

Annual Survey Report
Regional Solid Waste Disposal System
Southeastern Public Service Authority
of Virginia, Chesapeake, Virginia



March 2017



225 East Robinson Street, Suite 505
Orlando, FL 32801

This report has been prepared for the use of the client for the specific purposes identified in the report. The conclusions, observations and recommendations contained herein attributed to CH2M constitute the opinions of CH2M. To the extent that statements, information and opinions provided by the client or others have been used in the preparation of this report, CH2M has relied upon the same to be accurate, and for which no assurances are intended and no representations or warranties are made. CH2M makes no certification and gives no assurances except as explicitly set forth in this report.

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Contents

- 1 Introduction and Summary.....1-1**
 - 1.1 Purpose and Scope of Report 1-1
 - 1.2 The Authority 1-2
 - 1.3 The Regional Solid Waste Disposal System 1-3
 - 1.4 Significant Events During the Last Twenty-Four Months 1-5
 - 1.5 Solid Waste Quantities..... 1-6
 - 1.6 Findings 1-6

- 2 Organization and Management2-1**
 - 2.1 The Board of Directors 2-1
 - 2.2 Management and Personnel 2-1
 - 2.3 The Consulting Engineer 2-2
 - 2.4 The Trustee 2-3
 - 2.5 Legal Counsel 2-3
 - 2.6 Auditor 2-3
 - 2.7 Covenant to Construct the 1989 Project and Any Additional Project 2-5
 - 2.8 Use and Operation of Disposal System..... 2-6
 - 2.9 Payment of Lawful Charges 2-6
 - 2.10 Insurance..... 2-6
 - 2.11 No Inconsistent Action..... 2-7
 - 2.12 Contracts, Leases, and Other Agreements 2-7
 - 2.13 Covenant Against Sale or Encumbrance and Exceptions Thereto 2-7
 - 2.14 Budgets and Covenants as to Operating Expenses..... 2-8
 - 2.15 Subordinate Obligations 2-8
 - 2.16 No Additional Indebtedness Under the Senior Bond Resolution 2-8
 - 2.17 Planning 2-8
 - 2.18 Post 2018 Planning Efforts..... 2-8

- 3 Adequacy of Revenues and Other Financial Data3-1**
 - 3.1 Introduction 3-1
 - 3.2 Revenue Bonds Issued by the Authority..... 3-1
 - 3.3 Solid Waste Quantities..... 3-1
 - 3.4 Adequacy of Net Revenues..... 3-2
 - 3.5 Current Rates and Charges 3-4
 - 3.6 Quantity of Solid Waste Disposed 3-6
 - 3.7 Long-Term Debt 3-7
 - 3.8 Establishment of Fund and Accounts 3-7
 - 3.9 Debt Service Payments 3-7

- 4 Contracts4-1**
 - 4.1 Introduction 4-1
 - 4.2 Service Agreement with Wheelabrator Technologies Inc. 4-1
 - 4.3 Member Community Solid Waste Disposal Agreements..... 4-2
 - 4.4 Agreement with Suffolk 4-3
 - 4.5 The Ash Disposal Agreement 4-4
 - 4.6 The Navy Contract 4-4
 - 4.7 Navy Contract for Waste Disposal Services 4-4

5	Summary of Capital Projects.....	5-1
5.1	Introduction	5-1
5.2	Capital Budget Funding Strategy	5-1
5.3	Capital Improvements and Equipment Replacement.....	5-1
6	Maintenance and Operation of the Facilities.....	6-1
6.1	Introduction	6-1
6.2	Transfer Stations.....	6-1
6.2.1	Boykins Convenience Center	6-1
6.2.2	Chesapeake Transfer Station	6-2
6.2.3	Franklin Transfer Station.....	6-2
6.2.4	Isle of Wight Transfer Station	6-2
6.2.5	Ivor Convenience Center	6-3
6.2.6	Landstown Transfer Station.....	6-3
6.2.7	Norfolk Transfer Station	6-4
6.2.8	Oceana Transfer Station	6-4
6.2.9	Suffolk Transfer Station	6-5
6.2.10	Transportation Operations	6-5
6.2.11	Operating Records and Programs.....	6-7
6.3	The Regional Landfill.....	6-7
6.3.1	Closed Landfill Cells	6-8
6.3.2	Expansion of the Regional Landfill.....	6-8
6.3.3	Landfill Operations.....	6-9
6.3.4	Tires.....	6-9
6.3.5	White Goods	6-9
6.4	Landfill Gas Recovery System	6-10
6.5	Estimated Useful Life of the Regional Landfill	6-10
6.6	Maintenance of Rolling Stock and Mobile Heavy Equipment	6-10
6.7	Summary	6-13
7	Historical Information	7-1
7.1	Revenue Bonds Issued by the Authority.....	7-1
7.2	Additional Authority Actions	7-4
7.3	Virginia House Bill 1872	7-4
7.4	Purchase and Sale Agreement with Wheelabrator Technologies Inc.	7-5
7.4.1	Sale of the WTE Facilities.....	7-5
7.4.2	Purchase Agreement	7-5
7.5	2009 Restructuring of the Authority’s Debt and 2010 Sale of the WTE Facilities	7-6
7.6	Expansion of the Regional Landfill	7-7

Tables

1-1	Transfer Stations	1-3
1-2	Historical Waste Deliveries	1-6
2-1	Board of Directors.....	2-1
2-2	Authority Staff.....	2-1
2-3	Personnel Count by Function.....	2-2
2-4	Summary of Net Position June 30, 2016 and 2015.....	2-4
2-5	Summary of Revenues, Expenses, and Changes in Net Position	2-4
2-6	Summary of Operating Insurance in Effect as of March 2016.....	2-7
3-1	Historical Annual Solid Waste Deliveries	3-2
3-2	Historical Waste Deliveries by Member Communities	3-2
3-3	Historical Operating Results and Debt Service Coverage of the Disposal System for Fiscal Year 2016	3-3
3-4	Comparison of Budget and Actual Results of the Disposal System for the Period Ended December 31, 2016.....	3-3
3-5	Summary of Historical Operating Results for the Disposal System	3-4
3-6	Existing Rates and Charges	3-5
3-7	Revenues from Disposal Fees for Period Ended December 31, 2016.....	3-6
3-8	Summary of Annual Revenues from Disposal Fees	3-6
3-9	Summary of Outstanding Debt of the Authority	3-7
3-10	Status of Bonds Funds and Accounts as of December 31, 2016.....	3-7
3-11	Debt Service Requirements for All Authority Indebtedness.....	3-7
4-1	Annual Delivery Guarantee.....	4-1
4-2	Annual Fee	4-1
5-1	Capital Improvement Plan FY 2016 to FY 2019.....	5-2
6-1	Waste Quantities Received at Transfer Stations	6-6
6-2	Summary of Waste Disposed at the Regional Landfill.....	6-8
6-3	Equipment Operation and Maintenance Costs for Landfill and Transfer Stations, FY 2016	6-11
6-4	Equipment Operation and Maintenance Costs for Transportation, FY 2016	6-11
6-5	Cost Summary, FY 2016	6-11
6-6	Cost Summary, FY 2015	6-12
6-7	Cost Summary, FY 2014	6-12
6-8	Cost Summary, FY 2013	6-12
6-9	Cost Summary, FY 2012	6-13

Introduction and Summary

1.1 Purpose and Scope of Report

This report (the “Report”) was prepared by CH2M Hill Engineers, Inc. (“CH2M”) under a subcontract to Louis Berger Group (Domestic), Inc. (“Louis Berger” formerly Leidos Engineering, Inc., SAIC Energy, Environment & Infrastructure, LLC, and R. W. Beck, Inc.) as of February 19, 2016, except as otherwise noted herein, for the Southeastern Public Service Authority of Virginia (the “Authority” and/or “SPSA”) in accordance with Section 714 of the Guaranteed Subordinated Bond Resolution, Adopted May 14, 2009, as amended March 24, 2010, Authorizing and securing up to \$72,000,000 Guaranteed Subordinated Revenue Bonds, Refunding Series 2009 (Taxable) (hereinafter referred to as the “Guaranteed Subordinated Resolution” or “Resolution”). Section 714 of the Resolution requires that the Authority shall employ an independent engineer (the “Consulting Engineer”), who:

“Shall annually prepare and deliver to the Authority and the Trustee, on or before April 1 of each year, a report regarding the Disposal System and containing its recommendations concerning the proper maintenance, repair and operation of the Disposal System during the following Fiscal Year, any necessary changes in the services to be provided through the Disposal System during the following Fiscal Year, any additions, improvements or renewals or replacements that should be made during the following Fiscal Year, the estimated Gross Revenues necessary for such purposes, and any necessary revisions to the tipping fees. If in any Fiscal Year, Net Revenues Available for Debt Service are less than the amount required by Section 502, the Authority will direct the Consulting Engineer to make recommendations with respect to the revision of its tipping fees, improvements to or changes in the operations of the Disposal System or the services rendered by the Authority through the Disposal System”

Louis Berger was employed by the Authority to prepare the Report in accordance with the terms and conditions of a Professional Services Agreement dated December 9, 2011 by and between the Authority and Louis Berger, and CH2M was engaged by Louis Berger under the terms of Task Order Number 20PO007116, dated January 23, 2017, subject to the Master Services Agreement between Louis Berger and CH2M effective February 5, 2016. Collectively and individually, CH2M and Louis Berger are referred to as the “Consulting Engineers” for the purpose of this Report. The Consulting Engineers can offer no opinion regarding any matters discussed in the Report subsequent to March 3, 2017, except as specifically indicated in the Report.

Facility visits were conducted by a representative of CH2M during the period March 2 and 3, 2017 and this Report reflects the conditions observed at those times. During the course of its review, CH2M visited and made general observations of the subject facilities. The general field observations were visual, above ground examinations of selected areas which CH2M deemed adequate to allow it to comment on the existing condition of the subject facilities, but which were not in the level of detail necessary to reveal conditions with respect to geological or environmental conditions, the internal physical condition of any equipment, or conformance with agreements, codes, permits, rules, or regulations of any party having jurisdiction with respect to the subject facilities or sites.

Prior to the date of this Report, additional series of bonds other than the Guaranteed Subordinated Revenue Bonds were issued by the Authority and subsequently paid off or defeased. In this Report, reference may be made as a matter of historical fact to the Authority’s February 28, 1998 resolution, as amended, securing its senior subordinated bonds (the “Senior Subordinated Resolution”) and the Resolution Authorizing the Issuance of \$186,435,000 Senior Revenue and Revenue Refunding Bonds,

Series 1989 (Regional Solid Waste System) and Thereafter of Additional and Refunding Senior Revenue Bonds, Adopted August 16, 1989, as subsequently amended and restated, and last amended on March 24, 2010 (the “Senior Bond Resolution”). The Senior Resolution, Senior Subordinated Resolution, and Guaranteed Subordinated Resolution are referred to herein as the “Resolutions.”

1.2 The Authority

The Authority is a public body politic and corporate created in 1973 pursuant to the Virginia Water and Waste Authorities Act (formerly, the Water and Sewer Authorities Act). The members of the Authority are the Cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk, and Virginia Beach and the Counties of Isle of Wight and Southampton (collectively the “Member Communities”). The Authority is governed by a Board of Directors consisting of two representatives from each of the Member Communities. One member of the Board for each Member Community is selected by the Governor of the Commonwealth of Virginia from a list of three candidates nominated by each Member Community. All nominees must possess general business knowledge, and none shall be an elected official. Each Member Community appoints an ex-officio member as well who is an employee of that Member Community.

One of the purposes of the Authority, as stated in its articles of incorporation, is to acquire, finance, construct, operate, and maintain a garbage and refuse collection and disposal system.

In April 1984, the Authority issued its \$26,000,000 Guaranteed Revenue Bonds, Series A (Regional Solid Waste Project) (the “Phase I Bonds”), the proceeds of which were used primarily to finance the acquisition and construction of a landfill located in Suffolk (the “Regional Landfill”), seven transfer stations and supporting equipment, rolling stock, and ancillary facilities (collectively, “Phase I”). The Phase I Bonds were refunded in 1989.

In December 1984, the Authority issued its \$107,800,000 Senior Revenue Bonds, Series A (Regional Solid Waste System) (the “Series A Bonds”). Proceeds of the Series A Bonds were used to finance a refuse derived fuel plant and a fuel delivery system located on federally owned land in Portsmouth, Virginia (the “RDF Plant”), as well as a solid waste transfer station located in Suffolk, Virginia, and certain related equipment, rolling stock, and ancillary facilities (collectively with the RDF Plant, “Phase II”). The Series A Bonds were refunded in 1989.

Phase I and Phase II of the solid waste management system are referred to herein collectively as the “Disposal System.” The Disposal System has been developed by the Authority to provide an environmentally sound method for disposal of solid waste in the service area of the Authority (the “Service Area”). The Service Area covers approximately 2,000 square miles in southeastern Virginia and consists of the area served by the Member Communities.

Subsequent to 1984 and prior to July 1, 2008, the Authority issued a series of additional revenue bonds to meet the capital requirements of the Disposal System. All of those series of revenue bonds have been repaid or defeased. A description of the bonds that were issued subsequent to 1984 is set forth in Section 7 of this Report.

In May and June of 2009, the Authority undertook a restructuring of its debt. In May 2009 the Resolutions were amended, a Forbearance Agreement between the City of Virginia Beach and the Authority was executed, and a Guaranty Agreement among the Authority, the City of Chesapeake, and the City of Norfolk was executed. In the Forbearance Agreement, the City of Virginia Beach agreed to defer payment, operating and maintenance (“O&M”) costs incurred by the City of Virginia Beach for the operation of the Virginia Beach landfill and certain excess tipping fees paid to the Authority by the City of Virginia Beach. In June 2009, the Authority issued its \$71,985,000 Guaranteed Subordinated Revenue Bonds, Refunding Series 2009 (Taxable) to the Virginia Resources Authority (the “VRA”). The VRA's offer to purchase the Authority's bonds was contingent upon five of the Authority's members, the Cities of

Franklin, Portsmouth and Suffolk and the Counties of Isle of Wight and Southampton, guaranteeing the full and timely payment of the Authority's bonds.

In April 2010, the Authority sold its RDF Plant and power plant (collectively “WTE Facilities”) to Wheelabrator Technologies Inc. (“Wheelabrator” or “Company”) a company then affiliated with Waste Management, Inc. The Authority used the proceeds from the sale of the WTE Facilities to retire approximately \$122,100,000 of its long-term debt. Additional detail on the 2009 restructuring of the Authority’s debt and the 2010 sale of the WTE Facilities is provided in Section 7 of this Report. Descriptions of the bonds that were issued in the 2009 restructuring are provided in Section 3 of this Report.

In April 2010, with the sale of the WTE Facilities, the “Refuse Derived Fuels and Waste to Energy Facilities Service Agreement between Southeastern Public Service Authority and Wheelabrator Technologies, Inc.” (“Service Agreement”) dated September 9, 2009 became effective. The Service Agreement is described in more detail later in this Report. The Service Agreement requires Wheelabrator to assume certain operational responsibilities that previously had been the purview of the Authority. Shifting said responsibilities to Wheelabrator has allowed the Authority to more effectively manage its operations.

1.3 The Regional Solid Waste Disposal System

The Disposal System consists of the regional sanitary landfill located in the City of Suffolk, Virginia (the “Regional Landfill”); nine solid waste transfer stations and supporting equipment, rolling stock; ancillary facilities; and certain limited assets of the RDF Plant. Notwithstanding the sale of the WTE Facilities, the Authority maintains ownership of the RDF Plant tipping floor, the access and egress roadways at the RDF Plant, and the scales and scale house at the RDF Plant. The Authority believes maintaining government ownership of these assets will allow it to address any legal challenges to solid waste flow control.

The Disposal System’s nine transfer stations and their associated daily design capacity are presented in Table 1-1.

Table 1-1. Transfer Stations

Facility Name	Design Capacity (Tons/Day)
Boykins Transfer Station	50
Chesapeake Transfer Station	500
Franklin Transfer Station	150
Isle of Wight Transfer Station	150
Ivor Transfer Station	30
Landstown Transfer Station	1,500
Norfolk Transfer Station	1,300
Oceana Transfer Station	500
Suffolk Transfer Station	1,300

Source: The Authority

The Regional Landfill consists of two parcels of land, which total 833 acres in an undeveloped area of Suffolk, Virginia. The original parcel of land was 308 acres. The Authority subsequently acquired an adjacent 525 acres. Ancillary facilities at the Regional Landfill include truck scales with scale house, an

administrative/maintenance building, a tire processing facility, and a household hazardous waste collection facility. The Regional Landfill commenced operations in January 1985.

In the fiscal year (“FY”) ended June 30, 2016 (“FY 2016”), the Disposal System received and handled approximately 1,013,000 tons of waste, a 0.3 percent decrease from the approximately 1,016,000 tons of waste received the previous fiscal year. Approximately 393,000 tons were delivered by Member Communities, an increase of 1.6 percent from the prior year. SPSA only accepts commercial waste that is delivered on behalf of Wheelabrator at the transfer stations. The Disposal System typically accepts waste five and one-half days per week.

