advanced Disposal Services  
Tim Curry - Advanced Disposal Services (electronic copy only)  
Nate Coller - WDNR, Spooner Service Office (electronic copy only)  
Marty Herrick - WDNR, LaCrosse Service Office  
Joe Lourigan - WDNR, Madison (electronic copy only)  
Dan Roche - Cornerstone (electronic copy only)

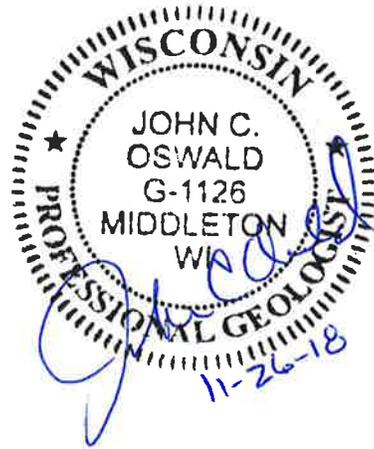
# CERTIFICATION

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I, John C. Oswald, hereby certify that I am a licensed professional geologist in the State of Wisconsin in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code; that the preparation of this document has not involved any unprofessional conduct as detailed in ch. GHSS 5, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 500 to 538, Wis. Adm. Code.

John C. Oswald  
Name

Senior Geologist / WI Operations Director  
Title



## Tables

**Table 1 (Revision No. 1)**  
**Alternative Geotechnical Investigation Program - NR 512 Comparison**  
**Advanced Disposal Services**  
**Seven Mile Creek Landfill - Sector 2 Northeast Expansion**  
**Feasibility Report**  
**Eau Claire, Wisconsin**

	<b>Requirements for a 15-acre site</b>
Soil borings	14
Water table wells	7
Piezometers	3

	<b>No. of Existing Locations</b>	<b>No. of Proposed Additional Drilling Locations</b>	<b>Total Locations for Proposed Alternative Program</b>
Soil borings	13	7	20
Water table wells	3	4	7
Piezometers	2	2	4

Notes:

1. Assumes a coarse-grained site as defined in NR 500.
2. The total Seven Mile Creek LF expansion footprint is approximately 34.5 acres and includes a 12.5 acre horizontal expansion and a 22.0 acre vertical expansion. The investigation program is based on the 12.5 acre horizontal expansion footprint.
3. One active well nest is required inside the proposed landfill footprint per NR 512.09(2)(b). Well nest DH-62/DH-62A will be installed within the footprint.
4. Number of existing borings and wells based on 150 foot and 300 foot radius around horizontal expansion footprint only.

Prepared by: N. Dykstra  
Checked by: T. Daigle/ J. Oswald  
Revised: J. Oswald

TABLE 2 (Revision No. 1)  
 PROPOSED ALTERNATIVE GEOTECHNICAL INVESTIGATION PROGRAM  
 EXISTING BORING AND MONITORING WELL INFORMATION SUMMARY  
 SEVEN MILE CREEK LANDFILL  
 SECTOR 2 NORTHEAST EXPANSION

