PINEWOOD SITE CUSTODIAL TRUST

2016 CAPITAL IMPROVEMENT PROJECTS REQUEST

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EXECUTIVE SUMMARY

The Pinewood Site ("Site") is located in a rural section of Sumter County. It operated as a hazardous waste landfill between 1978 and 2000. As part of the bankruptcy proceedings involving the Site's last operator, Safety-Kleen (Pinewood), Inc.,¹ the South Carolina Department of Health and Environmental Control ("SCDHEC") reached a settlement with Safety-Kleen resolving Safety-Kleen's long term environmental obligations to perform closure and post-closure care of the Site.

The Site is now held in trust for the people of South Carolina through its agency SCDHEC. By permit, the Site must be operated and maintained under post closure care requirements until 2103. The money put in trust for the Site as part of the Settlement was not sufficient to pay the annual costs associated with Site operations, maintenance, monitoring, fiduciary services, and the testing, transportation and disposal of leachate - the hazardous liquid generated by the landfill.

In 2014, SCDHEC submitted a recurring funding request to the General Assembly in order to fully fund the costs of the Site, based on the average annual Site expenditures for the last ten years. The 2015-2016 S.C. Appropriations Act provided \$3.98 million to SCDHEC for such purposes on a recurring basis. Two separate state trust funds hold funds dedicated to addressing environmental concerns at the site. However, additional capital improvements will be needed at the Site to maintain post-closure care for at least the next 88 years, as well as to ensure that the Site remains in regulatory compliance, poses no threat to human health or the environment, and operates in the most cost effective manner.

The Site's interim administrator, Pinewood Interim Administrator, Inc. ("PIA"), has identified several studies and capital improvement projects that it recommends in order to accomplish these long term objectives. This document was prepared after receiving input from certain stakeholders and the public. It provides a report to the South Carolina General Assembly, interested persons, and the people of South Carolina regarding the current status of the Site. It further identifies certain studies and capital improvements currently needed at the Pinewood Site.

The following document contains a brief history of the site, an overview of the Pinewood Site Custodial Trust, and activities of the Trust, as well as permits held by and funds available to the trust. Finally, it sets forth a prioritized list of requested studies and capital improvement projects.

The Trust seeks additional funding for these studies and projects in the amount of \$4,896,650.00, as set forth in table 4, page 21.

¹ Safety-Kleen (Pinewood), Inc. and its parent company Safety-Kleen, Inc. are hereafter referred to jointly as Safety-Kleen.

PROCESS AND PURPOSE

This document has been prepared to identify capital improvements currently needed at the Pinewood Site as of January 2016. It is intended for use by the South Carolina General Assembly, DHEC and the citizens of South Carolina. It was prepared by Pinewood Interim Administrator, Inc. through engagement in a stakeholder process. This report contains the recommendations of the Interim Administrator, with the input and advice of the stakeholders identified on the final page ("Stakeholders") and after the receipt of public comment.

In November and December 2015, PIA convened several meetings with governmental agencies, conservation interests and other interested parties in a stakeholder process. This process resulted in a draft of this document. On January 19, 2016, PIA convened a public meeting in Sumter, SC seeking public input on the draft Stakeholder report. The report and exhibits were posted to a temporary website at www.pinewoodstakeholder.com. PIA sent notice by first class mail to interested parties notifying them of the report, the website address, and advising them of the date, time, and place of the public meeting. The mailing list was generated from several lists provided to PIA by SC DHEC.

Approximately 20 people attended the public meeting. Participants included elected officials, local residents, and a number of stakeholders. The common theme of the questions and comments at the meeting was "find a solution." Participants understood the cost of and need for continued monitoring and maintenance of the Pinewood Site. They did, however, emphasize their desire to have a final solution for the potential threats posed by the landfill and its location.

References throughout this document to "the Trust" refer to the actions undertaken or views that may have been expressed by Kestrel Horizons, LLC during its previous service as Trustee of the Pinewood Site Custodial Trust ("PSCT"), as reflected in the files of the PSCT, and to actions undertaken or views expressed by Pinewood Interim Administrator, Inc. since November 1, 2014 when it began service as the current Interim Administrator and Special Fiduciary of the PSCT. This document does not express any views or statements of any individual, or any entity except in its capacity as acting on behalf of the PSCT. It is also based on the technical work of various consultants to the Trust as well as key information found in historical reports contained in the Trust's records. It is a summary document and not intended to provide complete discussion of any particular issue.