The Franklin Transfer Station is situated on an Authority-owned 3-acre site on Route 671, approximately 2 miles west of Franklin in Southampton County. In addition to the City of Franklin, this station also serves a portion of Southampton County and Isle of Wight County. This transfer station is equipped with a single truck scale and includes two small buildings. The tipping area is uncovered. It has been designed to be capable of handling up to 150 tons per average day.

The Chesapeake Transfer Station is situated on approximately 4.8 acres leased from the City of Chesapeake adjacent to its public works operation center. This facility has been designed to handle up to 500 tons per average day. This facility includes a hangar-type building and truck scales.

The Norfolk Transfer Station is situated on an Authority-owned 7-acre site near the intersection of Virginia Beach Boulevard and Ballentine Boulevard. The station is equipped with truck scales and a fully enclosed building. Capacity of this station is designed to be 1,300 tons per average day. This station operates 24-hours per day in order to efficiently deliver waste to the RDF Plant.

The Boykins and Ivor Convenience Centers are located in Southampton County. The Boykins Convenience Center is located on a leased 1-acre site while the Ivor Convenience Center is located on property owned by the Authority. These stations are designed to be capable of handling 50 and 30 TPD, respectively. The Boykins Convenience Center and the Ivor Convenience Center are currently attended by Southampton County personnel. Both stations have two open-top collection containers and a compactor.

The Isle of Wight Transfer Station, which is located on a leased site, is designed to be capable of handling up to 150 tons per average day. It is a hangar-type building equipped with a tipping floor and single truck scale located on a 4-acre site.

The Oceana Transfer Station is located in Virginia Beach on a four-acre site that is owned by the Virginia Department of Transportation (“DOT”). It is equipped with a hangar-type building, truck scale, and several small support buildings. The design capacity of the facility is 500 tons per average day.

The Landstown Transfer Station, located on a 13-acre site leased from the City of Virginia Beach, is designed to handle up to 1,500 tons per average day. This station is equipped with two truck scales and is a fully enclosed facility. This station operates 24-hours per day in order to efficiently deliver waste to the RDF Plant.

The Suffolk Transfer Station is located adjacent to the Regional Landfill in Suffolk. It is used to transfer solid waste from Suffolk to the RDF Plant for use as a fuel rather than dispose of such waste at the Regional Landfill. The Suffolk Transfer Station was designed to accommodate up to 1,300 tons per average day.

The Authority’s Regional Landfill historically accepted the solid waste that could not be processed at the RDF Plant or any portion of the RDF that could not be delivered to the power plant. However, as described in Section 4, since April 2010, this non-processible or diverted waste is being delivered to other landfills owned by Waste Management, Inc. (“Non-SPSA Landfills”), the former parent company of Wheelabrator. Currently, the Regional Landfill is accepting principally ash, soils, and construction and demolition debris.

The Authority operates three household hazardous waste (“HHW”) collection facilities. The HHW facility at the Regional Landfill is open five and one-half days per week, and satellite facilities at two transfer stations – Chesapeake and Franklin – are open on a rotating schedule. At the Regional Landfill, SPSA also operates programs to accept and process white goods (e.g., old appliances and similar metal waste) and a tire shredding operation.

The Authority currently focuses on its primary activities of waste transfer and disposal.

1.4 Significant Events During the Last Twenty-Four Months

As of the date of this Report, the Authority has redeemed or defeased all outstanding debt except for its Guaranteed Subordinated Revenue Bonds, Refunding Series 2009. The Authority reports that in November 2017 it will make its final payment on these bonds. Therefore, this will be the last Report prepared pursuant to the Bond Resolutions.

As of the date of this Report, the Authority has executed with each Member Community an identical Agreement for Use and Support of a Solid Waste Disposal System that will become effective January 25, 2018 (the “New Use and Support Agreements”). The New Support and Use Agreements define the roles and responsibilities of SPSA and the Member Communities in continuing the operations and maintenance of a solid waste disposal system through June 30, 2027 and subsequent 10-year renewal periods. The existing agreements between SPSA and the Member Communities, as described in Report Section 4, will remain in full effect through January 24, 2018, which is beyond the retirement date of the Guaranteed Subordinated Revenue Bonds.

On May 23, 2016, SPSA and Suffolk entered into an agreement titled Host Community and Good Neighbor Agreement between the City of Suffolk and the Southeastern Public Service Authority of Virginia (the “Good Neighbor Agreement”). The Good Neighbor Agreement describes the roles and responsibilities of Suffolk and SPSA concerning SPSA’s continued operation of the Regional Landfill. The term of the agreement is for 20 years, Suffolk will support SPSA’s efforts to obtain a modified conditional use permit to expand the Regional Landfill, and after January 25, 2018 Suffolk will be obliged to pay SPSA the prevailing tipping fee for waste delivered to SPSA facilities and SPSA will be obliged pay to Suffolk an initial host fee of four dollars (\$4.00) for each ton of solid waste disposed into the Regional Landfill. The significant changes addressed in the Good Neighbor Agreement will take effect after the Guaranteed Subordinated Revenue Bonds mature and are redeemed.

On March 4, 2016, the Authority entered into a Waste Supply and Services Agreement with RePower South Chesapeake, LLC (“RePower”) for waste disposal services after the expiration of the Services Agreement in January 2018. Any changes to the operations of the Authority associated with the agreement with RePower are not scheduled to take effect until after the Guaranteed Subordinated Revenue Bonds, Refunding Series 2009 mature and are redeemed.

The Consulting Engineers have not reviewed the agreement with RePower, nor have the Consulting Engineers reviewed The New Support and Use Agreements or the Good Neighbor Agreement or other post-2018 disposal matters; therefore, the Consulting Engineers can offer no opinion regarding the technical or financial viability of any of the matters under consideration but recommend that the matters be very carefully evaluated by SPSA’s Board of Directors and management.

On December 31, 2015, the Virginia Beach Ash and Residue Agreement (as described in Section 4 of this Report) terminated. As of January 1, 2016, Virginia Beach is no longer entitled to a rebate on tipping fees, meaning that Virginia Beach is required to pay the same tipping fee as other Member Communities (except Suffolk), and that SPSA is no longer obligated to pay certain operating costs incurred at the Virginia Beach Landfill.

1.5 Solid Waste Quantities

Since 2010, with the sale of the WTE Facilities to Wheelabrator, the Authority only accepts on its behalf solid waste from the Member Communities. SPSA transfers commercial solid waste on Wheelabrator’s behalf, for a credit on its monthly invoice from Wheelabrator that is intended to be representative of a hauling fee, all as set forth in the Service Agreement. The Authority does not collect a tip fee for the transfer of commercial waste.

In FY 2016, the Authority observed a slight decrease (0.3 percent) in tonnage delivered. Presented in Table 1-2 is a summary of the total solid waste deliveries to the Disposal System during the last five fiscal years. Overall, waste deliveries to the Disposal System over the last five years have increased by 3.7 percent.

Table 1-2. Historical Waste Deliveries

Fiscal Year	Tons ⁽¹⁾ (000)	Percent Change from Previous Year (Percent)
2012	977	(1.7)
2013	951	(2.7)
2014	933	(1.9)
2015	1,016	8.9
2016	1,013	(0.3)

Source: The Authority

(1) Tonnage values include both municipal and commercial deliveries, but not proprietary waste.

1.6 Findings

Based upon our review of the Disposal System, our principal findings are as follows:

1. The Disposal System is currently being operated and maintained in good condition. The Authority appears to be effecting repairs and performing regular maintenance on its sites and facilities.
2. The Authority is continuing to operate as an organization focused on the disposal of solid waste. With the sale of the WTE Facilities and implementation of the Service Agreement with Wheelabrator in April 2010, the Authority shifted to Wheelabrator the responsibility to transport and dispose of non-processible and diverted processible waste with the effect of (a) reducing waste deliveries to the Regional Landfill and extending the life of the currently developed cells, and (b) allowing the Authority’s transfer operations to focus principally on the movement of processible solid waste from the Authority’s transfer stations to the WTE Facilities for disposal.
3. The revenues for the Disposal System that the Authority estimates it will realize from tipping fees, when combined with estimated interest income and other sources of revenues, are projected by the Authority to be sufficient in FY 2017 to provide, as required by the Guaranteed Subordinated Resolution, at least 100 percent of all indebtedness and obligations of the Authority (the “Guaranteed Subordinated Bonds Rate Covenant”).
4. The actual operating revenues for the Disposal System which the Authority reported it realized from tipping fees and other sources of revenues for the 12 months July 1, 2015 through June 30, 2016, when combined with reported interest income, provided an amount sufficient to meet the Guaranteed Subordinated Bond Rate Covenants for the 12-month period ended June 30, 2016.

5. The actual operating revenues for the Disposal System which the Authority reported it realized from tipping fees and other sources of revenues for the six months from July 1, 2016 through December 31, 2016, when combined with reported interest income were sufficient to pay all the O&M expenses of the Disposal System and the pro-rata share of debt service payments on the outstanding indebtedness for the six-month period ended December 31, 2016.
6. Authority staff projects that the revenues the Authority will realize from: (a) tipping fees; (b) interest income; and (c) other sources of revenues, will be sufficient to provide meet or exceed the requirements of the Guaranteed Subordinated Bonds Rate Covenants until these bonds are retired in November 2017.

Organization and Management

2.1 The Board of Directors

The Authority is governed by a Board of Directors consisting of representatives from each of the Member Communities. There are 16 board members, two for each Member Community. The Governor of the Commonwealth of Virginia appoints one board member to represent each Member Community. The Member Communities each appoint a second, ex-officio board member. The current members of the Authority's Board of Directors and their affiliations are as follows:

Table 2-1. Board of Directors

Member	Ex-Officio Member	Community
Mr. Marley A. Woodall, Jr.	Mr. Eric J. Martin, P.E.	Chesapeake
Mr. Everett C. Williams, Jr.	Mr. H. Taylor Williams, IV, Esquire	Franklin
Mr. Roy W. Chesson	Mr. Randy Keaton	Isle of Wight County
Mr. John Keifer	Mr. Richard Broad	Norfolk
Mr. C.W. "Luke" McCoy	Ms. Cheran D. Cordell, Esquire	Portsmouth
Mr. Mark H. Hodges	Mr. Michael W. Johnson	Southampton County
Mr. David L. Arnold	Mr. Patrick Roberts	Suffolk
Mr. William A. Sorrentino, Jr.	Mr. John C. Barnes	Virginia Beach

Note: As of March 3, 2017

2.2 Management and Personnel

The key members of the Authority's staff are as follows:

Table 2-2. Authority Staff

Position	Name	Employed by the Authority Since
Executive Director	Rowland L. Taylor	August 2008
Deputy Executive Director and Chief Financial Officer	Liesl R. DeVary	May 2009

The Authority's Executive Director is Rowland Taylor. Mr. Taylor's professional experience includes employment as the Franklin City Manager and as Southampton County Administrator, and his educational experience includes a Master's Degree from Old Dominion University and a Bachelor's Degree from the University of Richmond. Liesl DeVary holds the positions of Deputy Executive Director and Chief Financial Officer. Ms. DeVary's professional experience includes employment as the Director of Budget and Finance for the County of Isle of Wight and finance director for local government agencies in Pennsylvania, and her educational experience includes a Bachelor's Degree from Old Dominion University.

The budgeted staffing level for FY 2017 is 143.75 full-time equivalent positions (FTE). A detail description of personnel count by function is shown in Table 2-3. Note that in some cases personnel serve multiple functions, which is represented by fractions of a FTE in Table 2-3.

Table 2-3. Personnel Count by Function

	FY 2017
Administration	
Accounting	2.2
Executive Offices	2.2
Human Resources	1.2
Purchasing	1.2
Information Technology	<u>2.2</u>
Subtotal	9
Environmental Management	
Environmental Management	6
Operations	
Safety	2
Regional Landfill	11.5
Tire Shredder	3
Fleet Maintenance	16
Transportation	40.5
Chesapeake Transfer Station	6.21
Franklin Transfer Station	3.71
Isle of Wight Transfer Station	3.71
Landstown Transfer Station	9.22
Norfolk Transfer Station	11.22
Oceana Transfer Station	5.21
Suffolk Transfer Station	5.21
Scale House Operations	<u>11.25</u>
Subtotal	<u>128.75</u>
TOTAL	143.75

2.3 The Consulting Engineer

Section 714 (a) of the Resolution states:

“(a) The Authority covenants that it will, for the purpose of performing and carrying out the duties imposed on the Consulting Engineer by this Resolution, employ an independent engineer or engineering firm or corporation having a nationwide and favorable repute for skill and experience in such work. R. W. Beck and Associates, Denver, Colorado, are now employed by the Authority as such Consulting Engineer.”

Louis Berger, (as the successor company to Leidos Engineering, Inc., SAIC Energy, Environment & Infrastructure, LLC, and R. W. Beck) has provided consulting engineering services to the Authority since

1978. CH2M is preparing this Report under an agreement with Louis Berger, as described above. This Report has been prepared in accordance with the terms and conditions of the Professional Services Agreement between Louis Berger and SPSA dated as of December 9, 2011, and the Task Order between CH2M and Louis Berger dated January 23, 2017.

2.4 The Trustee

U.S. Bank National Association was appointed by the Authority as Trustee for all outstanding bonds in 2006, and continues to serve in this capacity.

2.5 Legal Counsel

The law firm of Willcox & Savage, P.C., (“Willcox & Savage”) of Norfolk, Virginia serves as Counsel to the Authority and is retained by the Authority to render legal opinions, counsel, and advice.

In a letter, dated March 15, 2017, CH2M was advised by Henry J. Huelsberg, III of Willcox & Savage that as of the date of his letter, there was no outstanding litigation for which his firm was representing SPSA. However, Mr. Huelsberg did state that on January 25, 2017, “SPSA reported to the Virginia Department of Environmental Quality (the “DEQ”) the existence of an unusual condition at the Regional Landfill, consisting of leachate volumes in excess of applicable DEQ permit limits (the “Unusual Leachate Condition”). As required by regulation, SPSA followed this oral notice with a written report to the DEQ regarding the Unusual Leachate Condition, which was delivered on January 30, 2017. SPSA executive staff and professional advisors have since met with DEQ staff and provided the DEQ with additional written reports and updates. While the DEQ has not, to date, taken any formal action with regards to the Unusual Leachate Condition, we have advised SPSA (including its Board of Directors) that this type of condition typically results, at a minimum, in a “Notice of Violation from the DEQ. We now provide you with this information regarding the Unusual Leachate Condition to the extent it is relevant in connection with your preparation of the report.”

2.6 Auditor

Dixon Hughes Goodman LLP, Certified Public Accountants and Advisors, (the “Accountants”) was engaged by the Authority to make an independent audit report of the Authority, in accordance with Section 709 of the Resolution, which states in part that:

“The Authority further covenants that within ninety (90) days after the close of each Fiscal Year, it will cause an audit to be made of its books and accounts relating to the Disposal System for the preceding Fiscal Year by an Accountant. The opinion of the Accountant accompanying such audit shall state that the examinations were made in accordance with generally accepted auditing standards and that the financial statements have been presented in conformity with generally accepted accounting principles.”

The Authority represents that the audit was completed within 90 days of the close of the fiscal year. The audit report for FY 2016 was submitted to the Authority on October 12, 2016.

Summaries of information included in the Summary of Net Position and Summary of Revenues, Expenses, and Changes in Net Position for the FY 2016 and FY 2015 are presented as Tables 2-4 and 2-5, respectively.

Table 2-4. Summary of Net Position June 30, 2016 and 2015

	2016	2015
Assets and Deferred Outflows of Resources:		
Current and Other Assets	\$39,890,630	\$37,149,254
Capital Assets, Net	27,543,544	29,626,836
Deferred Outflows of Resources	<u>904,382</u>	<u>996,162</u>
Total Assets and Outflows of Resources	68,338,556	67,772,252
Liabilities and Deferred Inflow of Resources:		
Current Liabilities	16,793,653	10,646,504
Long-term Liabilities	27,522,994	37,600,947
Deferred Inflows of Resources	<u>1,269,015</u>	<u>2,820,232</u>
Total Liabilities and Deferred Inflows of Resources	45,585,662	51,067,683
Net Position:		
Invested in Capital Assets, Net of Related Debt	7,070,375	5,976,704
Restricted	15,124,172	9,097,328
Unrestricted	<u>558,347</u>	<u>1,630,537</u>
Total Net Position	<u>22,752,894</u>	<u>16,704,569</u>
Total Liabilities and Deferred Inflows of Resources and Net Position	<u>\$68,338,556</u>	<u>\$67,772,252</u>

Source: Audit Report prepared by Dixon Hughes Goodman LLP, dated October 12, 2016.