Location	Original landfill boring/well ID	Approx. distance from limits of waste (ft)	Approx. ground surface elevation (ft-MSL)	Boring depth (ft)	Approx. bottom boring elevation (ft-MSL)	Nearest subbase elevation (ft-MSL)	Nearest subbase elevation minus 25 feet (ft-MSL)	Sample interval (ft)	Well bottom elevation (ft-MSL)	Well Type	Use for FR well (meets NR 512 requirements)	Use for FR boring (meets NR 512 requirements)	Standard Penetration Test	MW: soil test in screen zone	MW: hydraulic conductivity (cm/sec)	MW: well log	MW: well development log	Boring log	Well Abandoned	Abandonment log	Comments
150	AB-D	Within	920	30	890	894	869	-	-	-	-	-	-	-	-	-	-	-	-	-	Boring log not available
150	AB-E	Within	911	26	885	902	877	-	-	-	-	-	-	-	-	-	-	-	-	-	Boring log not available
150	AB-F	Within	911	26	885	902	877	-	-	-	-	-	-	-	-	-	-	-	-	-	Boring log not available
150	AB-H	Within	912	26	886	902	877	-	-	-	-	-	-	-	-	-	-	-	-	-	Boring log not available
150	AB-I	Within	912	22	890	908	883	-	-	-	-	-	-	-	-	-	-	-	-	-	Boring log not available
150	AB-J	Within	912	17.5	894.5	908	883	-	-	-	-	-	-	-	-	-	-	-	-	-	Boring log not available
150	AB-K	Within	912	21	891	906	881	-	-	-	-	-	-	-	-	-	-	-	-	-	Boring log not available
150	AB-M	Withn	917	40	877.3	894	869	-	-	-	-	-	-	-	-	-	-	X	-	-	free drilling- rock search
300	AB-N	165	911	55	856	906	881	-	-	-	-	-	-	-	-	-	-	X	-	-	free drilling- rock search
150	AB-O	10	911	15.5	895.64	908	883	5	-	-	-	X	-	-	-	-	-	X	-	-	
150	AB-P	95	911	16.2	894.6	904	879	5	-	-	-	X	-	-	-	-	-	X	-	-	
	GP-10	within	926	47	879	906	881	5	-	-	X	X	-	-	-	-	-	X	-	-	gas probe
	GP-11	within	927	49	878	900	875	5	-	-	X	X	-	-	-	-	-	X	-	-	gas probe
150	DH-1	15	920	55	865.3	894	869	5	-	-	X	X	-	-	-	-	-	X	X	X	Well abandoned
150	DH-23	Within	912	51	861.23	908	883	5	-	-	-	X	-	1.30E-03	-	-	-	X	X	-	Well abandoned / Boring logs from DH-23 and DH-23B combined, provide geologic information to 122.5 feet below ground surface (bgs)
150	DH-23A	Within	912	75	837.2	908	883	(6)	-	-	-	X	-	6.80E-04	-	-	-	X	X	-	Well abandoned
150	DH-23B	Within	912	122.5	789.7	908	883	-	-	-	X	-	-	1.40E-04, 6.4E-03	-	-	-	X	X	-	Well abandoned / Boring logs from DH-23 and DH-23B combined provided geologic information to 122.5 feet bgs / Rock cores from 50 to 60 feet / 95 to 100 feet / 120 to 122.5 feet bgs
150	DH-23C	Within	912	30	882.2	908	883	-	-	-	-	-	-	-	-	-	-	X	X	-	Well abandoned
150	DH-24	Within	921	53.3	867.3	898	873	5	-	-	X	X	-	-	-	-	-	X	X	X	Well abandoned
300	DH-39	155	925	52	872.7	894	869	5	875.7	WT	X	X	X	6.48E-03	X	X	X	X	-	-	