This document is not a review or analysis of regulatory requirements at the Site. It is a current evaluation of likely capital improvement needs, and identification of the need for certain further studies, to ensure that the Site remains in regulatory compliance, poses no threat to human health or the environment, and operates in the most cost effective manner. The capital improvement needs at the Site should, through the work of the successor Trustee and further engagement of stakeholders, be periodically reviewed and evaluated.

BACKGROUND

Brief Site History

The Pinewood Site (the "Site") is located at Camp Mac Boykin Road (SC County Road 51), and is approximately 534 acres in a rural area of Sumter County, South Carolina between the towns of Summerton and Pinewood. The Pinewood Site operated as a clay stone mine from 1972-1978. In 1978 landfill operations began at the Site. During its active life, the landfill was comprised of three separate sections, and received hazardous and non-hazardous waste from thousands of generators around the state and the country. The original cells of Section I were constructed before the enactment of the Resource Conservation and Recovery Act ("RCRA") and had no liner system other than natural clay stone. When RCRA was enacted, the original Section I cells A and B were excavated and a compacted clay and single synthetic liner was installed for Section I and the first two cells of Section II. Changes to RCRA resulted in the use of a synthetic double liner for the rest of Section II and Section III. Section II cell C began receiving waste in 1985.

Pinewood Site Permit Litigation

Pinewood began accepting hazardous waste in 1978 and operated under a permit issued by DHEC. After Congress passed RCRA, Safety-Kleen was required to apply for a new hazardous waste permit from DHEC. Under RCRA, Pinewood qualified for "interim status" which allowed Pinewood to remain open pending DHEC's consideration of a final permit.

In June 1989, DHEC staff, in consultation with the EPA, issued a final permit to Safety-Kleen to operate Pinewood. The permit provided that Pinewood had a capacity limit of 2,250 acre feet of waste, but did not specify whether nonhazardous waste counted toward the capacity limit. Safety-Kleen objected to some of the permit's conditions and requested a hearing with a DHEC hearing officer. Several environmental groups also requested a hearing to challenge the issuance of a final permit.

Before the hearing, Safety-Kleen and DHEC agreed to resolve their differences over the permit by entering into a stipulated agreement. This agreement was not binding on either the hearing officer or the DHEC Board.

The DHEC hearing officer recommended approval of the agency's decision to issue the final permit as modified by the stipulated agreement. The environmental groups asked the DHEC Board to review the hearing officer's recommendation. The Board upheld the issuance of the final permit but rejected the stipulated agreement which had provided that 1) Pinewood could store 2461 acre-feet of non-hazardous waste in addition to 2,250 acre-feet of hazardous waste, and 2) Safety-Kleen would agree not to apply for additional landfill space until Pinewood was within three years of reaching its capacity.

Both Safety-Kleen and the environmental groups petitioned the Sumter County Court of Common Pleas for judicial review of the Board's decision. Safety-Kleen sought reversal of the

Board's decision to reject the separate cap for non-hazardous waste, and the environmental groups challenged the issuance of the permit for Pinewood.

The Court of Common Pleas denied each of the petitions for review, and both sides appealed to the South Carolina Court of Appeals. The Court of Appeals upheld the Board's decision, but with one significant change. See *Leventis v. S.C. DHEC*, 530 S.E.2d 643 (SC Ct. App. 2000). The Court concluded that the rejection of the separate cap for nonhazardous waste would operate retrospectively as well as prospectively. In other words, any nonhazardous waste stored in Pinewood before the Board's decision would count against the total cap. As a result, Pinewood immediately reached permitted capacity because the combination of existing nonhazardous waste and hazardous waste stored at Pinewood exceeded the 2,250 acre-feet cap. Safety-Kleen then petitioned for a writ of certiorari to the South Carolina Supreme Court.

On June 13, 2000 the South Carolina Supreme Court denied Safety-Kleen's petition for writ of certiorari to review the Court of Appeals decision. The next day DHEC ordered Safety-Kleen to cease accepting waste within 30 days because it had exhausted all of its permitted capacity. Safety-Kleen responded by seeking additional capacity on both a temporary and permanent basis. DHEC denied the request. Thereafter, Safety-Kleen filed a petition for bankruptcy under Title II of the U.S. Bankruptcy Code.