Table 2-5. Summary of Revenues, Expenses, and Changes in Net Position

	2016	2015
Operating Revenue		
Municipal Tipping Fees	\$44,029,345	\$42,869,861
Other Tipping Fees	2,619,052	2,246,759
Other Operating Revenue	<u>948,163</u>	<u>1,025,891</u>
Total Operating Revenue	<u>47,596,560</u>	<u>46,142,511</u>
Operating Expenses:		
Personnel	8,083,027	8,445,184
Depreciation and Amortization	3,975,772	4,257,597
Routine Maintenance Operations	2,878,016	2,953,534
Ash and Residue Agreement	5,046,780	9,790,243
Wheelabrator Service Contract	18,614,921	15,491,594
Other Operating Expenses	<u>2,973,155</u>	<u>2,848,211</u>
Total Operating Expenses	<u>41,535,671</u>	<u>43,786,363</u>
Operating Income	<u>6,060,889</u>	<u>2,356,148</u>
Nonoperating Revenue (Expense):		
Gain (Loss) on Sale of Assets	51,426	110,950
Investment Income	239,490	109,037
Interest Expense	(1,274,817)	(1,204,551)
Other Income (Expense), Net	<u>917,337</u>	<u>(6,984)</u>
Total Non-Operating Revenue (Expense)	<u>(12,564)</u>	<u>(991,548)</u>
Change in Net Position	6,048,325	1,364,600
Change in Net Position		
Net Position:		
Beginning of Year	<u>16,704,569</u>	<u>15,339,969</u>
End of Year	<u>\$22,752,894</u>	<u>\$16,704,569</u>

Source: Audit Report prepared by Dixon Hughes Goodman LLP, dated October 12, 2016.

Included among the comments in the audit were the following:

- It is important to note that the \$44 million in municipal tipping fees excludes the rebate that is paid to the City of Virginia Beach for tipping fees paid in excess of a capped rate, as established in the ash and residue agreement. The City of Virginia Beach is the largest of the Authority's eight member communities, providing approximately 33 percent of the municipal waste quantities. The ash and residue agreement between the City and the Authority provides for maximum levels for the City of Virginia Beach's tipping fees. As of fiscal year 2015, the City of Virginia Beach's tipping fee was capped at \$65.35 per ton, however, beginning January 1, 2016 the City of Virginia Beach paid the full rate of \$125 per ton, as did all other municipalities except the City of Suffolk (which as host to the regional landfill pays no tipping fee). In accordance with Governmental Accounting Standards Board (GASB), the tipping fees paid by the City of Virginia Beach must be reported at the gross amount with the rebate illustrated as an expense. Of the \$5.05 million expense for the "ash and residue agreement", approximately \$850,000 is for operating and maintaining the Virginia Beach landfill and \$4.2 million represents the rebate or excess tipping fees paid by the City in accordance with the 1985 Ash and Residue Agreement.
- The Authority's operating expenses decreased approximately 5 percent or \$2.25 million in comparison to the prior fiscal year. This decrease is primarily attributed to the end of the Ash and Residue Agreement with the City of Virginia Beach effected December 31, 2015.
- Personnel costs decreased by \$362,157 primarily due to recording the Authority's fiscal year 2016 contributions to the VRS as a Deferred Outflow of Resources. Although the equipment at the landfill is experiencing increased wear and tear due to the handling of ash, routine maintenance decreased by approximately \$76,000.
- Legal and professional fees increased by approximately \$622,493 due to the completion of several significant agreements, such as a (1) Good Neighbor/Host Agreement with the City of Suffolk, (2) Use and Support Agreement with the Authority's member localities and, (3) execution of a Waste Supply Agreement with RePower South for waste disposal services beginning January 25, 2018.
- The costs associated with the Wheelabrator Service Contract reflect an increase in costs of approximately \$3.12 million or 20 percent as compared to the prior year. The Authority receives various credits against its invoice to Wheelabrator. In FY 2016, the Authority received approximately \$1.64 million less in credits for hauling commercial waste. A contract Wheelabrator had with an authorized hauler was not renewed July 1, 2015 whereby reducing the tons of commercial waste received at the Authority's transfer station. Additionally, the Authority did not receive as many credits for diverted waste as compared to fiscal year 2015.

2.7 Covenant to Construct the 1989 Project and Any Additional Project

In Section 704 of the Resolution, the Authority covenants that, "it will cause the capital improvements to the Disposal System to be in conformity with law and all requirements of all governmental authorities having jurisdiction of this Resolution"

The Authority has caused all capital improvements to be completed substantially as so contemplated.

2.8 Use and Operation of Disposal System

Section 705 of the Resolution states:

“The Authority covenants that it will establish and enforce reasonable rules and regulations governing the use of the Disposal System and the operation thereof, that all conditions of employment and all compensation, salaries, fees, and wages paid by it in connection with the maintenance, repair and operation of the Disposal System will be reasonable, that no more persons will be employed by it than are necessary, that all persons employed by it will be qualified for their respective positions, that it will maintain and operate the Disposal System in an efficient and economical manner, that, from Gross Revenues and from any other available moneys, it will at all times maintain the same in good repair and in sound operating condition and will make all necessary repairs, renewals and replacements, and that it will comply, subject to the right to contest, with all valid acts, rules, regulations, orders and directives of any legislative, executive, administrative or judicial body applicable to the Disposal System.”

Based upon our review of the Disposal System, as described in Section 6 of this Report, we are of the opinion that the Disposal System has been operated and maintained in good repair. At the time of Consulting Engineer’s visit, it was observed that certain capital repairs, including those in process during our last visit had been completed.

2.9 Payment of Lawful Charges

In Section 706 of the Resolution states:

“The Authority covenants that, except as provided in the Resolution, it will not create or suffer to be created any lien or charge upon the Disposal System or upon the Gross Revenues, other than the lien created by this Resolution, but at all times subject to the provisions of Section 505 hereof, and that, from such Gross Revenues or other available funds, it will pay all taxes and assessments, or payments in lieu thereof, or other municipal or governmental charges lawfully levied or assessed upon the Authority or the Disposal System or the Gross Revenues, and that it will pay or cause to be discharged, or will make adequate provision to satisfy and discharge, within sixty (60) days after the same shall accrue, all lawful claims and demands for labor, materials, supplies or other objects which, if unpaid, might by law become a lien upon the Disposal System or the Gross Revenues...”

CH2M has reviewed this matter with the management of the Authority, and they have advised that the Authority has complied with the requirements of Section 706 of the Resolution.

2.10 Insurance

Section 707 of the Resolution states:

“The Authority covenants that it will maintain a practical insurance program, with reasonable terms, conditions, provisions and costs, which the Authority determines (i) will afford adequate protection against loss caused by damage to or destruction of the Disposal System or any part thereof and (ii) will include reasonable liability insurance on all of the Disposal System for bodily injury and property damage resulting from the construction or operation of the Disposal System.”

In 2016, the Authority obtained property and general liability insurance through VML Insurance Programs, a municipal pooled insurance program. CH2M has reviewed this matter with the management of the Authority, and the Authority states that its insurance program complies with the requirements of Section 707 of the Resolution.

A list of those insurance policies reported by the Authority to be in effect as of March 2016 is presented in Table 2-6.

Table 2-6. Summary of Operating Insurance in Effect as of March 2016

Coverage	Limits	Insurer(s)	Policy Number	Policy Term
General Liability	\$1,000,000	VML Insurance Program	P-2016-2017-VML-0707-1	7/1/16 - 7/1/17
Public Officials Liability	Included in GL	VML Insurance Program	P-2016-2017-VML-0707-1	7/1/16 - 7/1/17
Excess Liability	\$10,000,000	VML Insurance Program	P-2016-2017-VML-0707-1	7/1/16 - 7/1/17
Automobile Liability	\$1,000,000	VML Insurance Program	P-2016-2017-VML-0707-1	7/1/16 - 7/1/17
Crime)	\$500,000	VML Insurance Program	P-2016-2017-VML-0707-1	7/1/16 - 7/1/17
Property	\$33,489,935	VML Insurance Program	P-2016-2017-VML-0707-1	7/1/16 - 7/1/17
Miscellaneous Equipment	\$13,080,123	VML Insurance Program	P-2016-2017-VML-0707-1	7/1/16 - 7/1/17
Workers Compensation	Per Virginia Statue	VML Insurance Program	P-2016-2017-VML-0707-1	7/1/16 - 7/1/17
Pollution	\$5,000,000	Chartis	P-2014-2015-VML-0707-2	10/1/14 - 10/1/17
UST/AST - Storage Tanks	\$2,000,000/\$1,000,000	Great American Alliance	BTA 5236961-12	7/1/16 - 7/1/17

Source: The Authority

2.11 No Inconsistent Action

Section 708 of the Resolution states:

“The Authority covenants that none of the Gross Revenues will be used for any purpose which is inconsistent with the provisions of this Resolution and that no contract or contracts will be entered into or any action taken by it which shall be inconsistent with the provisions of this Resolution.”

CH2M has reviewed this matter with the management of the Authority, and they have advised that the Authority has complied with the requirements of Section 708 of the Resolution.

2.12 Contracts, Leases, and Other Agreements

Section 710 of the Resolution requires, in part, that if the Authority enters into a contract, lease, or other agreement whereby the amount payable by or to the Authority in the then current or any subsequent fiscal year under any such lease, contract, or agreement, or any amendment or rescission thereof, shall exceed 5 percent of the Gross Revenues of the Authority for the preceding fiscal year, then, the Authority shall expressly determine by resolution, and shall obtain a statement from the Consulting Engineer affirming such determination, that such lease, contract, or agreement, or amendment or rescission thereof, does not materially impair the ability of the Authority to meet its rate covenant set forth in Section 502 of the Resolution.

CH2M has reviewed this matter with the management of the Authority, and they have advised that the Authority has complied with the requirements of Section 710 of the Resolution.

2.13 Covenant Against Sale or Encumbrance and Exceptions Thereto

Section 711 of the Resolution states that the Authority covenants that, except as Section 711, Section 717, and Section 710 of the Resolution otherwise permit, the Authority will not sell, exchange, or dispose of or encumber the Disposal System or any part thereof.

CH2M has reviewed this matter with the management of the Authority, and they have advised that the Authority has complied with the requirements of Section 711 of the Resolution.

2.14 Budgets and Covenants as to Operating Expenses

Section 712 of the Resolution states that, “The Authority covenants that on or before the 15th day of May, 2010 and of each Fiscal Year thereafter, it will prepare, with respect to the Disposal System, a preliminary budget of gross revenues and operating expenses and a preliminary budget of capital expenditures for the ensuing Fiscal Year and file copies of each such preliminary budget with the Trustee.”

As of the date of this Report, SPSA had not completed its draft FY 2017 budget.

2.15 Subordinate Obligations

Section 715 of the Resolution addresses the requirements the Authority must meet with regard to issuing subordinate obligations. As of June 30, 2014, the Authority’s outstanding subordinate obligations consisted only of the Guaranteed Subordinated Refunding Bonds, Taxable Series 2009.

2.16 No Additional Indebtedness Under the Senior Bond Resolution

Section 717 of the Resolution covenants that the Authority will not issue or otherwise incur any Senior Bonds or Parity Indebtedness under the Senior Bond Resolution. CH2M has reviewed this matter with the management of the Authority, and they have advised that the Authority has complied with the requirements of Section 717 of the Resolution.

2.17 Planning

On August 6, 2012, SPSA and the Hampton Roads Planning District Commission (“HRPDC”) were advised by the Virginia Department of Environmental Quality (“DEQ”) that the DEQ had designated the HRPDC as the Regional Solid Waste Planning Agency for the SPSA Service Area.

On July 22, 2015, the HRPDC submitted to the DEQ a Letter of Certification that certified that important elements of the Regional Solid Waste Management Plan have been maintained and updated.

2.18 Post 2018 Planning Efforts

As described in Report Section 1.4, in anticipation of continuing to provide solid waste disposal services after 2018, as of the date of this Report, SPSA had entered into New Support and Use Agreements with each of the Member Communities, a Good Neighbor Agreement with Suffolk, and the Waste Supply and Services Agreement with RePower. The Consulting Engineers have not reviewed the subject agreements; therefore, the Consulting Engineers can offer no opinion regarding the technical or financial viability of any of the matters under consideration but recommend that the matters be very carefully evaluated by SPSA’s Board of Directors and management. Any changes to the operations of the Authority associated with the subject agreements is not scheduled to take effect until after the Guaranteed Subordinated Revenue Bonds, Refunding Series 2009 mature and are redeemed.

Adequacy of Revenues and Other Financial Data

3.1 Introduction

The Guaranteed Subordinated Rate Covenant in the Guaranteed Subordinated Resolution reads as follows:

“The Authority further covenants that it will at all times fix, charge and collect reasonable rates and charges for the use of, and for the services and facilities furnished by, the Disposal System and that from time to time, and as often as it shall appear necessary, it will adjust such rates and charges so that the Net Revenues in each Fiscal Year be sufficient to provide, together with any other funds available therefor, during such Fiscal Year an amount at least equal to one hundred percent (100%) of the Net Accrued Debt Service in such Fiscal Year on all outstanding Indebtedness and any other obligations of the Authority payable from Net Revenues.”

3.2 Revenue Bonds Issued by the Authority

Between 1984 and 2009, the Authority issued a number of revenue bonds to meet its capital obligations. Such bonds have either been repaid or defeased with the exception of the 2009 Subordinated Refunding Bonds. Historical information concerning the Authority’s bonds that are no longer outstanding is provided in Section 7.

In June 2009, the Authority issued its \$71,985,000 Guaranteed Subordinated Revenue Bonds, Refunding Series 2009 (Taxable) to the VRA to 1) to partially refund certain series bonds previously issued by VRA, and 2) defease the Authority's 1993A Refunding Bonds, 2004A Refunding Bonds, and 2004B Refunding Bonds, in an aggregate total of \$78,950,000. As of March 2016, this is the Authority’s only series of bonds that have not been defeased or paid off.

3.3 Solid Waste Quantities

Prior to the sale of the WTE Facilities in 2010, SPSA managed waste delivered by or on behalf of the Member Communities as well as private hauler waste. Currently SPSA only manages that waste delivered on behalf of the Member Communities. Private haulers contract directly with Wheelabrator for the disposal of commercial waste. SPSA transfers the commercial waste delivered to its transfer stations to the RDF Plant, and per the Service Agreement, the Authority receives a credit on its monthly invoice from Wheelabrator, which is intended to be representative of a hauling fee. Presented in Table 3-1 is a summary of reported solid waste deliveries to the Disposal System during the last ten fiscal years.

Table 3-1. Historical Annual Solid Waste Deliveries

Fiscal Year	Tons⁽¹⁾ (000)	Percent Change from Previous Year
2007	1,578	6.5
2008	1,513	(4.1)
2009	1,139	(24.7)
2010	1,011	(11.2)
2011	994	(1.7)
2012	977	(1.7)
2013	951	(2.7)
2014	933	(1.9)
2015	1,016	8.9
2016	1,013	(0.3)

Source: The Authority

(1) Tonnage values do not include proprietary waste

With the implementation of the Service Agreement in April 2010, the Authority does not receive tipping fee revenue for all tons reported. For commercial waste received at the transfer stations and hauled to the RDF Plant on behalf of Wheelabrator, the Authority receives a credit on its monthly invoice from Wheelabrator representative of a hauling fee, but the Authority does not receive tipping fees for this waste.

The Member Communities deliver only a portion of the total waste deliveries received by the Disposal System. Presented in Table 3-2 is a summary of historical waste deliveries by the Member Communities during the last five fiscal years. Waste deliveries increased by 1.6 percent in FY 2016 compared to FY 2015. From FY 2012 to FY 2016, waste deliveries have decreased by 4.6 percent.

Table 3-2. Historical Waste Deliveries by Member Communities

Fiscal Year	Waste Deliveries⁽¹⁾ (000 Tons)	Percent Change from Previous Year
2012	412	0.7
2013	403	(2.2)
2014	380	(5.7)
2015	387	1.8
2016	393	1.6

Source: The Authority

(1) Tonnage values reflect waste delivered by or on behalf of the member communities, and no other waste from within the jurisdictions

3.4 Adequacy of Net Revenues

The reported operating results and debt service coverage requirements for FY 2016, as prepared by the Authority, are presented in Table 3-3.