300	DH-39A	155	925	75	849.7	894	869	5	850.7	P	X	X	X	1.45E-03	X	X	X	X	-	-	Drilled 5 feet into weathered bedrock
150	DH-40	Within	924	59	865.1	898	873	5	875.1	WT	X	X	X	3.91E-03	X	X	X	X	-	-	Drilled 20 feet into weathered bedrock
150	DH-44	120	917	48	868.7	894	869	5	-	-	-	X	-	4.93E-03	-	-	-	X	X	X	Well abandoned
150	DH-44A	120	917	72	844.6	894	869	5	-	-	X	X	-	6.10E-03	-	-	-	X	X	X	Well abandoned
150	DH-46	120	933	41	892.3	914	889	5	896.3	WT	X	-	X	7.93E-05	X	X	X	X	-	-	
150	DH-46A	120	933	64	869.3	914	889	5	871.3	P	X	X	in wx rock	3.11E-03	X	X	X	X	-	-	Rock core from 30 to 64 feet bgs
Outside	DH-47	315	923	24.5	898.7	912	887	5	900.2	WT	> 300 feet	-	X	6.67E-03	X	X	X	X	-	-	
Outside	DH-47A	315	923	48	874.9	912	887	-	874.9	P	> 300 feet	-	X	2.84E-03	X	X	X	X	-	-	
150	DH-50	30	907	42	865.3	900	875	5	-	-	X	X	-	2.16E-03	-	-	-	X	X	X	
150	TB-15	150	911	31	880	905	880	2.5	-	-	-	X	-	-	-	-	-	X	-	-	
150	TB-18	80	913	32	881.2	910	885	2.5	-	-	-	X	-	-	-	-	-	X	-	-	
150	TB-19	Within	913	15	898.2	910	885	2.5	-	-	-	-	-	-	-	-	-	X	-	-	
300	TB-21	180	913	22	891.2	892	867	2.5	-	-	-	-	-	-	-	-	-	-	-	-	Boring log not available
150	TB-22	Within	921	22	899.2	894	869	2.5	-	-	-	-	-	-	-	-	-	-	-	-	Boring log not available
150	TB-29	90	908	26	881.6	905	880	2.5	-	-	-	-	-	-	-	-	-	X	-	-	
150	TB-32	65	911	25.6	885.4	904	879	5	-	-	-	-	X	-	-	-	-	X	-	-	
150	TB-33	Within	910	40	870.2	906	881	5	-	-	-	X	X	-	-	-	-	X	-	-	
150	TB-36	70	912	19.5	892.1	908	883	5	-	-	-	X	-	-	-	-	-	X	-	-	
150	TB-37	Within	911	35.4	875.8	908	883	5	-	-	-	X	X	-	-	-	-	X	-	-	
150	TB-38	40	913	50.2	862.4	896	871	5	-	-	-	X	X	-	-	-	-	X	-	-	
150	TB-39	Within	914	18.2	895.8	894	869	5	-	-	-	X	-	-	-	-	-	X	-	-	
300	TB-40	235	913	46.5	866.5	892	867	5	-	-	-	X	X	-	-	-	-	X	-	-	
150	TB-41	Within	918	40.2	877.6	894	869	5	-	-	-	-	X	-	-	-	-	X	-	-	
300	TB-42	285	910	31.5	878.8	893	868	5	-	-	-	-	X	-	-	-	-	X	-	-	
150	TB-58	95	901	51.5	849.4	924	899	5	-	-	-	X	X	-	-	-	-	X	-	-	
300	TB-61	255	911	56	855.1	892	867	5	-	-	-	X	X	-	-	-	-	X	-	X	
150	TB-62	Within	915	56	859.4	894	869	5	-	-	-	X	X	-	-	-	-	X	-	X	
150	TB-63	Within	923	33.5	889.3	896	871	5	-	-	-	-	X	-	-	-	-	X	-	X	
150	TB-64	Within	919	55.4	863.8	894	869	5	-	-	-	-	X	-	-	-	-	X	-	X	
150	TB-65	Within	917	60.7	856.5	894	869	5	-	-	-	X	X	-	-	-	-	X	-	X	
150	TB-68	Within	920	60.5	859.5	894	869	5	-	-	-	X	X	-	-	-	-	X	-	X	
150	TB-69	15	925	61	864	904	879	5	-	-	-	X	X	-	-	-	-	X	-	X	
150	TB-70	140	919	56	863.4	899	874	5	-	-	-	X	X	-	-	-	-	X	-	X	
300	TB-71	280	915	41	873.8	894	869	5	-	-	-	-	X	-	-	-	-	X	-	X	
300	TB-74	210	910	47	863	898	873	5	-	-	-	X	X	-	-	-	-	X	-	X	

