

# MEMORANDUM

<b>Date:</b>	September 10, 2013
<b>To:</b>	Charlie Brushwood, Davidson County Angela Jones, Davidson County
<b>From:</b>	Pieter K. Scheer, P.E. Smith Gardner, Inc.
<b>RE:</b>	<b>Landfill Capacity Clarification for MSW Landfill NC Solid Waste Permit No. 29-06</b>

I understand that Mr. Ethan Brown of the NCDENR Division of Waste Management (DWM) has requested that the County provide revised capacity values for the County's annual MSW landfill annual report. Specifically, the DWM would like that the reported values for airspace used and total tons disposed include both the closed Phase 1 and active Phase 2 MSW landfill units. Based on the current Facility and Engineering Plan<sup>1</sup>, as well as this year's landfill capacity evaluation report to the County<sup>2</sup>, the following values should be reported:

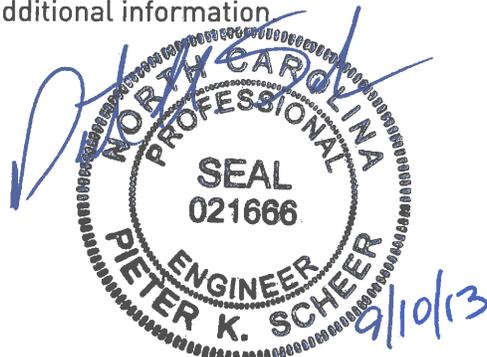
**MSW Landfill (Phases 1 and 2):**

Date Facility Last Surveyed	2/20/13
Airspace Used (cubic yards):	<u>2,982,954</u>
Total Tons Disposed in Airspace Used (tons):	<u>1,849,472</u>

Of the above totals, the values for Phase 1 are 2,291,403 CY used and 1,415,217 tons disposed as reported in the current Facility and Engineering Plan (see attached Table 2.1 from this plan). Note that these values differ somewhat from those provided previously for Phase 1 as corrections were made during the preparation of the current Facility and Engineering Plan.

Please let me know if you have any questions or need any additional information

Attachment: Table 2.1 from Facility and Engineering Plan



<sup>1</sup> Smith Gardner, Inc. (2013), Davidson County MSW Landfill - Phase 2 - Area 2, Facility and Engineering Plan, revised April 2013.  
<sup>2</sup> Smith Gardner, Inc. (2012), "2013 Landfill Capacity Evaluation", Letter to Charlie Brushwood, Davidson County Solid Waste Management Department, July 25, 2013.

alternative final cover system versus the infiltration through the regulatory minimum cover is presented in **Section 5.3.1**.

**TABLE 2.1  
TOTAL OPERATING CAPACITY AND LIFE EXPECTANCY  
MSW LANDFILL UNITS**

<b>Landfill Unit</b>	<b>Area (Acres)</b>	<b>Gross Capacity (CY)</b>	<b>Net (Waste) Capacity (CY/Tons)</b>	<b>Life Expectancy (Years)</b>
<b>Unlined Landfill Units</b>				
Holly Grove LF Areas I & II	32.1	1,497,972	1,115,517 CY 669,310 Tons	Closed
Total (Unlined):	32.1	1,497,972	1,115,517 CY 669,310 Tons	Closed
<b>Lined (Subtitle D) Landfill Units</b>				
Phase 1 (Areas 1-3)	31.9	2,291,403	2,062,263 CY 1,415,217 Tons	Closed
Phase 2 - Area 1	14.7	866,081	778,542 CY 522,687 Tons	1.7 <sup>2</sup>
Phase 2 - Area 2 (See Note 3)	11.9	897,827	808,045 CY 565,631 Tons	4.9
Phase 2 - Area 3	14.6	1,226,455	1,103,809 CY 772,666 Tons	6.7
Phase 2 - Area 4	10.9	905,038	814,535 CY 570,174 Tons	5.0
Phase 2 - Area 5	7.0	1,374,502	1,237,052 CY 865,936 Tons	7.5
Phase 2 - Area 6	9.1	564,683	508,215 CY 355,751 Tons	3.1
Phase 2 - Area 7	13.3	1,106,473	995,826 CY 697,078 Tons	6.1
Phase 2 - Area 8	6.3	1,284,861	901,404 CY 630,983 Tons	5.5
Total (Lined):	119.7	10,517,323	9,209,691 CY 6,396,123 Tons	40.5

Notes:

1. The gross capacity figures shown for Phase 2 – Areas 1 through 7 are from top of protective cover to top of intermediate cover. For other landfill units the gross capacity figures are from top of subgrade (unlined units) or top of protective cover (lined units) to top of final cover. Also note that the gross