Table 3-3. Historical Operating Results and Debt Service Coverage of the Disposal System for Fiscal Year 2016

Disposal System Revenues ⁽¹⁾	\$48,267,022
Less: Disposal System Operating Expenses ⁽²⁾	<u>(35,243,378)</u>
Net Disposal System Revenues	<u>\$13,023,644</u>
Guaranteed Subordinated Debt Coverage (Debt Coverage on All Indebtedness)	
Net Revenues must = or > 1.0 x Total Debt	
Senior Debt	\$ 0
Senior Subordinated Debt	0
Guaranteed Subordinated Debt	<u>9,952,342</u>
Total Debt Service Payment	9,952,342
Coverage Requirement x 1.00	9,952,342
Net Revenue	<u>13,023,644</u>
Coverage Requirement is Exceeded by	<u>\$3,071,302</u>
(1) As developed by the Authority, the Disposal System Revenue number includes the following components:	
1. Disposal System revenue from Trial Balance -----	\$46,605,142
2. Less amount for Pension Income -----	---- (540,365)
3. Less Net Gain on Disposal of Assets -----	<u>(51,426)</u>
Disposal System Revenue -----	\$48,267,022
(2) As developed by the Authority, the Disposal System Operating Expenses adjusted for coverage:	
1. Total Disposal System Expenses -----	\$32,180,089
3. Plus Pay as You Go Equipment Replacement -----	2,207,318
4. Plus Ash & Process Residue Agreement Payment -----	855,971
5. Plus DEQ Letter of Credit Fees -----	<u>0</u>
Disposal System Operating Expenses Adjusted for Coverage -----	\$35,243,378

Based on these reported operating results, the Authority had adequate funds available from operations, interest earnings, and capitalized interest during FY 2016 to meet the amended Rate Covenants requirement set forth in Section 502 of the Resolution.

The reported operating results for the six-month operating period ended December 31, 2016 and a comparison to the budget are presented in Table 3-4.

Table 3-4. Comparison of Budget and Actual Results of the Disposal System for the Period Ended December 31, 2016

	Budget Six Months Ended December 31, 2016	Actual Six Months Ended December 31, 2016
Disposal System		
Total Operating Revenue	\$23,164,718	\$24,320,521
Less: Operating Expenses (Excluding Depreciation Expense)	<u>17,027,833</u>	<u>15,369,288</u>
Operating Income	\$6,136,885	\$8,951,233
Funds Available for Debt Service Payment	\$6,136,885	\$8,951,233
Less: Total Accrued Debt Service and Other Indebtedness	<u>5,367,989</u>	<u>5,541,426</u>
Balance Available after Debt Service Payment	768,896	3,409,807
Less: Other Uses [Suffolk Environmental Trust Fund]	<u>2,500</u>	-
Disposal System Operating Surplus (Loss)	<u>\$766,396</u>	<u>\$3,409,807</u>

Source: The Authority.

The reported operating results for the first six months of the current fiscal year indicate that for the Disposal System, the Authority reports that it had sufficient funds from the Disposal System operating revenues and interest income to meet the pro-rata share of the annual debt service requirement of the Disposal System.

A summary of historical operating results and debt service coverage for the last five fiscal years is shown in Table 3-5.

Table 3-5. Summary of Historical Operating Results for the Disposal System

Fiscal Year	2012	2013	2014	2015	2016
Solid Waste Received (000 tons) ⁽¹⁾	977	951	933	1,016	1,013
System Revenues (000) ⁽²⁾	\$56,316	\$48,537	\$45,863	\$46,495	\$48,028
Interest Income (000) ⁽³⁾	\$62	\$39	\$51	\$110	\$239
Gross Revenues (000) ⁽⁴⁾	\$56,378	\$48,576	\$45,914	\$46,605	\$48,267
Operating Expenses (000) ⁽⁵⁾	\$30,337	\$34,141	\$31,585	\$31,806	\$35,243
Net Revenues (000) ⁽⁴⁾	\$26,041	\$14,435	\$14,329	\$14,799	\$13,024
Debt Service Senior Bonds (000) ⁽⁶⁾	\$3,709	\$-	\$-	\$-	\$-
Debt Service Coverage Senior Bonds ⁽⁷⁾	7.02	-	-	-	-
Debt Service All Indebtedness (000)	\$9,281	\$2,338	\$6,058	\$5,250	\$9,952
Debt Service Coverage All Indebtedness ⁽⁸⁾	2.81	6.17	2.37	2.82	1.31

Source: The Authority.

- (1) Proprietary Waste not included.
- (2) Disposal System Revenues per June 30 Trial Balance plus interest income.
- (3) "Interest Income" as per the June 30 Trial Balance, less investment income on invested balances in the Suffolk and Virginia Beach Environmental Trust Funds.
- (4) As defined in the Senior Bond Resolution.
- (5) "Operating expenses" as per the audited Financial Statements, less expenses associated with the WTE Plant, depreciation/depletion and landfill/post-closure costs (non-cash items). As defined in the Senior Bond Resolution.
- (6) Excluding accrued and capitalized interest.
- (7) Net Revenues divided by Debt Service Senior Bonds.
- (8) Net Revenues divided by Debt Service All Indebtedness.

3.5 Current Rates and Charges

On November 1, 2016, the Authority implemented the tipping fees and charges as shown in Table 3-6. Not all Member Communities pay the same tipping fee. The tipping fee for the City of Suffolk is \$0 per ton because it hosts the Regional Landfill as described in the Section titled "Agreement with Suffolk," below. Since January 1, 2016, the tipping fee paid by the seven Member Communities, not including Suffolk, is based upon the annual revenue requirement for the Authority.

The Authority currently intends to keep its tipping fee for municipal solid waste at \$125 through the expiration of the Use and Support Agreements in 2018, barring unforeseen changes.

Table 3-6. Existing Rates and Charges

	Rates for Services Effective November 1, 2016
Solid Waste Acceptable at All Disposal Points	
Municipal Solid Waste (delivered by any SPSA Member Communities)	\$125.00/ton
Contract Municipal Waste (delivered on behalf of a SPSA Member Communities)	\$125.00/ton
U.S. Navy Waste	Per contract
Other SPSA Acceptable Waste under Contract with SPSA	
Delivered directly to SPSA Tipping Floor at RDF Plant	\$25/ton
Delivered directly to SPSA Transfer Station	\$50/ton
Weighing Charge per Vehicle	\$20.00/incident
Residential Solid Waste Delivered in Private Automobile or Low-Side Pickup Truck	No charge
Suffolk Municipal (Waste Delivered by City of Suffolk)	No charge
Suffolk Contract Municipal Waste (Waste Delivered Under Contract with City of Suffolk)	No charge
Waste Disposal – Regional Landfill Only	
Non-processible Solid Waste (Non-contract)	\$65.56/ton
Industrial Process Wastes (acceptable only with prior approval)	\$67.63/ton
Dead Animals (household pets only, i.e., dogs and cats)	\$20.00 each
Water Treatment Plant Sludge from any Member Community Transported by SPSA	\$46.00/ton
Construction and Demolition Waste	\$47.00/ton
Boats (Minimum Fee \$80 Each)	\$0.04 per pound
Special Handling Waste	Handling cost plus 25%
Tires – Whole Tires Accepted at Regional Landfill Only	
Automobile and Light Truck	\$82.50/ton
Truck and Light Industrial up to 24.5"	\$145.00/ton
Heavy Equipment and Off-the-Road Tires	\$160.00/ton
Tires with Rims	Additional \$3.00/tire
Household Hazardous Waste	
Household Hazardous Waste User Fee (Rates Per Customer Visit, Charged to Customer's Member Community)	\$35.00/visit
Waste Accepted at SPSA's Regional Landfill from Businesses	
Batteries (lead and rechargeable)	\$60.00/ton
Alkaline Batteries	\$0.75/pound
Miscellaneous	
Appliances with CFC Disposed at SPSA's Regional Landfill:	
Member Communities or Residents (Billed to Customer's Local Government)	\$12.00/each
Businesses	\$12.00/each
White Goods Containers Based upon Distance from the Regional Landfill)	\$75.00 - \$125 per pull
Gray Soils Used as Alternative Daily Cover (ADC)	
ADC10	\$10.00/ton
ADC15	\$15.00/ton
ADC20	\$20.00/ton
ADC25	\$25.00/ton

Source: The Authority's website, found March 2017.

3.6 Quantity of Solid Waste Disposed

The tons of waste disposed and the disposal revenue received during the first six months of the current fiscal year are presented in Table 3-7.

Table 3-7. Revenues from Disposal Fees for Period Ended December 31, 2016

	Tons	Revenue from Disposal Charges
July	46,383	\$4,019,378
August	46,149	\$4,124,222
September	44,503	\$4,182,751
October	40,252	\$3,858,669
November	48,557	\$3,776,842
December	<u>46,169</u>	<u>\$3,619,547</u>
TOTAL	272,013	\$23,581,409

Source: Provided by the Authority.

A summary of tonnages and revenues from disposal fees for the last five fiscal years is presented in Table 3-8.

Table 3-8. Summary of Annual Revenues from Disposal Fees

Fiscal Year Ended June 30	Total Tons (000) ⁽¹⁾	Revenues From Disposal Charges (\$000) ^{(2), (3), (4)}
2012	977	55,129
2013	951	47,008
2014	933	44,512
2015	1,016	45,104
2016	1,012	46,638

Source: The Authority.

- (1) Tons includes commercial and municipal tons.
- (2) Does not include tipping fees for tires or proprietary waste.
- (3) Revenues reflect only receipts of municipal tons and landfill receipts of soil and construction and demolition debris.
- (4) Reported on a cash basis

3.7 Long-Term Debt

Presented in Table 3-9 is a summary of the existing long-term debt of the Authority as of June 30, 2016.

Table 3-9. Summary of Outstanding Debt of the Authority

Series – As of June 30, 2016	Date of Obligation	Amount Issued	Amount Outstanding on June 30, 2016
Guaranteed Subordinated Refunding Bonds, Taxable Series 2009A	June 17, 2009	\$71,985,000	<u>\$20,670,000</u>
Total Bonds Payable			\$20,670,000

Source: Independent Auditors' Report, Dixon Hughes Goodman, LLP, October 12, 2016.

3.8 Establishment of Fund and Accounts

Section 504 of the Resolution establishes certain funds and accounts, which the Authority is to maintain. The reported status of those funds as of December 31, 2016 is shown in Table 3-10.

Table 3-10. Status of Bonds Funds and Accounts as of December 31, 2016

Bond Accounts	December 31, 2016 ⁽¹⁾
2009 Series Tax Exempt (VRA)	<u>\$2,606,291</u>
Total Bond Account Balance	\$2,606,291

Source: The Authority.

(1) Market value as of December 31, 2016.

3.9 Debt Service Payments

The projected annual debt service payments on the Authority's long-term debt are shown in Table 3-11.

Table 3-11. Debt Service Requirements for All Authority Indebtedness

Fiscal Year Ending June 30	Total Debt Service ⁽¹⁾
2017	11,522,850
2018	<u>10,142,052</u>
Total	\$21,664,902

Source: Independent Auditors' Report, Dixon Hughes Goodman, LLP, October 12, 2016.

(1) As of June 30, 2016.

Contracts

4.1 Introduction

The Authority is party to a number of long-term contracts related to waste disposal and the delivery of solid waste to the Disposal System. Presented below is a brief discussion of certain major issues addressed in the various major contracts.

4.2 Service Agreement with Wheelabrator Technologies Inc.

The Authority sold the WTE Facilities to Wheelabrator on April 29, 2010. The Authority executed a Service Agreement for solid waste disposal services with Wheelabrator that took effect upon the closing of the sale of the WTE Facilities. The initial term of the Service Agreement is through January 24, 2018.

The key terms of the Service Agreement include:

- Wheelabrator will accept and process the Authority's solid waste at the WTE Facilities until January 24, 2018.
- On November 28, 2012, The Authority and Wheelabrator executed Addendum Number 5 to the Service Agreement, which modified the Authority's Annual Waste Delivery Guarantee ("Annual Delivery Guarantee") and the annual fee that the Authority is required to pay to Wheelabrator for Wheelabrator's disposal of the Authority's solid waste ("Annual Fee"). The Annual Delivery Guarantee is shown in Table 4-1 and the Annual Fee is shown in Table 4-2. The annual fee is payable in 12 equal monthly installments.

Table 4-1. Annual Delivery Guarantee

Billing Year	Tons of SPSA Acceptable Waste
July 1, 2013 through June 30, 2014	497,500
July 1, 2014 through June 30, 2015	497,500
July 1, 2015 through June 30, 2016	496,250
July 1, 2016 through June 30, 2017	490,000
Any Billing Year beginning or after July 1, 2017	500,000 ⁽¹⁾

Source: Addendum No. 5 to Service Agreement.

(1) Pro rata for a billing year less than 12 full months.

Table 4-2. Annual Fee

Billing Year	Annual Fee
July 1, 2013 through June 30, 2014	\$21,890,000
July 1, 2014 through June 30, 2015	\$22,885,000
July 1, 2015 through June 30, 2016	\$23,820,000
July 1, 2016 through June 30, 2017	\$24,500,000
July 1, 2017 through June 30, 2018	\$26,000,000 ⁽¹⁾

Source: Addendum No. 5 to Service Agreement.

(1) Pro rata for a billing year less than 12 full months.

- The Service Agreement is structured as a “put or pay” contract – meaning that the Authority is required to pay the fixed monthly fee regardless of how much waste the Authority actually delivers to the RDF Plant (i.e., regardless of whether the Authority satisfies the Annual Delivery Guarantee). Regardless of volume, the Authority is required to deliver to Wheelabrator all acceptable solid waste under the control of the Authority’s Member Communities.
- The Authority is required to pay an additional fee for each ton of the Authority’s waste delivered to the RDF Plant in excess of the Annual Delivery Guarantee. The Authority has the right to divert any such “excess” waste to a disposal facility of the Authority’s choice, in which case, the Authority will not pay an excess tonnage fee to Wheelabrator for such waste.
- The Authority will continue to accept third-party hauler waste (i.e., contracted waste arrangements) and non-contract waste at the Authority’s transfer stations. Wheelabrator will provide the Authority a credit on its disposal fees in lieu of paying the Authority a hauling fee for delivery of this waste to the RDF Plant.
- Wheelabrator will receive or be credited for the tipping fees associated with such third-party waste and non-contract waste received at SPSA’s transfer stations (other than tipping fees for waste received at the Suffolk Landfill).
- During the term of the Service Agreement, the Authority will make its Regional Landfill and any other Authority-contracted landfill (including the Virginia Beach Landfill) available to Wheelabrator to dispose of residue (which includes ash) from the WTE Facilities. The Authority may direct the residue to a landfill of its choosing.
- The Authority has no obligation to undertake any expansion of its landfills or to maintain any landfill or any landfill capacity for disposal of ash, residue, or any other waste.

In December 2014, Energy Capital Partners acquired Wheelabrator from Waste Management, Inc. This acquisition resulted in a change of ownership of Wheelabrator, and Wheelabrator continues to be obligated to meet all of the terms and conditions of the Service Agreement with the Authority.

4.3 Member Community Solid Waste Disposal Agreements

All eight of the Member Communities have entered into Agreements for Use and Support of a Solid Waste Disposal System (the “Solid Waste Disposal Agreements”) with the Authority. More specifically, each Member Community has agreed to deliver or cause to be delivered substantially all (at least 95 percent per year) of the disposable solid waste which is generated or collected by or within or under the control of the Member Community. (In the Solid Waste Disposal Agreements, disposable solid waste is generally described as any solid waste other than hazardous waste, including especially material having energy value but currently discarded without recovery of such energy value). Each of the Member Communities will be assessed a per ton tipping fee (with the exception of Suffolk), as established under fee schedules imposed by the Authority in accordance with the Virginia Water and Sewer Authorities Act, for the disposal of disposable solid waste delivered to any of the Authority’s specified delivery points.

For seven of the jurisdictions, the Solid Waste Disposal Agreements became effective on January 22, 1985, the date on which the Regional Landfill began accepting solid waste. In the case of Virginia Beach, the Solid Waste Disposal Agreement became effective on the date fixed under the Navy Contract as the start-up date of the RDF Plant. The Solid Waste Disposal Agreements are scheduled to remain in effect until January 2018.

As Discussed in Section 1.4, as of the date of this Report, each of the eight Member Communities have executed New Support and Use Agreements with SPSA to be effective in January 2018 and beyond.

4.4 Agreement with Suffolk

The Regional Landfill is located in the City of Suffolk. Pursuant to the original Solid Waste Disposal Agreement between Suffolk and the Authority as amended (the “Suffolk Agreement”), no tipping fee is being charged to Suffolk for the following types of uses: (1) disposal at the Regional Landfill of solid waste collected and delivered in City of Suffolk vehicles; and (2) disposal at the Regional Landfill of solid waste collected within the City of Suffolk by municipal contractors operating under contract with the City of Suffolk. The Suffolk Agreement also addresses the terms and conditions for the use of the property in the City of Suffolk as the Regional Landfill.

On June 26, 2002, the Authority and the City of Suffolk signed an amendment to the original Suffolk Agreement (the “Amended and Restated Agreement”) which includes, but is not limited to, the following provisions:

- The agreement shall terminate in January 2018.
- The Authority will modify its access to U.S. Route 58 pursuant to specific requirements in the agreement. This route is used by vehicles carrying solid waste to the Regional Landfill.
- The maximum permitted height of the Regional Landfill will be 220 feet above mean sea level.
- The City of Suffolk agrees to deliver or cause to be delivered substantially all of the solid waste generated in the City.
- The City of Suffolk shall not be required to pay a disposal fee for its disposal of solid waste collected within the City that is delivered to the Regional Landfill or to any transfer station operated by the Authority at the Landfill site: (a) by the City of Suffolk in City owned vehicles or (b) by municipal contractors operating under contract with the City of Suffolk.
- Upon completion of construction of the Suffolk Transfer Station, general users may be required to pay the same tipping fees charged to other users of the Disposal System.
- The Authority shall maintain an Environmental Protection Trust Fund, which was initially funded with \$50,000, with additional annual contributions of \$5,000. The trust fund shall remain in existence for a period of 30 years after the cessation of operations at the Regional Landfill.