TABLE 2 (Revision No. 1)  
 PROPOSED ALTERNATIVE GEOTECHNICAL INVESTIGATION PROGRAM  
 EXISTING BORING AND MONITORING WELL INFORMATION SUMMARY  
 SEVEN MILE CREEK LANDFILL  
 SECTOR 2 NORTHEAST EXPANSION

300	TB-77	225	918	50.5	867.8	910	885	5		-		X	X				X		X	
150	TB-78	Within	919	55	863.8	908	883	5		-		X	X				X		X	Rock core from 30 to 55 feet bgs
150	TB-79	Within	922	52	869.8	912	887	5		-		X	X				X		X	
150	TB-80	25	926	56	870.3	914	889	5		-		X	X				X		X	

Notes:

- 1 WT Included in NR 512 count for water table wells
- 2 P Included in NR 512 count for piezometers
- 3 AB-XX/TB-XX /DH-XX Included in NR 512 boring count
- 4 864 Boring depth meets NR 512 depth requirement
- 5 Subbase elevations based on top of clay grades conceptual drawings minus 4-ft
- 6 Ground surface elevation noted is at time boring was drilled
- 7 Wells greater than 150 feet from LF footprint subject to NR 140 ES Exceedences
- 8 wx = weathered
- 9 bgs = below ground surface
- 10 ft - MSL = feet above mean sea level

Prepared by: CR/ND  
 Checked by: TD/JO  
 Revised: JO

TABLE 3 (REVISION NO. 1)  
 ALTERNATIVE GEOTECHNICAL INVESTIGATION PROGRAM  
 PROPOSED BORINGS AND MONITORING WELLS  
 ADVANCED DISPOSAL SERVICES -  
 SEVEN MILE CREEK LANDFILL  
 SECTOR 2 NORTHEAST EXPANSION  
 EAU CLAIRE, WI

