



September 24, 2015

Mr. Terrance Gray, P.E.
Associate Director for Environmental Protection
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, RI 02908-5767

Dear Mr. Gray:

Subject: FY15 - Annual Capacity Utilization Report and Projected Landfill Life

Enclosed is the Rhode Island Resource Recovery Corporation Annual Report on Solid Waste Generation and Capacity Utilization for the Fiscal Year ending June 30, 2015 for the Phase V - Southeast Landfill.

The report indicates that in the Fiscal Year 2015, 1,047,455 tons of solid waste, not including cover materials, was buried in the Phase V landfill. The Phase V permit design estimated 13,428,810 cubic yards (CY) of available airspace, of which 12,132,445 CY has been consumed as of June 30, 2015. This equates to approximately 10% of the Phase V airspace remaining unutilized as of June 30, 2015. However, in order to accurately estimate the total remaining facility disposal capacity (in tons), updated solid waste disposal capacity estimates for the Phase V Landfill must be obtained. This information was obtained from topographical surveys of the facility in early 2015. Based on the survey performed and comparing the same to the permitted final grades for the facility, there remains 1,296,365 cubic yards of airspace in the Phase V landfill as of June 30, 2015.

RIRRC personnel have placed greater emphasis on landfill operations to improve waste compaction and cover utilization, thereby maximizing our asset of airspace. These efforts, as well as settlement of the landfill, has increased the available Phase V solid waste disposal capacity of 6,648,472 tons, as stated in the original Phase V permit application, to over 9 million tons. As of June 30, 2015, 8,790,227 tons of solid waste has been landfilled in Phase V.

As stated above, there remains approximately 1.3 million cubic yards of permitted solid waste disposal capacity in the Phase V landfill, as of June 30, 2015. The projected full date for the existing landfill is between March 2016 and July 2016, with the annual loading rates ranging between 800,000 and 950,000 tons per year. As you are aware, RIRRC is in the process of constructing the first cell of the Phase VI landfill, with an expected completion date of December 2015.

If there are any questions on this report, please feel free to contact me at (401) 942-1430.

Sincerely,

A handwritten signature in black ink, appearing to read "BNC".

Brian N. Card, P.E.
Director of Operations & Engineering

cc: Mike OConnell - RIRRC
RIRRC Website – www.rirrc.org

**RHODE ISLAND RESOURCE RECOVERY CORPORATION ANNUAL
REPORT ON SOLID WASTE GENERATION AND LANDFILL
CAPACITY UTILIZATION: FY 2015**

Purpose: This report compares the projected solid waste landfilled for Fiscal Year 2015, extrapolated from the System Development Plan (adopted in April 2007) to the actual landfill capacity consumed reported in both tons and volume estimates.

Projected Solid Waste Landfilled: Table 1 below summarizes the projected solid waste to be landfilled for calendar years 2014 and 2015 which is extrapolated to the fiscal year ending June 30, 2015, as reported in the Rhode Island Solid Waste System Development Plan, 2007.

Table 1. Projected Solid Waste Landfilled In Rhode Island

	Low	High
Calendar 2014*	889,853	1,271,775
Calendar 2015*	896,346	1,280,949
FY15 Extrapolation	893,100	1,276,362

*From the Rhode Island Solid Waste System Development Plan 2007.

Actual Solid Waste Landfilled (by weight):

Table 2. Solid Waste Landfilled - FY15 (tons)	
Month	Phase V
July 2014	93,477
August 2014	86,481
September 2014	91,459
October 2014	105,136
November 2014	91,364
December 2014	90,533
January 2015	68,062
February 2015	48,734
March 2015	74,118
April 2015	94,059
May 2015	97,900
June 2015	106,133
FY15 Totals	1,047,455

Phase V Capacity Utilization:

Based on volume surveys conducted for the period ending June 30, 2015, a total of 12,132,445 cubic yards of airspace was consumed (1,296,365 CY remaining). Comparing this value to Table 3.1 of the “Proposed Phase V Permitting Application”, dated October 2003, indicates that the capacity utilized in the Phase

V Cell is approximately 90.3% of the total volume available for filling in Phase V (13,428,810 cubic yards = solid waste + daily cover).

As a further check, from Table 2, the total waste landfilled in the Phase V cell for the fiscal period ending June 30, 2015 was 1,047,455 tons, resulting in a total ton of solid waste in Phase of 8,790,227 tons as of June 30, 2015. Again in comparison to Table 3.1 of the permitting application, the capacity utilized is approximately 96.7% of the revised total estimated capacity for Phase V (9,084,590 tons based on long term density of 1650 lbs/cy) as based on weight. (It should be noted that the tonnage comparison utilizes average densities and assumed cover percentages to predict total tonnage available and will differ from actual densities of the waste and cover percentages used during the period in review.)

Table 3.1¹
Phase V Landfill Capacity

	Area 1	Area 2	Total
Total Volume (CY)	10,323,874	3,782,535	14,106,409
Final Cap (CY)	398,170	279,429	677,599
Daily Cover (CY)	1,786,627	630,559	2,417,186
Solid Waste (CY)	8,139,077	2,872,547	11,011,624
Solid Waste (TONS)	4,476,493	1,579,900	6,056,393
Solid Waste (TONS) gained*	523,750	68,330	592,080
Total Capacity (tons)	5,000,242	1,648,230	6,648,472
Revised-Capacity (tons)**	—	—	9,084,590

* - Estimated additional capacity based on settlement

** - Revised capacity based on long term density of 1650 lbs/cy

¹Reference: Phase V Permitting Application, dated October 2003

Comparisons to Rhode Island Comprehensive Solid Waste Management Plan (RICSWMP):

The prior RICSWMP as adopted by the State Wide Planning Council on April 12, 2007, predicted capacity needs for the period ending June 30, 2015 in the range of 896,346 to 1,276,362 tons (Table 1). The actual utilization of 1,047,455 tons is below this range. The most current RICSWMP, dated May 14, 2015 discusses the need for further diversion of solid waste from disposal and the need for further evaluation to meet the demands of solid waste disposal past 2038 in the State of Rhode Island.

The most recent Solid Waste Management Plan is available for review on the RIRRC web site (www.rirrc.org).

Status of efforts to maintain and/or revegetate the buffer zone in accordance with, but not limited to, R.I.G.L. 23-18.9-9.1 (b) (1) and 23-19-40:

At all times during the operation of Phase V Landfill, the facility was compliant with the statutory requirements of buffer zones.