On December 22, 2005, the Authority and the City of Suffolk executed a first amendment to the Amended and Restated Agreement (the “First Amendment”). The First Amendment addresses the disposal of “Disaster Waste” which followed Hurricane Isabel in 2003 and provides that the City of Suffolk agrees not to dispose of Disaster Waste (as such term is defined in the Suffolk Amendment) at the Regional Landfill or at any transfer station operated by the Authority so long as other Member Communities do not dispose of Disaster Waste at these facilities.

On September 5, 2007, the City of Suffolk signed a second amendment to the Amended and Restated Agreement (the “Second Amendment”) that includes, but is not limited to the following:

- An acknowledgment that various improvements required to be constructed under the Amended and Restated Agreement have been completed.
- Provisions requiring the construction of two transfer stations in the City of Suffolk as a condition for disposing of waste in Cell VII.
- A deletion of all of the provisions in the Amended and Restated Agreement regarding the Authority’s obligation to Suffolk regarding site closing and conveyance of closed landfill property to Suffolk.

The Second Amendment further provides that if the SPSA Board of Directors elects by Resolution not to construct Cell VII, the Second Amendment shall be null and void.

On June 23, 2010, the Authority adopted a resolution stating that it will not construct Cell VII at the Regional Landfill, at this time. The resolution further indicates that this election was made without prejudice to or waiver of any future right to construct and operate Cell VII or any other solid waste disposal facilities on the property should circumstances change, and SPSA reserves the right to do so. With the adoption of this resolution, the Authority is no longer pursuing the construction of two transfer stations in the City of Suffolk.

As Discussed in Section 1.4, as of the date of this Report, Suffolk and SPSA have executed a Good Neighbor Agreement for continued operation of the Regional Landfill beyond January 2018.

4.5 The Ash Disposal Agreement

The Authority entered into an agreement (the “Ash Disposal Agreement”) with Virginia Beach, dated August 5, 1984, for the disposal at Mt. Trashmore II or a successor landfill (the “Virginia Beach Landfill”) of: (1) ash from the Power Plant, and (2) residue from the operation of the trommels and other equipment of the RDF Plant. On December 31, 2015, the Ash Disposal Agreement terminated, and as of January 1, 2016, the terms of the agreement no longer are in effect.

4.6 The Navy Contract

In July 24, 1984, the Authority negotiated a contract with the Navy establishing a relationship related to the use of waste as fuel at the Power Plant. The agreement was amended over time to address the sale by the Navy of the Power Plant to SPSA and the Navy’s use of electrical power and steam generated at the Power Plant. With the sale of SPSA’s WTE Facilities to Wheelabrator, the Navy Contract was assigned to Wheelabrator.

4.7 Navy Contract for Waste Disposal Services

The Authority executed an agreement dated June 24, 2006 with the Navy for waste disposal services. The agreement had an initial term of one year and the Navy had the option to extend the contract for an additional four years. The Navy exercised the extensions and has renewed the agreement for a series of one-year terms. Most recently, the Navy waste disposal contract was renewed in 2014 with multiple renewal options through the termination of the Support and Use Agreements on January 24, 2018. The Navy tipping fee is \$43.32 per ton for the disposal of processible waste and \$67.53 for non-processible waste delivered to the Regional Landfill. The contract includes a 3 percent annual escalator.

Summary of Capital Projects

5.1 Introduction

In the past, the Authority undertook a number of major capital projects to develop the Disposal System. In recent years, capital projects have centered primarily on the capital maintenance of existing facilities and equipment renewal and replacement. It appears that the Authority has been diligently working to make capital repairs to its facilities.

5.2 Capital Budget Funding Strategy

In FY 2010, the Authority staff implemented a cash-based capital budget funding strategy, using only operating revenues to fund all capital improvements. In prior years, most of the capital improvements to the Disposal System were funded through the issuance of long-term, tax-exempt, and taxable revenue bonds.

The Authority reports that future capital expenditures shall be funded from operating revenues exclusively. The Authority's general approach to capital improvement is to maintain and renovate the transfer stations in an effort to maintain operating effectiveness. Currently, SPSA's capital plan reflects its intent to maintain operations beyond the scheduled expiration of its Solid Waste Disposal Agreements and the term of its outstanding bonds, both scheduled to occur in 2018. SPSA plans to review and update this plan annually.

5.3 Capital Improvements and Equipment Replacement

The FY 2017 budget contains \$1,534,292 in capital improvements and equipment replacement for the Disposal System. The Budget for FY 2017 included a multi-year capital improvement and equipment replacement plan. The projection of capital expenditures through 2020 is consistent with the Authority's budget message indicating its planning efforts assume that SPSA will continue as a going concern beyond the termination of the Use and Support Agreements in 2018.

Table 5-1. Capital Improvement Plan FY 2016 to FY 2019

Description	FY 2017	FY 2018	FY 2019	FY 2020
<u>Regional Landfill</u>				
Pump house - Rebuild	\$8,500			
Pick Up Truck, 1/2 T	26,500		\$36,000	
Dozer	400,000			
Slope Mower	140,000			
Hydroseeder	66,636			
Pickup Truck (Qty 2)		\$55,000		
Excavator		310,000		
Backhoe				85,500
Sweeper				55,000
Dump Truck				\$443,000
<u>Safety</u>				
Pickup Truck			28,000	
<u>Fleet Maintenance</u>				
Truck Lift	30,000			
Pick Up Truck			27,500	29,000
Service Truck				138,000
Sweeper				38,000
<u>Transportation</u>				
Road Tractors (Refurbish)	300,000	1,500,000	1,545,000	1,591,350
MSW Trailers (Refurbish)	255,000	270,000	1,444,000	1,476,000
Pickup Truck				30,000
<u>Boykins Convenience Center</u>				
Compactor Box (Qty 2)		23,000		
Compactor		42,750		
<u>Chesapeake Transfer Station</u>				
AST & Dispenser				
Wheeled Loader		357,000		
Excavator			320,00	
Sweeper				38,000
<u>Household Hazardous Waste</u>				
Pick Up Truck 1/2T	30,000			
Pick Up Truck 4x4		26,500		
Loader				141,315
<u>Isle of Wight Transfer Station</u>				
Pick Up Truck, 1/2T	26,000			
<u>Ivor Convenience Center</u>				
Compactor Box (Qty 2)				24,200
Compactor				45,300
<u>Landstown Transfer Station</u>				
Wheeled Excavator				351,000
Tip Floor Repairs				

Table 5-1. Capital Improvement Plan FY 2016 to FY 2019

Description	FY 2017	FY 2018	FY 2019	FY 2020
Wheeled Loader			499,000	
<u>Norfolk Transfer Station</u>				
Wheeled Loader			494,000	
Replace Tip Floor Roll Up Doors	40,000			
Wheel Excavator		331,000		351,000
<u>Oceana Transfer Station</u>				
Wheeled Loader		357,000		
Sweeper				36,300
<u>Suffolk Transfer Station</u>				
Wheeled Excavator			320,000	
<u>Tire Shredder Operations</u>				
Tire Cutter	45,000			
Loader			283,000	
<u>Undesignated Project Funds</u>	166,656			
GRAND TOTAL	\$1,534,292	\$3,272,250	\$5,023,500	\$4,872,965

Source: The Authority's Proposed FY 2017 Budget, Dated March 23, 2016, as found on SPSA's web site, March 2017.

- (1) This plan represents the minimal amount of money necessary to maintain equipment and operations. For example, the yard dogs, tractors and trailers are all being refurbished in house versus purchasing new equipment.
- (2) FY 2017 and 2018 represent replacements necessary for a Post 2018 SPSA.
- (3) Amounts budgeted are net of expected trade in value.

Maintenance and Operation of the Facilities

6.1 Introduction

As part of the preparation of this Report, a representative of CH2M conducted a site visit of the Disposal System in March 2017 and met with representatives of the Authority, for purposes of reviewing the operation and condition of the Disposal System. The principal observations and findings are discussed below.

6.2 Transfer Stations

At the time of CH2M's site visit, all nine of the transfer stations were in operation. Overall, the amount of solid waste delivered to the transfer stations in FY 2016 was 680,165 tons, a decrease of approximately 6.3 percent from the 725,981 tons delivered in FY 2015. In most cases, the transfer stations are being operated within design capacities, except for unusually heavy days or during peak periods.

Under the terms of the Service Agreement, Wheelabrator is responsible for providing transportation and disposal of non-processible waste, and the Authority's Transportation Division is responsible for providing transportation of processible waste from the transfer stations to the WTE Facilities. At most of the transfer stations, processible waste and non-processible waste are separated on the tipping floor. Non-processible waste is loaded by Authority personnel into trailers that are provided by Wheelabrator and hauled by its subcontractor. In most cases, processible waste is loaded into Authority trailers and hauled by Authority road-tractors to the WTE Facilities for disposal. Based on CH2M's visual observations, review of operating records and discussions with Authority staff, CH2M is of the opinion that the Authority's transfer stations are being properly operated.

Maintenance projects appear to be on going, and a number of projects appeared to have been completed at several locations. The dedication of the supervisory and operating staff appears to remain high, consistent with prior years. Facility supervisors reported that staff continues to work hard and do quality work. In FY 2014, Authority staff implemented a program to track the daily performance of individual operations staff (e.g., hours engaged in driving versus other activities, number of loads hauled per day), in an effort to better understand and control operations, and the Authority continues to monitor these performance measures. Authority staff regularly reports these performance statistics to the Board of Directors.

At the time of CH2M's site visit, all of the transfer stations appeared to be operating satisfactorily, and all appeared to be in satisfactory working condition. The Authority continues to use operating budgets for minor repairs, as needed and uses in-house labor to complete certain types of work (e.g., minor building repair).

6.2.1 Boykins Convenience Center

The Boykins Convenience Center consists of an elevated area where customers can deposit waste into a stationary compactor or two open-top roll-off containers. It is staffed by Southampton County personnel and operated three days per week on Tuesday, Thursday, and Saturday. Authority operating staff from the Franklin Transfer Station services this facility.

In FY 2016, the daily average tonnage is reported to have been approximately 4 TPD. Overall, a 7.4 percent increase in total tonnage received was experienced at the facility. Waste from this facility is

transferred to the Franklin Transfer Station by the Authority staff where it is placed in transfer trailers and hauled for disposal.

Since the Consulting Engineer's prior site visit in 2016, no significant repairs or changes were made to the facility. Some areas of deteriorating asphalt were observed during the site visit. CH2M recommends that SPSA continue to monitor the asphalt and make repairs as necessary. Some flaking paint and corrosion was observed on the stationary compactor that should be evaluated and repaired/repainted as necessary. Based on observations during CH2M's site visit, the facility appears to be in satisfactory condition.

6.2.2 Chesapeake Transfer Station

The Chesapeake Transfer Station consists of a three-sided steel building with a tipping floor that encloses a single hopper that allows open-top loading of transfer trailers. The Chesapeake Transfer Station is reported to have averaged approximately 474 TPD in FY 2016, a decrease of 3.8 percent from the previous year. The facility is open Monday through Friday and for a half-day on Saturday. SPSA owns the improvements on land leased from the City of Chesapeake.

It appeared that hopper repairs had been performed at the facility since the last site visit. At the time of the site visit, the transfer station was operating and accepting waste deliveries. The interior of the tipping floor building appears to have significant accumulated dust and grime and interior insulation on the ceiling is in a state of disrepair. The transfer station building shows some corrosion and wear typical for a transfer building of this age. Cleaning of the building's interior and cleaning and painting of corroded metal should be conducted as part of the Authority's on-going repair and maintenance program. Minor damage to the fascia at the west side (tunnel entrance side) of the transfer building should be repaired (it appears the fascia has come loose). The chain link fencing across from the entrance to the tipping floor appears to have been struck by a vehicle and was leaning over at the time of the site visit. This fencing should be evaluated and repaired. Additionally, small potholes near the entry and exit to the tunnel should be monitored and repaired as necessary. Overall, the facility appears to be in satisfactory condition.

6.2.3 Franklin Transfer Station

The Franklin Transfer Station consists of an open tipping floor area screened with a fabric chain link fence; it does not include a building enclosure. Waste is typically dumped into the single hopper directly into open-top transfer trailers. The facility is open Monday through Friday and for a half-day on Saturdays. The Franklin Transfer Station is reported to have averaged approximately 73 TPD in FY 2016 and waste deliveries decreased 4.3 percent from the previous year. Loaded trailers from the Franklin Transfer Station are hauled to a Non-SPSA Landfill by Wheelabrator's subcontractor; SPSA drivers typically do not service this facility. Three personnel are assigned to this facility.

At the time of the site visit, repair work to the floor drains in front of the hopper was being performed by a contractor. The concrete retaining wall around the hopper appeared to be in satisfactory repair. The paint on the hopper and containment fencing showed some signs of corrosion. The corrosion should be monitored and the hopper and fencing repainted as part of the on-going facility maintenance program. The asphalt and concrete were in generally satisfactory condition, although certain cracks were observed in the asphalt pavement. Authority staff should continue to monitor such cracks and repair with a suitable filler or sealant as part of the on-going maintenance program.

Overall, the facility appears to be in satisfactory condition.

6.2.4 Isle of Wight Transfer Station

The Isle of Wight Transfer Station is a push-wall transfer station with a three-sided metal building superstructure. At the Isle of Wight Transfer Station, trailers travel on a loading lane situated at a lower

grade than the tipping floor, so that the sides of the trailers are approximately 4 feet above the tipping floor. A front-end loader is used to lift waste into the transfer vehicles. All of SPSA's other transfer stations are top-load facilities where waste is pushed over the floor, into a hopper, and falls into open-top trailers. In FY 2016, the transfer station is reported to have averaged deliveries of 82 TPD; this is an increase of 7.7 percent from the previous fiscal year. The facility is open Monday through Friday and for a half-day on Saturdays. Loaded trailers at the Isle of Wight Transfer Station are hauled to a Non-SPSA Landfill by Wheelabrator's subcontractor; SPSA drivers typically do not service this facility.

During the site visit, minor corrosion was observed on the girts (wall members) and purlins (ceiling members) and some flaking paint was observed, deterioration was observed in small patches on the asphalt pavement. Corrosion was observed at the bottom of wall panels on the back of the building. The Authority should monitor these conditions and effect repairs as necessary as part of its on-going maintenance program.

The facility appears to be in satisfactory condition.

6.2.5 Ivor Convenience Center

The Ivor Convenience Center is located on U.S. Route 460, 1 mile east of the Town of Ivor and is used primarily for self-haul disposal. Southampton County collection vehicles are also permitted to use the facility. The facility consists of an elevated area where customers can deposit waste into a stationary compactor or two open-top roll-off containers. The average daily tonnage in FY 2016 was reported to be approximately 4 TPD; approximately 2.8 percent more tonnage was managed at this facility compared to the prior fiscal year. Southampton County provides a site attendant during operating hours. The Ivor Transfer Station is open three days per week - Wednesday, Friday, and Sunday. The Authority's operating staff from the Isle of Wight Station inspects this station and provide facility support. Waste containers from this station are transferred by an Authority roll-off truck to the Isle of Wight facility where the waste is reloaded into transfer trailers and hauled for disposal.

The Authority staff reports that no significant changes were made to the facility since the last site visit. During the site visit, minor peeling paint was noted on the compactor hopper. The Authority should monitor and repaint the hopper as appropriate. Cracks were observed in the asphalt typical for its apparent age and use. The Authority should monitor asphalt cracks and make repairs as appropriate.

The facility appeared in satisfactory condition at the time of the inspection.

6.2.6 Landstown Transfer Station

The Landstown Transfer Station is a 1,500 TPD facility that contains three hoppers for loading. It is an enclosed, top-load facility with compaction accomplished by use of a mobile excavator. The station is reported to have averaged 570 TPD in FY 2016, a 7.9 percent decrease from the previous fiscal year. The facility is open Monday through Friday and for a half-day on Saturday to receive waste. This station also operates 24 hours per day to facilitate waste transfer to the RDF Plant during nighttime hours.