<u>Pinewood Site Custodial Trust.</u>

Formation

The Pinewood Site Custodial Trust ("PCST") was formed as a result of a settlement agreement between Safety-Kleen, Inc. its affiliates and debtors and DHEC for the closure and ongoing maintenance of the Site. The agreement was approved by the U.S. Bankruptcy Court as a part of bankruptcy proceedings of Safety-Kleen and its subsidiaries, including Safety-Kleen (Pinewood), Inc., which operated the landfill. The bankruptcy process lasted three years and ended on December 24, 2003. The final settlement transferred the Site, equipment, permits and other Site assets to the PSCT to be held and managed for the benefit and protection of the people of South Carolina; provided certain funding to the PSCT; established a Trustee to oversee closure and post closure care of the Site; appointed DHEC as the sole beneficiary of the PSCT; and provided liability releases to Safety-Kleen.

Trust Funding

The bankruptcy settlement required Safety-Kleen to pay over \$13 million to the PSCT and to fund a Site Trust Annuity that will pay the PSCT \$105 million over 105 years. Currently, the annuity pays out is approximately \$1 million per year. It was intended to fund required closure and post-closure care of the Site in accordance with plans submitted by Safety-Kleen under applicable regulations and permits. The annuity was intended to provide for the engineering, scientific, construction, remediation, operation, maintenance, transportation, disposal, compliance and monitoring activities required by the plans and the various permits and regulations that will apply to the facility over the next century. The fund also intended to

provide for property management activities, including utilities, taxes, insurance and general maintenance.

The bankruptcy settlement also established the New Environmental Impairment Trust Fund (NEITF). Safety-Kleen paid an additional \$14.5 million to the NEITF. Additional funds, in excess of \$20.7 million, were added to the NEITF from a pre-existing environmental impairment trust fund established by Safety-Kleen and its predecessors. This \$35 million NEITF was established for the sole benefit of DHEC to pay for the costs of i) cleanup; ii) restoration of environmental impairment and iii) addressing other environmental concerns at the Site. The NEITF has been significantly depleted through use for cleanup and restoration at the Site, and only approximately \$5.9 million remains in the NEITF.

In addition to the NEITF and its predecessor environmental impairment trust fund, a second fund is dedicated for use at the Site. Section 44-56-160(B)(1) of the South Carolina Code of Laws requires DHEC to hold in a separate and distinct fund 13% of certain fees collected from generators of hazardous wastes. This fund - known as the Permitted Sites Fund - can only be used for response actions² arising from the operation of permitted hazardous waste land disposal facilities in the state.³ Pinewood is the only such facility.

<u>Trustee</u>

The bankruptcy settlement provided for the appointment of a Trustee to oversee and manage the closure and post closure care of the Site. The Trustee holds the Site permits, which include a RCRA Subtitle C Part B Post Closure Care permit, a stormwater permit, NPDES (water discharge) permits, a minor source air permit, and a mining and reclamation permit. The Site maintains a groundwater monitoring system, leachate monitoring, collection and treatment system, groundwater treatment system, stormwater management system, and Site security. DHEC has regulatory oversight of the day-to-day post closure operations at the Site. DHEC's Bureau of Land and Waste Management is the lead agency for oversight of the post closure care. The trust agreement requires the Trustee to perform such measures as are necessary to comply with the permits and in the event of unforeseen circumstances which require additional funds, to submit a supplemental budget to DHEC as beneficiary of the PSCT for the purpose of securing funding from the NEITF.

In April 2003, Kestrel Horizons, LLC (Kestrel) of Greenville, South Carolina, was nominated by Safety-Kleen and approved by DHEC to serve as Trustee for the PSCT. During the period from April 15, 2003, to December 24, 2003, Kestrel began activities needed to ensure that the PCST could begin operating properly. On December 24, 2003, the PSCT was formed and Kestrel

² The South Carolina Hazardous Waste Management Act defines "response action" as any cleanup, containment, inspection, or closure of a site ordered by the Director of SCDHEC as necessary to remedy actual or potential damages to public health, the public welfare, or the environment. S.C. Code §44-56-20 (14).