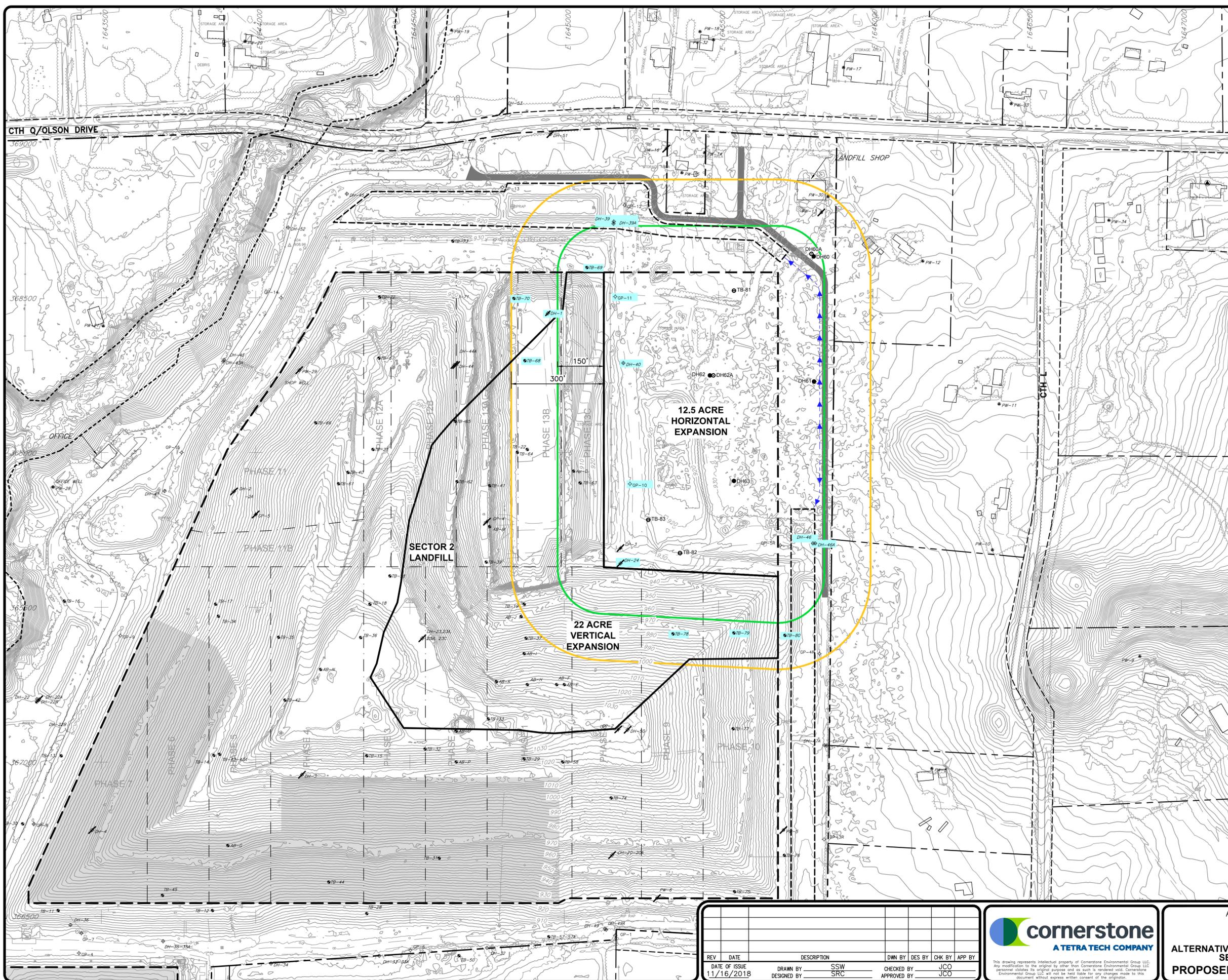
Proposed Borings & Wells	Location	Approx. Ground Surface Elevation (ft-MSL)	Approx. Nearest Subbase Elevation (ft-MSL)	Estimated Groundwater Elevation (ft-MSL)	Estimated Well Bottom Elevation (ft-MSL)	Estimated Boring Bottom Elevation (ft-MSL)	Approx. Top of Weathered Bedrock Elevation (ft-MSL)	Approx. Competent Bedrock Elevation (ft-MSL)	Approx. Length of Drilling into Bedrock (feet)	Approx. Length of Bedrock Coring (feet)	Sample Interval - Sonic Drilling (feet)	Total Boring Depth (feet bgs)	Well Depth (feet bgs)	Well Screen Length (feet)	Riser Length (feet)	Well Type	Well Casing Material	Use for FR to Meet NR 512 Requirements	Sampled (feet)	Drilled Only (feet)	Abandoned (feet)	Comments
Wells																						
DH-60	see map	934	906	887	877	875	887	885	12	0	Continuous	59	57	15	45	WT	Sch. 40 PVC	Yes	0	59	0	sampling and coring at DH-60A
DH-60A	see map	934	906	887	847	845	887	885	42	40	NA	89	87	5	85	P	Sch. 80 PVC	Yes	89	0	0	
DH-61	see map	935	908	892	882	877	904	896	27	27	Continuous	58	53	15	41	WT	Sch. 40 PVC	Yes	58	0	0	
DH-62	see map	931	907	887	877	875	896	892	21	0	NA	56	54	15	42	WT	Sch. 40 PVC	Yes	0	56	0	sampling and coring at DH-62A
DH-62A	see map	931	907	887	847	845	896	892	51	50	Continuous	86	84	5	82	P	Sch. 80 PVC	Yes	86	0	0	
DH-63	see map	931	909	890	880	875	917	898	42	40	Continuous	56	51	15	39	WT	Sch. 40 PVC	Yes	56	0	0	
Boring																						
TB-81	see map	931	906	885	-	882	887	884	5	0	Continuous	49	-	-	-	-	-	Yes	49	-	49	Boring to extend 5 feet into assumed bedrock surface or will be drilled to 25 feet below subbase if deeper bedrock surface - no rock core at this location
TB-82	see map	928	907	890	-	897	907	885	10	10	Continuous	31	-	-	-	-	-	Yes	31	-	31	Boring to extend 10 feet into bedrock
TB-83	see map	924	907	885	-	902	912	880	10	10	Continuous	22	-	-	-	-	-	Yes	22	-	22	Boring to extend 10 feet into bedrock
Total									220	177		506	386	70	334				391	115	102	