Curbing in the tunnel had been repaired since CH2M's last site visit. Some cracking was observed in the asphalt pavement. Cracks and other damage to the asphalt is normal at a waste-handling operation, but the asphalt should be monitored and repaired as necessary. Corrosion was observed on the underside of the soffits on both the entrance and exit sides of the building. It is possible that the storm gutter system on the building is not functioning correctly. The cause of this corrosion should be investigated and repaired, and the affected parts of the metal building repaired and repainted. A damaged bollard was observed at the tunnel exit door. CH2M recommends that this bollard be evaluated and repaired. In the main tipping building, some of the metal members are showing bare metal. CH2M recommends that this metal be evaluated and repaired/repainted. Some corrosion was noted at the tunnel exit doors. CH2M recommends that the Authority evaluate this rust and take steps to remove rust and repair/repaint the steel. Exposed rebar was observed on the push wall at the hopper, which should be evaluated and

repaired as part of the on-going facility maintenance program. When exiting from the office area into the tunnel, no safety signs were observed. CH2M recommends that all doorways be evaluated and where appropriate safety signs (e.g., overhead hazard - hardhat required) be installed. Overall, the facility appears in sound working order and in satisfactory repair.

6.2.7 Norfolk Transfer Station

The Norfolk Transfer Station, with a design capacity of 1,300 TPD, is capable of loading three trailers at one time. The facility is similar in design and operation to the Landstown Transfer Station. The facility is reported to have averaged 685 TPD in FY 2016 a decrease of 8.4 percent in tonnage received compared to the previous fiscal year.

This station continues to operate 24 hours per day in order to facilitate the transfer of waste during nighttime hours to the RDF Plant. The facility is open for general waste receipts from 5:00 am to 5:00 pm Monday through Friday and 7:00 am to Noon on Saturday. The Authority continues to operate the station on Saturday and Sunday afternoons serving only City of Norfolk self-haul customers. The City of Norfolk pays the cost to operate the facility during these hours, which reduces traffic on weekdays when commercial customers utilize the station. By allowing residents to deliver waste on the weekend, self-haul customers that significantly restrict tipping floor operations due to the time it takes them to unload waste onto the tipping floor are diverted from the facility on busy weekdays. Eleven personnel are assigned to the transfer station operation.

At the time of the site visit, work was being performed on roll-up doors on the tipping floor. Corrosion observed on some of the structural steel in the tunnel had been repaired and painted since the last site visit. Additionally, a new fuel pump had been installed since the previous site visit. Damage was observed to the concrete hopper wall. CH2M recommends that SPSA continue to monitor this area and make repairs to the concrete, if necessary. A few holes were observed in the metal wall panels on the exit side of the building. These holes should be monitored over time and the panels replaced as necessary. Damaged wall members and louvers were observed on the back wall (on the opposite side of the tipping floor from the hoppers). These members and louvers should be monitored and repaired or replaced as part of the on-going maintenance program. Significant peeling paint was observed on the man-door near the tipping floor exit. The door should be scraped and re-painted. Several loose anchor bolts holding the steel diverters to the concrete walls were observed on both sides of the tipping floor. Local building codes should be consulted for such a repair, but it may be possible to obtain appropriate anchor-bolts and set them in the concrete using a suitable epoxy material.

Overall, the facility appears in satisfactory condition.

6.2.8 Oceana Transfer Station

The Oceana Transfer Station is reported to have averaged approximately 261 TPD in FY 2016, a decrease of 11.0 percent from the previous year. This station has one hopper for transfer trailer loading. The facility is open Monday through Friday and for a half-day on Saturday. Five staff are assigned to the transfer station operation.

The Authority and the Virginia Department of Transportation (VDOT) have an arrangement, which allows the Authority the use of a vacated VDOT park and ride lot adjacent to the transfer station property as a drop and hook lot. The advantage of the drop and hook operation is that trailers can be loaded and staged during the day, and hauled to the disposal during hours when there is less traffic on area highways. As part of the agreement with VDOT to use the lot, the Authority is required to maintain its condition.

New asphalt had been placed in the VDOT parking area since CH2M's last site visit. Because of its location, the facility appears to attract many more birds than any of the other transfer stations. Many of these birds appear to sit on the structural members within the transfer station. The Authority should

regularly evaluate these structural members and wash off bird droppings to reduce the corrosion they cause. Some peeling paint and corrosion was observed on structural members within the transfer building. CH2M recommends that SPSA evaluate these members, and clean and repaint them as necessary. Cracks were observed in the asphalt and concrete pavement. CH2M recommends that the Authority continue to monitor these cracks and fill/repair the cracks as part of on-going maintenance.

The facility appeared to be in satisfactory condition.

6.2.9 Suffolk Transfer Station

The Suffolk Transfer Station, located near the entrance to the Regional Landfill, allows the Authority to divert waste from the Regional Landfill to the RDF Plant, thereby extending the life of the Regional Landfill. The facility is similar in size to the Landstown Transfer Station. It is constructed with two open-top hoppers, and it is designed for 53-foot long trailers. The facility is open Monday through Friday and for a half-day on Saturdays. The station is reported to have averaged 228 TPD in FY 2016, approximately the same amount of waste as was managed during the previous year. Five employees are assigned to the transfer station. The tipping floor has steel rails embedded in the concrete. The concrete has eroded in some areas caused by refuse being pushed into the hopper. This wear appears normal and does not appear to have increased significantly since last year's site visit, but SPSA should continue to monitor this concrete and effect repairs when appropriate.

The facility is maintained in satisfactory condition.

6.2.10 Transportation Operations

The Transportation Division is responsible for conducting hauling operations transferring processible waste from the transfer stations to the WTE Facilities. Overall coordination of the transfer stations and transportation operations is the responsibility of the transportation superintendent. The Transportation Division is staffed by a transportation manager, a transportation superintendent, 36 full-time drivers, and 4 part-time drivers. In addition to transporting MSW, the Transportation Division operates roll-off trucks, a tanker, a lowboy trailer, and hauls sludge from the City of Norfolk's wastewater treatment plant to the Regional Landfill. Transportation operations are conducted in two shifts – a daytime shift from 9:00 am to 5:00 pm, and a night shift from 8:00 pm to 4:00 am.

Information on historical waste deliveries to the transfer stations during the last five years is presented in Table 6-1.

Table 6-1. Waste Quantities Received at Transfer Stations*(Fiscal Year Ended June 30)*

Transfer Station	Design Capacity (TPD)	2012		2013		2014		2015		2016	
		Total Annual (Tons)	Daily Average ⁽¹⁾ (TPD)	Total Annual (Tons)	Daily Average ⁽¹⁾ (TPD)	Total Annual (Tons)	Daily Average ⁽¹⁾ (TPD)	Total Annual (Tons)	Daily Average ⁽¹⁾ (TPD)	Total Annual (Tons)	Daily Average ⁽¹⁾ (TPD)
Boykins	50	644	4	652	4	643	4	618	4	664	4
Chesapeake	500	145,405	508	136,885	479	142,736	499	141,030	493	135,637	474
Franklin	150	21,722	76	19,290	67	20,284	71	21,962	77	21,016	73
Isle of Wight	150	23,240	81	22,028	77	22,840	80	21,699	76	23,368	82
Ivor	30	653	4	652	4	616	4	624	4	642	4
Landstown	1,500	186,613	652	176,565	617	169,469	593	176,966	619	163,026	570
Norfolk	1,300	223,509	782	219,281	767	215,456	753	214,046	748	195,975	685
Oceana	500	101,781	356	93,829	328	88,681	310	83,961	294	74,736	261
Suffolk	<u>1,300</u>	<u>68,848</u>	<u>241</u>	<u>62,350</u>	<u>218</u>	<u>61,988</u>	<u>217</u>	<u>65,074</u>	<u>228</u>	<u>65,101</u>	<u>228</u>
Total	5,480	772,415	2,705	731,532	2,558	722,713	2,527	725,981	2,542	680,165	2,382

Source: The Authority

(1) Transfer stations are open 5.5 days per year, or approximately 286 days per year, except Boykins and Franklin, which are open three days per week, or approximately 156 days per week

6.2.11 Operating Records and Programs

The Authority continues to maintain the following operating records. They are readily retrievable and available for reference.

1. **Daily Reports** – Daily operating data such as waste type, vehicle identification, weight, and charges are entered into a computer at each transfer station. The computer transmits such information to the main computer at the operations office.
2. **Monthly Reports** – Monthly records are being kept which show actual and budgeted expenditures. Monthly tonnages and waste types are also summarized.
3. **Construction Budget** – The Authority maintains records showing capital expenditures for the individual transfer stations.
4. **Safety Administration** – The Authority maintains an active, internal safety program, which includes safety training and safety inspection.
5. **Industrial Permit Program** – The Authority continues to serve the industrial customer by use of a permit process, which enables the Authority to review a waste and determine its acceptability at the Regional Landfill. Hazardous waste is not accepted by the Authority.
6. **Environmental Management** – The Environmental Management Department coordinates with governmental agencies having jurisdiction over the Authority to ensure compliance with environmental regulations.
7. **Household Hazardous Waste** – The household hazardous waste program consists of a permanent collection facility at the Regional Landfill. Satellite locations are operated on a periodic basis at the Chesapeake, Isle of Wight, Norfolk, and Franklin transfer stations. The service is strictly for residential use. The Authority's solid waste inspectors operate the household hazardous waste program. Several transfer station operators are also trained to operate this program. The Authority has a contract with a private company to remove and properly treat the household hazardous waste.
8. **Operations Manuals** – The Authority has completed detailed operations manuals for each of the transfer stations, as well as for all of its permitted facilities. Each manual provides information about station functional arrangement and throughput capacity; emergency and contingency plans; routine inspection plan; and closure.
9. **Maintenance of the Transfer Stations and Transfer Vehicles** – The equipment maintenance schedule and record keeping system is computerized. The system produces schedules and records of maintenance work and maintains a parts inventory and purchase record. The Authority's vehicles appear to be well maintained.

6.3 The Regional Landfill

The Regional Landfill is located on an 833-acre parcel off the merged US Routes 58, 13 and 460 in Suffolk, Virginia. Facilities at the Regional Landfill include:

- Closed landfill Cells I through IV;
- Active landfill Cells V and VI;
- Scale facility (that also serves the Suffolk Transfer Station);
- Operations and vehicle maintenance building;
- Household hazardous waste collection center;
- Tire processing facility;
- Soils management facility (a tenant on the site);

- Leachate collection system and lined treatment/holding ponds;
- Gas-to-energy plant (a contracted operation on site);
- Landfill expansion area (Cell VII); and
- Other support facilities and appurtenances.

The Authority began disposing of solid waste in Cell I of the Regional Landfill in January 1985. Cells I through IV were closed in the summer of 2009. The Authority is currently operating Cells V and VI. Cell V began operation in May 2000 and Cell VI began accepting waste in May 2006. Presented in Table 6-2 is a summary of waste quantities reported to have been disposed of during the last five calendar years at the Regional Landfill. The figures in Table 6-2 include residue ash deposited in the Regional Landfill. The Authority indicates that during calendar year 2016, the Regional Landfill accepted a total of 261,438 tons of waste consisting of MSW, construction and demolition debris, ash, and other wastes, and the Regional Landfill accepted 45,631 tons of clean fill, for a total of 307,069 tons of material accepted at the Regional Landfill. In 2016, the ferrous processing facility operated by a tenant at the Regional Landfill ceased operation and removed the processing plant from the site.

During 2016, most non-processible waste was directed to Non-SPSA Landfills for disposal. The Regional Landfill is open to the public ten hours per day, four days per week with 11 full-time and one part-time personnel assigned to the facility. The landfill has limited staffing during other days of the week in order to be able to accept WTE ash deliveries. Currently, the largest waste streams being received by the Regional Landfill are WTE ash, soils, and construction and demolition debris. The Authority began directing WTE ash deliveries to the Regional Landfill in August 2011. Prior to this date, ash deliveries had been directed to the Virginia Beach Landfill.

Table 6-2. Summary of Waste Disposed at the Regional Landfill

	Total for Period (Tons)	Average Per Day ⁽¹⁾ (Tons)
January – December 2012	250,849	1,206
January – December 2013	257,331	1,237
January – December 2014	284,310	1,367
January – December 2015	295,061	1,419
January – December 2016	261,438	1,257

Source: The Authority.

(1) Assumes 4 days per week.

6.3.1 Closed Landfill Cells

The Authority completed closure construction of Cells I through IV in the summer of 2009. At the time of the site visit, the closed portion of the Regional Landfill was covered by a lush stand of turf grass, and it appeared that the side-slopes and perimeter ditches have received regular maintenance. Some minor side slope erosion was observed during the site visit, and Authority staff indicated that erosion was addressed as part of on-going maintenance activities.

6.3.2 Expansion of the Regional Landfill

On June 8, 2011, the Virginia Department of Environmental Quality issued amended Permit #417 for Cell VII expansion of the SPSA Regional Landfill in Suffolk. SPSA obtained the permit for Cell VII to assure that the Authority has disposal options into the future and to increase the value of the Regional Landfill as a going concern. The proposed Cell VII area is located east of Cell V. Cell VII will add approximately

56 acres of lined disposal area to the Regional Landfill and bring the total lined disposal footprint to 244 acres. The area for Cell VII has been cleared. Soil materials are being excavated from this area and used as daily cover for Cell VI operation.

Historical information concerning the expansion of the Regional Landfill is presented in Section 7 of this Report.

6.3.3 Landfill Operations

The Authority maintains similar type records at the Regional Landfill as it does for the transfer stations. Scales for weighing the waste are located at the Regional Landfill entrance and exit. Records include daily and monthly tonnages, types, and quantities of waste. The data compiled include the number of tires received, capital and operating budgets, leachate volumes and strength, safety records and inspection reports, risk assessment, and industrial permit records.

Leachate treatment facilities, consisting of two lagoons (one each for aeration and sedimentation) at the north end of the Regional Landfill, continue to be operated on a fill and draw basis. Discharge is to the Hampton Roads Sanitation District (“HRSD”). Other observations made at the Regional Landfill during the site visit include:

- The landfill gas collection system appeared to be operating on closed Cells I through IV and active Cells V and VI.
- At the time of the site visit, some erosion rills were observed on the side slopes of the active landfill (primarily Cell V). Vegetative cover had not been fully established on the east and north slopes of Cell V and VI, and some erosion was observed. CH2M recommends establishing vegetative cover on landfill side slopes.
- Disposal activities appear to be conducted with due care. Temporary and permanent litter fences were placed around active work areas, the work face appeared reasonably compact, and reasonable erosion control measures appeared to be in place. The facility appears well maintained.
- The bypass road around the scale house is severely deteriorated and the pavement should be evaluated and repaired.
- Staff reported that it was taking steps to address the Unusual Leachate Conditions (as discussed in Report Section 2.5), including the installation of leachate level measuring devices in the bottoms of Cells V and VI, and that it was pumping leachate to the HRSD at its daily permitted limits. CH2M observed that leachate level transducers had been installed (as pointed out by SPSA staff), but CH2M did not conduct any inspection of the leachate system or leachate pumping records.

6.3.4 Tires

The Authority accepts tires in bulk at the Regional Landfill and separates tires from the solid waste at all facilities. All tires are taken to the Regional Landfill where they are shredded or otherwise recycled. Shredded tires are used as alternate daily cover and for slope repairs at the Regional Landfill. Minor damage was observed at the top of one of the doorways to the tire processing facility. This damage should be evaluated and repaired as part of the ongoing facility maintenance program.

6.3.5 White Goods

The Authority has a program to accept white goods (typically appliances and other metal objects). In accordance with environmental regulations, technicians properly remove refrigerants from white goods containing such substances. The collected white goods are recycled as scrap metal.

6.4 Landfill Gas Recovery System

The landfill gas recovery system began full operation November 17, 1994. The system includes gas collection wells strategically located throughout Cells I through VI. In addition to the gas collection wells the system includes gas collection piping, a flare system, condensate drains, a 3.2 MW power plant using four internal combustion engines, and 2.3-mile pipeline to sell gas to BASF, a company located adjacent to the west side of the Regional Landfill. Landfill gas not supplied to BASF is used to generate electricity and some is flared as a last resort.

In January 2011, the Authority entered into a Landfill Gas Rights, Easement and Lease Agreement (“Landfill Gas Agreement”) with Suffolk Energy Partners, LLC (operating as “Gasco”) replacing several contracts that had initially been entered into in October 1991 and subsequently amended.

SPSA staff reported that Gasco was operating the landfill gas collection system in a satisfactory manner. Additional information concerning the landfill gas agreements is located in Section 7.

6.5 Estimated Useful Life of the Regional Landfill

The Guaranteed Subordinated Resolution does not include a requirement for the Consulting Engineer to review information regarding the estimated remaining useful life of the Regional Landfill, which had been included in prior annual Reports prepared by the Consulting Engineer as required by the Senior Bond Resolution, but to provide continuity in the Report the following information is provided. On an annual basis, the volume of material already placed in the Regional Landfill is measured by a topographic survey which has been performed by a series of engineers and surveyors (collectively, the “Surveyors”) hired by the Authority. In the Surveyors’ March 2017 airspace management report (the “2017 Airspace Report”)¹, the Surveyors presented information concerning when the currently constructed landfill cells could possibly reach capacity depending on the quantity of waste disposed annually and the density achieved in placing waste for disposal.