³ Pursuant to the 2015-2016 S.C. Appropriations Act, Proviso 34.22., SCDHEC has expended funds from the Permitted Sites Fund to support preservation of critical information contained on manifests documenting hazardous waste disposed of at the Pinewood Site as well to provide partial support for staff that perform technical, enforcement and compliance work at the Site. Exhibit A.

formally became Trustee. Kestrel served as Trustee until its resignation effective October 31, 2014.

After Kestrel's resignation, pursuant to the PSCT documents, DHEC exercised its authority to appoint an interim administrator. Pinewood Interim Administrator, Inc. (PIA) was appointed interim administrator effective November 1, 2014, and was vested with the powers of the Trustee pursuant to a contract with DHEC and the appointment of fiduciary powers by the Sumter County Probate Court. PIA is a South Carolina non-profit corporation, whose officers and directors are Robert A. Kerr, Jr., Peter J. McGrath, Jr., and Ben A. Hagood, Jr. Staff resources and legal counsel are provided to PIA by the law firm of Moore & Van Allen, PLLC.

Site Contractors

The Trust contracts with various contractors to perform the operations, maintenance, environmental monitoring, waste disposal and other services necessary for proper operations and compliance at the site. Currently, these contractors include:

TABLE 1

Contractor	Services	
Sumter Transport Company	Operations, maintenance, waste	
	transportation, waste disposal, certain	
	improvement projects, selection and	
	management of subcontractors	
Smith Gardner Inc.	Environmental monitoring	
GEL Engineering, Inc.	Technical assistance and consulting on site	
	history provided to Trust and PIA, Inc.	
Trinity Consultants, Inc.	Air monitoring and regulatory compliance	
	assistance	
TRC Environmental Corporation	Technical Support Services	
Lindler Surveying, Inc.	Surveying	

Trust Activities

Since its inception, the activities of the Trust have consisted of four primary stages. Stage 1 lasted from December 24, 2003 to Mid-2006. Activities during Stage I included:

- closure of the landfill;
- closure and removal of five unused treatment and storage units;
- storm water management;
- roadway system improvements;
- institution of a basic recordkeeping system;
- site infrastructure improvements; and
- the sale of major surplus equipment.

The Trust managed \$16.7 million in funds, most of which were used in 2004 and 2005 to close the landfill, decontaminate and dismantle most of the buildings used for storage and treatment of hazardous waste, and complete major upgrades in site grading, drainage and roadways.

Stage Two lasted from Mid-2006 until 2008. Stage Two activities included:

- interim improvements to the leachate collection;
- improvements to instrumentation; and
- improvements to controls systems.

Beginning in 2005, the Trust began managing the application of the post-closure annuity to provide for ongoing activities at the Site.

Stage Three lasted from 2009 through the first quarter of 2010. Stage Three activities consisted of major improvements to the leachate detection, collection and storage systems, and interim improvements to the leachate management system required for continued off-site disposal.

Throughout these phases, the Trust was responsible for overseeing consultants, contractors, and suppliers who provided services in study, design, construction, remediation, operation, maintenance, transportation, disposal, and monitoring for the Site.

In 2010, The Trust concluded that a fourth—and hopefully final—stage had to be undertaken to prepare the Site for the then remaining 95 years of post-closure care. Six major improvement efforts were included in the 2010 supplemental budget which required funding from the NEITF. These efforts included:

- Installation of a Leachate and Sludge Treatment System and the building to house the system
- Evaluation of Performance of the Section I Cover System
- Review, Enhancement, and Optimization of Environmental Monitoring Systems
- Development of a Post-Closure Operations Management System
- Development of a Preliminary Secondary Containment Plan for Single-Lined Landfill Cells⁴

In April 2015, at the request of SCDHEC, an analysis of current post-closure operations, maintenance and monitoring at the former Pinewood Site was conducted by the consulting firm of Haley & Aldrich.⁵ The purpose of the analysis was to evaluate current Site conditions, recommend priorities for short and long-term improvements at the Site, and review current and projected costs to manage the Site. The analysis concluded that the Site was in compliance with regulatory requirements and there was no evidence indicating a current threat to human health or the environment. Recommendations by Haley & Aldrich for capital improvement projects

⁴ Improvement of Storm Water Management for the Section II Cover System was also designed but not implemented.