Notes:

- 1 Water elevations were projected into the expansion area and are based on average water level data measured between Feb 2010 - Apr 2017, which typically are within 3-ft of the high water measurement over that same period.
- 2 WT = water table well
- 3 P = piezometer
- 4 NA - not applicable - Water table well at well nest to be blind drilled.
- 5 BGS = below ground surface
- 6 ft-MSL = feet above mean sea level
- 7 Groundwater elevations are an approximate average of high and low data provided in the 2014 Feasibility Report.
- 8 Competent bedrock elevations are based on 2014 Feasibility Report Addendum No. 1 Estimated Competent Bedrock Contours drawing dated 10/17/2014.
- 9 Weathered bedrock elevations are approximated based on adjacent existing boring log information.
- 10 Rock coring is presumed to commence at the weathered bedrock surface. Field conditions may dictate actual coring interval and length.
- 11 Riser length = total well depth - screen length + 3-ft stick up above the ground surface.

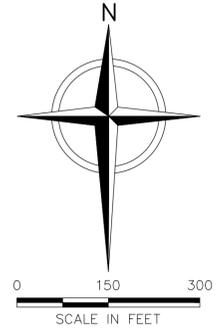
Prepared by: ND  
 Checked by: JO  
 Revised by: JO

**Figure**



- LEGEND**
- PROPERTY BOUNDARY
  - - - ROAD RIGHT-OF-WAY
  - - - PERMITTED SOLID WASTE BOUNDARY
  - - - PHASE BOUNDARY
  - █ FINAL COVER (CLOSED)
  - - - APPROXIMATE 100-YEAR FLOODPLAIN DELINEATION
  - EXISTING EDGE OF WOODS/SHRUBS
  - 1000 --- EXISTING 10' CONTOUR
  - EXISTING 2' CONTOUR
  - ⊕ DH-33 EXISTING GROUNDWATER MONITORING WELL
  - ▲ PW-8 EXISTING PRIVATE WELL
  - ◇ GP-13 EXISTING GAS PROBE
  - B-68 SOIL BORING LOCATION
  - ⚡ DH-44 ABANDONED MONITORING WELL
  - ⚡ PW-5 ABANDONED PRIVATE WELL
  - ⚡ GP-3 ABANDONED GAS PROBE
  - - - PROPOSED NORTHWEST EXPANSION HORIZONTAL FOOTPRINT
  - █ PROPOSED NORTHWEST EXPANSION VERTICAL FOOTPRINT
  - █ 150' OFFSET FROM HORIZONTAL EXPANSION BOUNDARY
  - █ 300' OFFSET FROM HORIZONTAL EXPANSION BOUNDARY
  - ⊕ TB-62 EXISTING BORING UTILIZED IN AGIP
  - ⊕ TB-82 PROPOSED SOIL BORING LOCATION
  - ⊕ DH60A PROPOSED PIEZOMETER LOCATION
  - DH60 PROPOSED WATER TABLE WELL LOCATION
  - PROPOSED DRAINAGE DITCH
  - - - PROPOSED STORM WATER BASIN
  - █ PROPOSED ROAD

- NOTES:**
- DRONE SURVEY PERFORMED BY CQM ON APRIL 24, 2018 WITHIN AREA SHOWN ON MAP AND SUPPLEMENTED BY TOPOGRAPHIC SURVEY PERFORMED BY SRMC ON APRIL 6, 2017.
  - PROPERTY BOUNDARIES AND ROAD RIGHT-OF-WAYS ARE FROM DRAWINGS CREATED BY AYRES ASSOCIATES WITH SUPPLEMENTAL DATA FROM EAU CLAIRE COUNTY'S GIS DEPARTMENT.