In the 2017 Airspace Report, assuming current conditions continue the Surveyors estimate that on January 24, 2018 the Regional Landfill will have more than four million yards of permitted airspace available for future waste disposal. Assuming waste can be placed at a density of approximately 1,400 to 1,600 pounds per cubic yard, the Regional Landfill will not reach capacity in its current configuration until July 2025 or September 2026, respectively. These dates are beyond the expiration dates of the Member Communities’ Solid Waste Disposal Agreements in 2018 and the final Bond maturity. The actual rate of landfill airspace consumption will depend on the rate of waste intake over time and the ability of the landfill operators to maintain the outside side slopes at the design elevations as the landfill settles.

6.6 Maintenance of Rolling Stock and Mobile Heavy Equipment

The maintenance of rolling stock is performed under the supervision of the Equipment Maintenance Superintendent. Authority personnel perform both preventive maintenance and repairs on all tractors, trailers, wheeled loaders, and landfill equipment as required. Trained Authority mechanics can and do handle all major engine, transmission, and rear-end work on the tractors and wheeled loaders. There is a fixed-price contract in-place to manage all tire work for the tractor-trailers and a flat rate contract for the wheeled loaders. Sixteen personnel are assigned to fleet maintenance.

¹ HDR Engineering Inc., Airspace Management Report, Southeastern Public Service Authority, Regional Landfill, Cells V and VI, Suffolk Virginia, March 2017.

For the past several years, the Authority has used in-house staff to perform overhauls of certain road tractors and yard tractors. Rebuilding the equipment extends the life of the asset at a fraction of the cost of acquiring new equipment.

The principal equipment in SPSA's fleet during FY 2016 is reported to have included 41 tractors, 70 MSW trailers, 2 roll-off trucks, 28 pieces of equipment at the Regional Landfill, and 37 pieces of equipment at the transfer stations. Tables 6-3 and 6-4 present summaries of reported equipment operating and maintenance costs.

Table 6-3. Equipment Operation and Maintenance Costs for Landfill and Transfer Stations, FY 2016

Facility	Equipment Count	Hours	Maintenance Cost	Tire Cost	Gallons of Fuel Used	Fuel Cost
Regional Landfill	28	7,947	\$341,395	\$16,853	42,352	\$63,561
Chesapeake Transfer Station	8	6,661	\$51,173	\$61,737	13,320	\$20,679
Franklin Transfer Station	5	1,991	\$12,071	\$7,567	2,617	\$4,312
Isle of Wight Transfer Station	5	1,173	\$12,112	\$9,727	2,646	\$4,224
Landstown Transfer Station	7	4,198	\$51,779	\$179,132	17,325	\$26,278
Norfolk Transfer Station	7	5,225	\$60,591	\$218,507	24,027	\$36,273
Oceana Transfer Station	7	2,532	\$32,385	\$61,698	7,254	\$11,383
Suffolk Transfer Station	4	2,999	\$25,496	\$42,514	6502	\$9,605

Source: The Authority.

Table 6-4. Equipment Operation and Maintenance Costs for Transportation, FY 2016

Transportation	Equipment Count	Hours	Maintenance Cost	Tire Cost	Gallons of Fuel	Fuel Cost
Tractors	41	734,062	\$190,616	\$76,073	188,186	\$285,670
Trailers-MSW	70	734,062	\$91,533	\$70,769	N/A	N/A
Roll-Off Trucks	2	29,056	\$1,933	\$787	5,189	\$7,442

Source: The Authority.

Tables 6-5 through 6-8 summarize the reported cost for operations and maintenance of rolling stock and heavy equipment for the last five fiscal years.

Table 6-5. Cost Summary, FY 2016

Rolling Stock/Equipment	Maintenance	Fuel	Tires	Miles or Hours
Tractors	\$0.260	\$0.389	\$0.104	734,062
MSW Trailers ⁽¹⁾	\$0.125	N/A	\$0.096	734,062
Landfill	\$42.959	\$7.998	\$2.121	7,947
Transfer Stations ⁽²⁾	\$9.912	\$4.550	\$23.443	24,779
Roll-Off Trucks	\$0.067	\$0.256	\$0.027	29,056

Source: The Authority.

(1) MSW and ash trailer mileage is estimated.

(2) Includes Norfolk, Chesapeake, Franklin, Isle of Wight, Oceana, Landstown, and Suffolk Transfer Stations.

Table 6-6. Cost Summary, FY 2015

Rolling Stock/Equipment	Maintenance	Fuel	Tires	Miles or Hours
Tractors	\$0.218	\$0.615	\$0.097	839,166
MSW Trailers ⁽¹⁾	\$0.136	N/A	\$0.083	839,166
Landfill	\$48.283	\$15.702	\$1.346	7386
Transfer Stations ⁽²⁾	\$9.437	\$7.650	\$22.003	25,068
Roll-Off Trucks	\$0.253	\$0.420	\$0.098	26,249

Source: The Authority.

(1) MSW and ash trailer mileage is estimated.

(2) Includes Norfolk, Chesapeake, Franklin, Isle of Wight, Oceana, Landstown, and Suffolk Transfer Stations.

Table 6-7. Cost Summary, FY 2014

Rolling Stock/Equipment	Maintenance	Fuel	Tires	Miles or Hours
Tractors	\$0.254/mile	\$0.785/mile	\$0.087/mile	840,396 miles
MSW Trailers ⁽¹⁾	\$0.127/mile	Not Applicable	\$0.085/mile	840,396 miles
Landfill	\$19.239/hour	\$16.091/hour	\$2.341/hour	8,783 hours
Transfer Stations ⁽²⁾	\$10.510/hour	\$10.272/hour	\$21.505/hour	24,291 hours
Roll-Off Trucks	\$0.050/mile	\$0.556/mile	\$0.062/mile	24,599 miles

Source: The Authority.

(1) MSW and ash trailer mileage is estimated.

(2) Includes Norfolk, Chesapeake, Franklin, Isle of Wight, Oceana, Landstown, and Suffolk Transfer Stations.

Table 6-8. Cost Summary, FY 2013

Rolling Stock/Equipment	Maintenance	Fuel	Tires	Miles or Hours
Tractors	\$0.220/mile	\$0.75/mile	\$0.090/mile	859,087 miles
MSW Trailers ⁽¹⁾	\$0.102/mile	Not Applicable	\$0.081/mile	859,087 miles
Landfill	\$19.997/hour	\$17.477/hour	\$0.741/hour	8,593 hours
Transfer Stations ⁽²⁾	\$9.222/hour	\$10.299/hour	\$21.115/hour	25,000 hours
Roll-Off Trucks	\$0.101/mile	\$0.558/mile	\$0.019/mile	27,241 miles

Source: The Authority.

(1) MSW and ash trailer mileage is estimated.

(2) Includes Norfolk, Chesapeake, Franklin, Isle of Wight, Oceana, Landstown, and Suffolk Transfer Stations.

Table 6-9. Cost Summary, FY 2012

Rolling Stock/Equipment	Maintenance	Fuel	Tires	Miles or Hours
Tractors	\$0.198/mile	\$0.703/mile	\$0.070/mile	970,273 miles
MSW Trailers ⁽¹⁾	\$0.123/mile	Not Applicable	\$0.078/mile	970,273 miles
Landfill	\$14.226/hour	\$18.785/hour	\$2.755/hour	8,541 hours
Transfer Stations ⁽²⁾	\$9.352/hour	\$9.467/hour	\$17.426/hour	28,409 hours
Roll-Off Trucks	\$0.095/mile	\$0.462/mile	\$0.056/mile	27,493 miles

Source: The Authority.

(1) MSW and ash trailer mileage is estimated.

(2) Includes Norfolk, Chesapeake, Franklin, Isle of Wight, Oceana, Landstown, and Suffolk Transfer Stations.

6.7 Summary

Key personnel involved in the operation of the transfer stations, the Regional Landfill, and the maintenance area appear to be qualified to perform their work, and they have been provided with the proper equipment and facilities to meet the Authority's objective of disposing solid waste in an environmentally sound and cost-effective manner. Maintenance of the rolling stock fleet has been adequate to meet the needs of the Disposal System. Based on our observations and reviews as described herein in Section 6, we are of the opinion that the Disposal System is currently being properly operated and maintained. During the site visit, it appeared that the Authority continues to adequately execute its repair and maintenance program.

Historical Information

7.1 Revenue Bonds Issued by the Authority

In April 1984, the Authority issued its \$26,000,000 Guaranteed Revenue Bonds, Series A (Regional Solid Waste Project) (the “Phase I Bonds”), the proceeds of which were used primarily to finance the acquisition and construction of a new regional sanitary landfill located in the City of Suffolk, Virginia (the Regional Landfill), seven transfer stations and supporting equipment, rolling stock, and ancillary facilities (collectively, Phase I). These bonds were refunded in 1989.

In December 1984, the Authority issued its \$107,800,000 Senior Revenue Bonds, Series A (Regional Solid Waste System) (the Series A Bonds). Proceeds of the Series A Bonds were used to finance the RDF Plant and a fuel delivery system located on federally owned land in Portsmouth, Virginia (the “RDF Plant”), as well as a solid waste transfer station located in Suffolk, Virginia, and certain related equipment, rolling stock, and ancillary facilities (collectively with the RDF Plant, “Phase II”). These bonds were refunded in 1989.

Phase I and Phase II of the solid waste management system are referred to herein collectively as the “Disposal System.” The Disposal System has been developed by the Authority to provide an environmentally sound method for disposal of solid waste in the Service Area. The Service Area covers approximately 2,000 square miles in southeastern Virginia and consists of the area served by the Member Communities.

In December 1985, the Authority issued its \$20,000,000 Senior Revenue Bonds, Series B (the “Series B Bonds”). Proceeds of the Series B Bonds were used to finance certain other components of Phase II, including two transfer stations located in Virginia Beach, Virginia. These bonds were refunded in 1989.

In August 1989, the Authority issued \$186,435,000 of Senior Revenue and Revenue Refunding Bonds, Series 1989 (Regional Solid Waste System) (the “1989 Senior Bonds”) and \$23,175,000 Guaranteed Subordinated Revenue Refunding Bonds, Series 1989 (Regional Solid Waste System) (the “Series 1989 Guaranteed Subordinated Bonds,” collectively with the 1989 Senior Bonds, the “Series 1989 Bonds”). The proceeds of the Series 1989 Bonds were used to: (1) advance refund \$23,175,000 outstanding principal amount of the Authority’s Phase I Bonds; (2) advance refund \$107,605,000 outstanding principal amount of the Authority’s Series A Bonds; (3) advance refund \$19,785,000 outstanding principal amount of the Authority’s Series B Bonds; (4) provide up to \$8,500,000 to refund an obligation to the United States Navy (the “Navy”); (5) provide funds for the purchase of land to be utilized as a borrow pit; (6) provide funds for improvements to the existing sanitary landfill; (7) provide funds for certain additional capital improvements; (8) provide moneys necessary to fund and maintain certain reserve funds required under the Resolutions; and (9) pay certain other costs and expenses incurred in connection with the issuance of the Series 1989 Bonds. The borrow pit, the improvements to the existing sanitary landfill, and the additional capital improvements are referred to as the “1989 Project.” These bonds were refunded, in part, in 1993 with the balance defeased on July 1, 1999.

In July 1990, the Authority issued \$550,000 of Subordinated Revenue Bonds, Series 1990 (Regional Solid Waste System Recycling Project) (the “Recycling Bonds”). The proceeds of the Recycling Bonds were used to help pay the capital costs of implementing a part of the Authority’s recycling program. The Recycling Bonds were paid off in August 1995.

In May 1992, the Authority issued \$11,475,000 of Subordinated Revenue Bonds, Series 1992 (Regional Solid Waste System) (the “1992 Bonds”). The proceeds of the 1992 Bonds were used for the acquisition of rolling stock, the excavation of the borrow pit, and the acquisition of necessary land. These bonds were paid off in full on July 1, 1998.

In April 1993, the Authority issued \$50,885,000 of Senior Revenue Bonds, Series 1993 (Regional Solid Waste System) (the “1993 Senior Bonds”). The proceeds of the 1993 Senior Bonds were used to pay for the cost of: (1) modifications to the air pollution control equipment of the co-generating power plant (the “Power Plant”) which had been constructed by the Navy; (2) the expansion of the Authority’s Regional Office Building (“ROB”); (3) additional collection vehicles for the curbside collection of recyclable materials; (4) the construction of a materials recovery facility; (5) solid waste transfer vehicles; and (6) certain additional capital improvements. These bonds are no longer outstanding.

In November 1993, the Authority issued \$147,250,000 of Senior Revenue Refunding Bonds, Series 1993 A (Regional Solid Waste System) (the “1993 A Senior Revenue Refunding Bonds”) and \$10,485,000 of Guaranteed Subordinated Revenue Refunding Bonds, Series 1993 A (Regional Solid Waste System) (the “1993 A Guaranteed Revenue Refunding Bonds” and collectively with the 1993 A Senior Revenue Refunding Bonds, the “1993 A Revenue Refunding Bonds”). The proceeds of the 1993 A Revenue Refunding Bonds were used to refund a portion of the 1989 Senior Bonds and a portion of the Series 1989 Guaranteed Subordinated Bonds. These bonds were refunded in 2009. These bonds are no longer outstanding.

In April 1998 the Authority issued \$33,535,000 of Senior Revenue Refunding Bonds Series 1998 (the “1998 Senior Bonds”) and \$7,080,000 of Senior Subordinated Revenue Refunding Bonds Series 1 (the “Series 1 Bonds”). The proceeds of the 1998 Senior Bonds were issued to provide the funds necessary to refund a portion of the outstanding \$32,250,000 Series 1989 Series Bonds. The Series 1 Bonds were issued to provide the funds to: (1) prepay a Promissory Note issued by the Authority to the City of Virginia Beach, (2) prepay the outstanding balance of a line of credit with First Union National Bank (formerly Signet Bank) and (3) pay the costs of issuing the Series 1 Bonds. These bonds were defeased with part of the proceeds of the Guaranteed Subordinated Revenue Bonds, Refunding Series 2009 (Taxable) bonds in 2009.

In December 1998, the Authority issued \$1,440,000 of Senior Subordinated Revenue Bonds, Series 2 (the “Series 2 Bonds”) the proceeds of which were used to fund: (1) the acquisition of rolling stock for the Authority’s daily operations and (2) certain improvements to Authority facilities. These bonds are no longer outstanding.

In February 2000, the Authority obtained a one-year renewable letter of credit in the amount of \$8,100,000 from a bank to meet the Authority’s obligations to the DEQ to provide financial assurance relating to the capital costs associated with the closure of the Authority’s landfill and other facilities. In evidence of its obligation to repay with interest the bank for any draws on the letter of credit, the Authority issued to the bank its \$8,100,000 Senior Subordinated Revenue Bonds, Series 3 (the “Series 3 Bonds”). These bonds are no longer outstanding.

In April 2000, the Authority issued its Senior Subordinated Revenue Bond, Series 4 Tax Exempt in the amount of \$3,100,000 to provide funds to finance the purchase of rolling stock and other equipment, improvements to the ROB and the Chesapeake Transfer Station and installation of electrical service from the Power Plant to the RDF Plant. It also issued its Senior Subordinated Revenue Bond, Series 4 Taxable in the amount of \$5,500,000 to provide funds to finance contractual obligations with the U.S. Navy to fund a trust fund for the Power Plant and purchase of improvements to the RDF feed systems at the Power Plant. These bonds were refunded in 2001.

In September 2000, the Authority issued its Senior Subordinated Revenue Bond, Series 5 Tax Exempt to secure a line of credit in an amount not to exceed \$3,230,000 to provide funds to finance additional improvements to and for the benefit of the Disposal System and the Power Plant. The Authority issued its Senior Subordinated Revenue Bond, Series 5 Taxable to secure a line of credit in an amount not to exceed \$3,230,000 to provide funds to finance additional improvements to and for the benefit of the Disposal System and the Power Plant. These bonds were refunded in 2001.

Beginning in 2001, the Authority has made extensive use of the VRA's pooled loan programs. These programs offer several benefits to the Authority, chief among which are ready access to the public credit markets at interest costs associated with double and triple A credit ratings and project approvals required by federal tax law by a single elected official as opposed to elected officials in each community where Authority improvements are to be located.

In June 2001, the Authority obtained funding for capital improvements through the VRA's issuance of \$11,030,000 Tax Exempt Revenue Bonds and \$9,480,000 Taxable Revenue Bonds. In evidence of its obligation to repay the loan from VRA, the Authority issued its Senior Subordinated Revenue Bonds, Series 6 and Series 7, respectively, in corresponding principal amounts. This financing refunded the Senior Subordinated Revenue Bonds, Series 4 and 5. These bonds are no longer outstanding.

In December 2001, the Authority obtained additional funding for capital improvements through VRA's issuance of \$3,400,000 of Taxable Revenue Bonds. In evidence of its obligation to repay the loan from VRA, the Authority issued its Senior Subordinated Revenue Bonds, Series 8 in the principal amount of \$3,400,000. These bonds are no longer outstanding.