⁵ Haley & Aldrich, *April 2015 Analysis of Post-Closure Operations at the Former Pinewood Commercial Hazardous Waste Landfill Site* (Haley & Aldrich Report).

focused on reducing costs associated with leachate collection, treatment and disposal which represent the largest portion of the annual operations and maintenance budget.

The Site is intensely regulated. The Site permits include the following permits issued by DHEC's Office of Environmental Quality Control:

Permit	Permit Name	DHEC	Permit Number	Issue Date
Туре		Program		
Hazardous	RCRA Treatment, Storage,	BLWM ⁶	SCD 070 375 985	July 27, 1989
Waste	Disposal Permit			
Water	NPDES Individual Permit	BOW ⁷	SC0042170	June 22, 2005
Water	NPDES General Permit-	BOW	SCR004229	January 1, 2011
	Storm Water Discharges for			
	Industrial Activity			
Water	NPDES General Permit-	BOW	SCG730026	September 30,
	Stormwater Discharges for			2010
	Nonmetal Mineral Mining			
	Activity			
Air	Operating Permit- Minor	BAQ ⁸	2140-0017	May 29, 2013
	Source			
Mining	Mining and Reclamation	BLWM	I-001014	May 20, 1994
	Permit			

TABLE 2

All of these permits are issued by DHEC, who has regulatory oversight of the day-to-day postclosure operations at the Site.

Current Funding Status.

Over the last ten years, the average annual cost to operate, maintain and monitor the Site, including the costs of fiduciary services and capital improvements, has been approximately \$4.8 million per year. Currently, the approximate annual annuity payment is \$1.0 million, leaving an average annual shortfall of approximately \$3.9 million. To cover the shortfall, SCDHEC submitted a recurring funding request to the South Carolina General Assembly. For fiscal year 2016, DHEC was appropriated \$3.98 million per year by the state General Appropriations Act. DHEC has provided this appropriation to the Trust for management of the Site in accordance with the PSCT.

⁶ Bureau of Land and Waste Management

⁷ Bureau of Water

⁸ Bureau of Air Quality

The New Environmental Impairment Trust Fund balance is approximately \$5.9 million. The Permitted Sites Fund balance is \$20.2 million. **Exhibit A.** The following table summarizes this funding information.

Current Funding Summary:

TABLE 3

Funding Source	Approximate Current Balance	Restrictions/Comments
Trust Annuity	\$1 million per year	Restricted to use for closure and
		post-closure care, and property
		management activities.
State General Appropriations	\$3.98 million per year	2015-16 funding provided to
		DHEC's recurring budget.
New Environmental	\$5.9 million total	Originally funded at \$35 million.
Impairment Trust Fund		For benefit of DHEC to pay
		costs for i) cleanup; ii)
		restoration of environmental
		impairment and iii) addressing
		other environmental concerns at
		Site.
Permitted Sites Fund	\$20.2 million total	Per S.C. Code § 44-56-
		160(B)(1), DHEC holds in
		separate fund 13% of fees
		collected from hazardous waste
		generators. To be used for
		response actions at Site.

RCRA and CERCLA Requirements

Although the prior disposal and current management of hazardous waste at the Site is regulated under RCRA, consideration must also be given to the requirements of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA). Under CERCLA, generators, transporters and arrangers of hazardous substances disposed of at a site "from which there is a release, or a threatened release which causes the incurrence of response costs" are potentially responsible for the costs of response incurred by the state of South Carolina not inconsistent with the national contingency plan (NCP), and any other necessary costs of response incurred by other persons (such as the Trust) consistent with the NCP.⁹ The NCP includes various substantive and procedural requirements depending on the nature of the response action.

Consideration of the various requirements of RCRA and CERCLA is appropriate to ensure full compliance with the Site's RCRA permit, and the ability to recover the costs of response from responsible parties under CERCLA in the event that a CERCLA cost recovery action is pursued by the Trust or the State in the future. The Trust recommends that a procedural framework between the Trust and DHEC be established to ensure that appropriate response actions are developed, implemented and monitored in accordance with CERCLA, the NCP, Superfund guidance and policy, the Site's permits, RCRA, RCRA guidance and policy, and applicable federal and state law.