File: X:\PROJECTS\SEVEN MILE CREEK\180380 - SECTOR 2 NE EXP - 181 BR AGP\_Plan\_Sht\AGIP-03-SMC380-5-PROPOSED.dwg Layout: 03 User: shuncummings Nov 16, 2018 - 2:09pm  
 1" = 1/2" 0'

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
DATE OF ISSUE	11/16/2018	DRAWN BY	SSW	CHECKED BY	JCO	
		DESIGNED BY	SRC	APPROVED BY	JCO	



ADVANCED DISPOSAL SERVICES  
 SEVEN MILE CREEK LANDFILL  
 EAU CLAIRE, WISCONSIN  
**ALTERNATIVE GEOTECHNICAL INVESTIGATION PROGRAM**  
**SECTOR 2 - NORTHEAST EXPANSION**  
**PROPOSED BORING LOCATIONS (HORIZONTAL)**

FIGURE NO.  
**3**  
 PROJECT NO.  
 180380

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## **Attachment 1**

WDNR Email Dated November 15, 2018

**From:** [Coller, Nathan - DNR](#)  
**To:** [mark.vinall@advanceddisposal.com](mailto:mark.vinall@advanceddisposal.com); [Oswald, John](#)  
**Cc:** [Lourigan, Joseph J - DNR](#); [Kent, Aaron T - DNR](#); [Morris, John M - DNR](#); [Herrick, Martin A - DNR](#)  
**Subject:** ADS SMCL #3097 NE Expansion AGIP request  
**Date:** Thursday, November 15, 2018 3:05:09 PM

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Hi Mark and John,

After discussions with Joe Lourigan, Aaron Kent, and John Morris, we are providing our preliminary feedback regarding the request for an alternative geotechnical investigation program (AGIP) for the proposed Northeast Expansion of Seven Mile Creek Landfill; however, please understand that this is not a full acceptance letter. We do intend to provide ADS with a formal response letter within the specified review time provided in code. Any geotechnical work that is conducted prior to receiving a formal acceptance letter is done at ADS' own risk.

- The proposed AGIP appears to satisfy the required number of borings for the proposed 12.5-acre horizontal expansion; however, we have the following requests and comments:
  - We agree with footnote 1 of Table 1 of the proposal that the additional geotechnical work should focus on the 12.5-acre expansion area, since the other portion of the expansion is a vertical overlay on currently approved landfill area. To help us assess which borings/wells are located within the 150-foot and 300-foot perimeter distances from the horizontal expansion, we request that you submit a revised map showing these distances around the horizontal portion of the expansion, excluding the vertical overlay. This will help us verify which borings and wells would be considered as part of the AGIP for only the horizontal expansion.
  - Because the depth to bedrock is somewhat variable across the site and is shallow in some areas, we believe that some additional borings in the area of the horizontal expansion will provide improved fidelity of bedrock depth in this area. The area near the south-west end of the horizontal expansion includes an area shown on the bedrock map with deeper bedrock surface elevation from other areas onsite. It seems that this area has only a few borings to evaluate the data. Therefore, we are requesting either additional boring logs if they exist and/ or additional new borings to better evaluate the bedrock surface and/or confirm its elevation is consistent throughout this area. We can assist in identifying possible locations for borings. We think that 2 additional borings in addition to the proposed 5 borings would improve the subsurface characterization if other existing logs are not available.
- The AGIP (additional information that was received via email on 11/7/2018) requests an exemption from reporting standard penetration testing (SPT) because sonic drilling doesn't allow for blow counts. If sonic drilling is used, then we'd like to see an attempt to collect rock cores at all borings that extend 5 feet or more into bedrock in accordance with s. NR 507.05 (2), Wis. Adm. Code, and therefore, we would not concur with the

proposal to collect only the one rock core (at boring DH62A).

- The proposed deepest boring would be at piezometer DH62A, which is located within the proposed waste limits. Please explain or provide the rationale for why this boring was selected to be the deepest and within proposed waste limits. Section NR 512.09 (1) (c), Wis. Adm. Code requires that all attempts be made to locate the bedrock borings outside the proposed limits of waste.

We would be happy to further discuss the above items with you.

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**Nathan Coller**

Hydrogeologist

Wisconsin Department of Natural Resources

Spooner Service Center

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