In December 2002, the Authority obtained funding for capital improvements to the Disposal System through VRA's issuance of \$16,005,000 of Tax Exempt Revenue Bonds and funding for capital improvements to the Power Plant through VRA's issuance of \$150,000 of Taxable Revenue Bonds. In evidence of its obligation to repay the loan from VRA, the Authority issued its Senior Subordinated Revenue Bonds, Series 9 in the principal amount of \$16,155,000. These bonds have a maturity date of April 2014, and the Authority represents that they have been defeased as of March 2014.

Also in December 2002, the Authority obtained funding for capital improvements to the Power Plant through VRA's issuance of \$3,000,000 of Taxable Revenue Bonds. In evidence of its obligations to repay the loan from VRA, the Authority issued its Senior Subordinated Revenues Bonds, Series 10 in the principal amount of \$3,000,000. These bonds are no longer outstanding.

In May 2003 the Authority issued in the original amount of \$39,950,000 its Senior Subordinated Tax-Exempt Bonds Series 11, the proceeds of which were used to refinance a portion of the outstanding 1993 Senior Bonds. The Authority called for early redemption of these bonds in March 2012, and they are no longer outstanding.

In December 2003, the Authority obtained funding for capital improvements to the Disposal System through VRA's issuance of \$13,650,000 of Tax Exempt Revenue Bonds (AMT) and funding for capital improvements to the Power Plant through VRA's issuance of \$3,390,000 of Taxable Revenue Bonds. In evidence of its obligation to repay the loans from VRA, the Authority issued its Senior Subordinated Revenue Bonds, Series 12 in the principal amount of \$13,650,000 and Series 13 in the principal amount of \$3,390,000. The Series 12 bonds were paid off on October 1, 2011, and the Series 13 bonds are no longer outstanding as of 2010.

In June 2004, the Authority issued \$39,390,000 of Senior Revenue Refunding Bonds, Tax-Exempt, the proceeds of which were used to refund certain callable portions of the 1993 Senior Revenue Refunding Bonds. At the same time, the Authority also issued \$1,360,000 of Senior Subordinated Revenue Refunding Bonds, Taxable, the proceeds of which were used to refund certain callable portions of the 1993A Senior Refunding Bonds. These bonds were refunded in 2009.

In November 2004, the Authority issued its \$13,060,000 Series 14 Tax-Exempt and \$2,300,000 Series 15 Taxable Senior Subordinated Revenue Bonds to VRA, with the proceeds of the VRA loans to be used for the Suffolk Transfer Station, recycling carts for automated collection, improvements to facilities and rolling stock in the case of Series 14 and improvements to the Power Plant in the case of Series 15. The Series 14 and Series 15 bonds are no longer outstanding.

In June 2006, the Authority issued \$14,245,000 of Senior Subordinated Revenue Bonds, Series 16 Tax Exempt and \$3,495,000 of Senior Subordinated Revenue Bonds, Series 17 Taxable. The proceeds of Series 16 and Series 17 Bonds were used to pay for capital improvements to the Disposal System. The Series 16 and Series 17 bonds are no longer outstanding.

In October 2006, the Authority made arrangements with Wachovia Bank, National Association for the issuance of \$21,320,000 of Senior Subordinated Revenue Bond Series 21 Taxable. The proceeds were used to pay for capital improvements to the Disposal System. The Bond was refunded with a portion of the proceeds of the bonds described in the succeeding paragraph on October 4, 2007, and are no longer outstanding.

In October 2007, the Authority issued \$25,145,000 of tax-exempt Senior Parity Revenue Bonds, Series 2007A AMT (Regional Solid Waste System) and \$5,865,000 Senior Parity Revenue Bonds, Series 2007B Taxable (Regional Solid Waste System). The proceeds of the 2007 Bonds were used to refund the Series 21 Bond and to make capital improvements and replacements for the Disposal System and the Power Plant. The Series 2007A Bonds were issued with a term of five years ending July 1, 2013. The bonds were secured by a Letter of Credit issued by Wachovia Bank, National Association. The Series 2007B Bonds were issued for a maximum term of two years ending July 1, 2009. The Series 2007B Bonds were paid off in 2009. In June 2012, the Authority used excess cash on hand to call for early redemption of the remaining balance of its Senior Parity Revenue Bonds, Series 2007A, and these bonds are no longer outstanding.

In October 2008, the Authority issued \$12,100,000 of tax-exempt Senior Parity Bonds, Series 2008A to fund Disposal System capital improvements. These bonds have been fully redeemed.

In October 2008, the Authority obtained a one-year Line of Credit in the amount of \$13,200,000 from Wachovia Bank, National Association for capital project financing needs of the Power Plant. The Authority made arrangements in October 2008 with Wachovia Bank, National Association to renew a \$4,000,000 revolving line of credit. In May 2009, these lines of credit were combined into a single line of credit in the amount of \$17,200,000 that is scheduled to expire on May 11, 2010. The Authority reports that the outstanding balance is zero and that there is no intention for the Authority to use or renew this line of credit.

7.2 Additional Authority Actions

In February 2013, the Authority entered into an Accord, Satisfaction, and Release Agreement with the City of Virginia Beach. Pursuant to the agreement, the Authority paid the City of Virginia Beach \$9,500,000 to release the Authority from any future obligation to pay for closure/post closure costs for the Virginia Beach Landfill.

In 2013, each of the eight Member Communities adopted resolutions supporting continued operation of SPSA after 2018 based upon certain agreed upon principles.

7.3 Virginia House Bill 1872

During its 2009 General Session, the General Assembly of Virginia passed legislation (HB1872) that significantly impacted the governance and management of the Authority. HB1872 changed the way that members of the Board are selected after January 1, 2010. These changes include requiring that one member of the Board for each Member Community be selected by the Governor of the Commonwealth of Virginia from a list of three candidates nominated by each Member Community, that all nominees must possess general business knowledge and that none shall be an elected official. They also include provisions regarding the term of the members, the appointment of one ex officio member for each Member Community who shall be employees of that Member Community and provisions concerning the filling of vacancies. The bill places new restrictions on the issuance of debt and requires the Authority to:

1. Prepare a five-year strategic plan,
2. Consider outsourcing any or all functions that may result in reduced costs,
3. Maintain a detailed financial plan,
4. Evaluate landfill capacity annually,
5. Meet certain recordkeeping requirements, and
6. Impose approval requirements regarding contracts.

7.4 Purchase and Sale Agreement with Wheelabrator Technologies Inc.

7.4.1 Sale of the WTE Facilities

In May 2008, the Authority received an unsolicited proposal from Covanta Energy Corporation (“Covanta”) to buy and operate the WTE Facilities. In accordance with the Public Private Education Facilities and Infrastructure Act of 2002 (“PPEA”), the Authority solicited competing proposals. In September 2008, following receipt of competing proposals from Energy Answers International, Foristar LLC and Wheelabrator, the Authority approved the proposals from Covanta and Wheelabrator for participation in the detailed review phase in accordance with its guidelines. From February 2009 through July 2009, the Authority’s Chairman of the Board, staff, and legal advisors conducted extensive competitive negotiations with both companies, resulting in the receipt of offers in July 2009.

Additionally, in July 2009, the Authority received an unsolicited conceptual proposal under the PPEA from ReEnergy Holdings LLC (“ReEnergy”) for the purchase of substantially all of the Authority’s assets including the WTE Facilities.

In September 2009, the Authority’s Board of Directors tentatively accepted a binding and irrevocable offer from Wheelabrator to purchase and operate the RDF Plant and the power plant for a purchase price of \$150 million. Simultaneously, the Authority accepted the ReEnergy proposal for a conceptual phase review and posted notice for a period of 45 days in order to encourage competition.

On November 9, 2009, the Authority received a competing proposal from Wheelabrator and an addendum to its original proposal from ReEnergy. Following considerable time, expense and effort in evaluating all proposals submitted under the PPEA, the Authority’s Board of Directors adopted a resolution at its November 17, 2009 meeting rejecting the all asset purchase proposals received from ReEnergy and Wheelabrator and terminating the all asset procurement. Additionally, the adopted resolution accepted the Wheelabrator proposal to purchase and operate the WTE Facilities for a purchase price of \$150 million and authorized the Authority’s Executive Director to execute the contract with Wheelabrator.

7.4.2 Purchase Agreement

The Authority sold the WTE Facilities to Wheelabrator on April 29, 2010 in accordance with a Purchase and Sale Agreement, pursuant to which Wheelabrator purchased the WTE Facilities for a purchase price that included \$150,000,000 cash and other consideration. The Authority executed a Service Agreement for solid waste disposal services with Wheelabrator that took effect upon the closing of the sale of the WTE Facilities. The initial term of the Service Agreement is through January 24, 2018.

The assets sold and transferred to Wheelabrator (“Acquired Assets”) included:

- RDF Plant that sorts and processes solid waste into fuel
- Power Plant that generates electricity and steam
- Equipment, rolling stock, trucks and fixtures used in RDF and Power Plant operations
- Easements with Navy conveying land rights scheduled to expire in 2049

- Governmental permits (to the extent transferable) relating to the WTE Facilities
- Important contracts, including:
 - Power Purchase Agreement for electricity sales to AEP
 - Agreement with Navy for steam sales
 - Waste Disposal Agreements with commercial haulers delivering third-party solid waste to SPSA transfer stations
 - Contract for disposal of proprietary waste
 - Other O&M contracts relating to the WTE Facilities

The Authority retained the following assets:

- Regional Landfill
- Transfer stations
- Tipping floor, scales, scale houses and roadways at the RDF Plant
- Truck maintenance facility adjacent to the RDF Plant
- Equipment and fixtures used in transfer station operations
- Trucks, trailers and equipment used in the Authority's loading and hauling operations
- All other assets not relating to the WTE Facilities

7.5 2009 Restructuring of the Authority's Debt and 2010 Sale of the WTE Facilities

In May and June 2009, the Authority undertook a restructuring of its debt in order to reduce the large debt service payments that were scheduled to be made in 2009 and 2010. In May 2009 the Resolutions were amended, a Forbearance Agreement between the City of Virginia Beach and the Authority was executed, and a Guaranty Agreement among the Authority, the City of Chesapeake, and the City of Norfolk was executed. In the Forbearance Agreement, the City of Virginia Beach agreed to defer payment, in an amount not to exceed \$26,600,000, of operating and maintenance ("O&M") costs incurred by the City for the operation of the Virginia Beach landfill and excess tipping fees paid to the Authority. In the Guaranty Agreement, the Cities of Chesapeake and Norfolk guaranteed the Authority's obligation under the combined \$17,200,000 line of credit.

In June 2009, the Authority issued its \$71,985,000 Guaranteed Subordinated Revenue Bonds, Refunding Series 2009 (Taxable) to the VRA to partially refund certain series of bonds previously issued by VRA and defease the Authority's 1993A Refunding Bonds, 2004A Refunding Bonds, and 2004B Refunding Bonds, in an aggregate total of \$78,950,000. The VRA's offer to purchase the Authority's bonds was contingent upon five of the Authority's members, the Cities of Franklin, Portsmouth and Suffolk and the Counties of Isle of Wight and Southampton, guaranteeing the full and timely payment of the Authority's bonds. A consequence of the refunding was the reduction in the Senior (debt service) Reserve Account by \$12,818,854 that was applied to the refunding. The net proceeds, the excess Senior Reserve Account funds, and other available funds in the total amount of \$72,502,780 were deposited into an irrevocable trust with an escrow agent to provide for all future debt service payments on the refunded bonds. As a result, the Authority's 1993A Refunding Bonds, 2004A Refunding Bonds, and 2004B Refunding Bonds are considered by the Authority to be defeased.

A portion of the funds previously transferred to the Trustee for benefit of the 1993A debt service was used to pay the 2007B Revenue Bonds in full.

The refunding resulted in a loss on defeasance of \$5,068,456 that has been deferred and is being amortized as a component of interest expense over the life of the old debt. The refunding "back-loaded" the annual debt service payments thereby resulting in lower annual revenue requirements in 2010 through 2013.

In April 2010, the Authority sold its WTE Facilities. It used the proceeds to retire approximately \$122,100,000 of its long term debt as follows: redeemed in whole its \$12,100,000 Senior Parity Revenue Bonds, Series 2008A; called for redemption on June 1, 2010 \$1,670,000 of its Senior Revenue Bonds, Series 2007A; and defeased to their respective maturity or earlier sinking fund redemption dates \$21,615,000 of its Senior Revenue Refunding Bonds, Series 1998. In cooperation with the VRA, the Authority arranged for VRA to call for redemption (i) on June 1, 2010 \$41,800,000 of its Infrastructure Revenue Bonds (Virginia Pooled Financing Program) Series 2006A (Taxable) and (ii) on May 1, 2012 \$17,365,000 its Infrastructure Revenue Bonds (Pooled Loan Bond Program) Series 2003B (AMT); and provide for the defeasance of an additional \$24,400,000 of VRA Infrastructure Revenue Bonds (Virginia Pooled Equity Finance Program) and (Pooled Loan Bond Program) of various series. In each case, the Authority defeased all or a portion of its corresponding principal of its outstanding debt to VRA.

Due to various restrictions in the Authority's bond resolutions, the Authority obtained the consent of its three lenders; the VRA, Wachovia Bank, and the bond insurance company (AMBAC) prior to executing the debt retirement plan. As part of the VRA's consent, the proceeds from the sale were to be applied proportionally among the lenders resulting in a residual level debt service. Additionally, the VRA required the eight member communities to guarantee, by general obligation, repayment of the remaining VRA bonds outstanding. Previous guarantee agreements with the communities were rescinded.

The Authority and VRA also entered into a closing agreement with the Internal Revenue Service ("IRS") the terms of which generally provide that the IRS will not challenge the tax-exempt status of such sale of the WTE Facilities provided (1) the facilities continue to be operated as "qualifying solid waste disposal facilities" within the meaning of Section 141 of the Internal Revenue Code of 1986. Wheelabrator has covenanted to cause the WTE facilities to be "operated as qualifying solid waste disposal facilities" so long as any of SPSA's or VRA's tax-exempt bonds remain outstanding, and (ii) the Authority obtained an allocation from the Governor of the Commonwealth of Virginia of volume cap equal to the principal amount of certain SPSA and VRA tax-exempt bonds portions of the proceeds of which SPSA determined were spent on the WTE Facilities.

In October and November 2010, the Authority used approximately \$17.7 million in excess cash on hand and the balance of the Senior Reserve Fund to defease the balance of the 1998 Senior Revenue Bonds and called for early redemption of \$3.665 million of 2007A Senior Parity Variable Rate Debt.

7.6 Expansion of the Regional Landfill

Since 1988, the Authority has been involved in a continual effort to obtain additional landfill space. The efforts have included obtaining permits for both vertical and horizontal expansions of the Regional Landfill, attempting to find additional landfill sites in the Service Area, conducting environmental reviews of additional land adjacent to the Regional Landfill, and reviewing disposal options at privately owned landfills.

The Authority completed construction of Phase I of Cell VI in spring 2006 and began placing waste there in May 2006. Construction of Cell VI, Phase II was completed in December 2007. With the implementation of the Service Agreement, and the subsequent reduction of waste intake at the landfill, the current constructed landfill has adequate disposal capacity beyond the expiration of the Solid Waste Disposal Agreements and the final maturity of the Bonds.

On June 8, 2011, the Virginia Department of Environmental Quality issued amended Permit #417 for Cell VII expansion of the SPSA Regional Landfill in Suffolk. SPSA permitted Cell VII to assure that the Authority has disposal options into the future and to increase the value of the landfill as a going concern. The proposed Cell VII area is located east of Cell V. Cell VII will add approximately 56 acres of lined disposal area to the landfill and bring the total lined disposal footprint to 244 acres. The area for Cell VII has been cleared. Soil materials are being excavated and used as daily cover for Cell VI operation.

On October 25, 2002, the Authority received its Section 404 Permit from the U.S. Army Corps of Engineers (the “Corps”) related to an expansion of the Regional Landfill onto land located adjacent to the Regional Landfill (the “Expansion Site”). The receipt of the 404 Permit culminated an effort by the Authority that began in 1988 when the Authority began its efforts to obtain additional landfill capacity. The Expansion Site was reduced from 525 acres, which were considered in 1988 to 68 acres east of Cells I through IV. Twelve of those acres contain non-tidal wetlands. The Authority has developed a 98-acre mitigation plan, consisting of a combination of restoration of upland forest, wetland creation, and preservation of forested wetlands, to compensate for the loss of the 12 acres of wetlands.

Pursuant to regulatory changes, which became effective in October 2001 the Authority also obtained a wetlands permit for the Expansion Site from the DEQ, which was issued on June 3, 2002.

Under the terms of the Suffolk Agreement, the Authority is obligated to construct two new transfer stations in conjunction with the construction of Cell VII. The Authority does not foresee constructing Cell VII before the termination of the Suffolk Agreement, so transfer station permitting and construction is no longer being pursued.