CAPITAL IMPROVEMENT NEEDS

The Site has a number of capital improvement needs that are discussed below. Current funding is not sufficient to fully pay for these needs. Current funding pays for the day-to-day operation and maintenance of the Site, operation and maintenance of the Leachate Treatment System, monitoring and reporting pursuant to various requirements imposed by the RCRA permit, NPDES permit, mining permit, air permit, insurance premiums, property taxes, waste disposal costs, outside consultants and fiduciary administration. The Site now belongs to the people of the State of South Carolina, and it is very unlikely the people will be able to avoid responsibility for the site. The Stakeholders and PIA have met and discussed a prioritization of capital improvement needs with an eye toward identifying those needs that can produce long-term savings and additional protective measures for a site that must be managed for at least the next 88 years.

1. <u>Enhanced Environmental Protection for Single Lined Cells</u>

A. Enhanced Cover on Landfill Section I.

Section I, the oldest landfill section at the Site, was constructed and operated between 1978 and 1984, and its cells were sequentially closed between 1980 and 1985. The maximum thickness of waste placed in Section I is approximately 45 feet. The landfilled wastes lie primarily below the rim elevation (where the bottom liner and top cover synthetics are joined), though some landfilled wastes lie above the liner rim. As previously mentioned, hazardous wastes disposed in Section I included liquids and leachate solids, which were later banned from further land disposal by state and federal regulations.

The current cover system for Section I consists of the following layers from top to bottom:

- Six-inch thick topsoil layer;
- Two-foot thick (minimum) protective soil layer;

⁹ 42 U.S.C. § 9607 (a).

- Two-foot thick clay cover layer (with a maximum hydraulic conductivity of 1x10-6 cm/sec);
- 20-mil thick polyvinyl chloride (PVC) geomembrane that reportedly was joined with adhesive to the bottom Hypalon® liner; and
- One-foot thick sandy clay layer directly over the waste.

An April 2007 report by Golder and Associates recommended gathering rainfall correlation data to determine the financial advisability of a new cover¹⁰. In 2007 Golder¹¹ estimated that a new cover for Section I would cost \$2.5 to \$3 million.

In 2010 a Site improvement project report by AECOM¹² recommended some cover drainage improvements and construction of other culverts. AECOM expressed concerns about impact of leachate in soil, soil gas and surface water. AECOM concluded that the final cover system appeared overall to be in serviceable condition considering its age, material makeup and construction placement. AECOM recommended a follow up study in 2015, including further destructive testing of the liner. However, the Trust has not pursued further destructive testing of the liner.

In 2015, Haley and Aldridge reviewed current Trust monitoring and rainfall data and concluded that the volume of primary leachate in Section I should be reduced, and recommended a phased approach.¹³ Haley and Aldridge recommended first repair of faulty seals at sump cap penetrations and improvement of drainage as short term improvement projects. It also recommended regrading the clay cap and installation of a multi-layer HDPE cover system as a long term capital improvement project.

The Trust's current monitoring data suggests a positive correlation between rainfall and leachate pumping rates except for several central sumps. Rainfall infiltration not only increases the cost of leachate management, but could also increase the risks of release of hazardous waste or hazardous waste constituents to surface water or ground water from Section I.

Evaluation of rainfall infiltration should be continued after completion of sump top replacement and repair of faulty seals scheduled for the spring of 2016. However, cover enhancements are believed to be necessary. A new cover could place too much weight on top of Section I. The consideration of the addition of a light-weight exposed geosynthetic cover enhancement is recommended. This would be sealed at the sump penetrations. The conceptual cost estimate to design, permit and construct this type of cover enhancement is \$3.5 million.¹⁴ A feasibility

¹⁰ Golder Associates Inc. April 2007 Report on Critical Analysis: Pinewood Facility, p.44-45

¹¹ Golder Associates Inc. April 2007 Report on Critical Analysis: Pinewood Facility, p. 44

¹² AECOM 2010 Pinewood Site Improvement Projects, Section 4.9.1 and Section 4.9.2

¹³ Haley & Aldrich Report, p. 9

¹⁴ GEL Engineering Group, LLC (Engineer) has provided the Trust with an Opinion of Probable Cost (OPC) for the cost estimates contained herein. The OPC is based on a conceptual design and is an estimate based on Engineer's best judgment as a professional familiar with the construction industry. However, Engineer has no control over the *(continued on next page)*

study should be undertaken, including engineering and regulatory reviews, for addition of this Section I cover enhancement to reduce leachate costs and to enhance environmental protection.

<u>Recommended Approach</u>

- Retain a Landfill Engineer to Design a Cover Enhancement to Section I
- *Permit the Cover Enhancements through SCDHEC*
- *Retain a Contractor to Implement the Cover Enhancement to Section I and any Required Drainage Modifications*

B. Landfill Gas Collection System for Section I.

During design and installation of any cover system enhancement to Section I, consideration should also be given to the design and installation of a landfill gas collection system for Section I. During previous routine monitoring of the French drain around the perimeter of Section I, a volatile organic compound was detected in a manhole in the perimeter French drain system. This detection prompted a study by the Trust which included putting certain wells on the Section I cover above the plastic and clay layers and sampling the pore water in the cover soils. The results of the studies support the conclusion that volatile organic compounds are diffusing through the cover of the landfill and could affect the quality of water draining from the cover.

Although no consultant to the Trust has recommended installing a landfill gas collection system, it is prudent to consider such system in conjunction with enhancing the cover on Section I. The conceptual cost estimate to design, permit and construct this a gas collection system underneath an enhanced Section I cover is \$2.0 million.

Recommended Approach

• *Retain a Landfill Engineer to Evaluate the Need for a Landfill Gas Collection System in Conjunction with the Design of a Cover Enhancement to Section I.*

C. Interceptor Trenches for Section I and Single Lined Cells of Section II.

Section I and the single lined cells of Section II pose the greatest risk of environmental harm because of the absence of secondary liner protection. Additionally, questions have been raised about the integrity of the single liner system.¹⁵ The prior Trustee recommended the installation

⁽continued from previous page)

cost of labor, materials, equipment, or services furnished by others, competitive bidding, or market conditions. Therefore, Engineer has made no guarantee regarding the actual cost of the project.

¹⁵ In the late 1990s and early 2000s, SC DHEC conducted an investigation into alleged criminal conduct by the operators of the Pinewood Landfill. After providing the investigative files to the United States Attorney's office for South Carolina, that office declined to prosecute. PIA has reviewed redacted portions of the criminal investigation and found several witness statements detailing activities resulting in breaches or tears in the single wall liner during *(continued on next page)*

of interceptor trenches to connect to existing French drains to monitor and control shallow groundwater around the singe lined cells. Such an interceptor system could be used to enhance monitoring of the water table, as well as collection and treatment of contaminants in the event that a release to the shallow groundwater ever occurs.

Further evaluation should be undertaken including cost and feasibility for developing a robust interceptor trench system around Section I and the single lined cells of Section II. Such a system will require consideration for managing the waters that would be collected should a future release be detected and require collection and treatment. The conceptual cost estimate to design, permit and construct this interceptor trench system is \$2.0 million.

<u>Recommended Approach</u>

• Retain an Engineer/Environmental Consultant to Complete an Evaluation, Conceptual Design and Cost Estimate for an Interceptor Trench System around Section I and the Single-Lined Cells of Section II.

D. Barrier Wall for Section I and Single Lined Cells of Section II.

The Trust has given some consideration to the construction of a barrier wall around Section I and the single-lined cells of Section II in order to reduce the risk of a release to the shallow water table or surface water. This could provide a secondary line of defense for containing a sidewall leak on-site. Eagle has done a conceptual design for installing such a barrier wall around portions of Section I and II. Since the quality of the liner in Section II is better than the Section I liner, installation of a barrier wall for Section II may not be warranted at this time or in the future.

Installation of a barrier wall is an expensive option that needs more investigation to determine if it is a feasible option. Consideration should also be given to managing the waters that would trap between the outside landfill liner and a barrier wall. Extending the Section I cover enhancement beyond a barrier wall would reduce this concern, though groundwater extraction wells or a French drain system may be necessary in this annular space. The conceptual cost estimate to design, permit and construct a barrier wall system around the single-lined cells is \$5.8 million.

Recommended Approach

• Retain an Engineer/Environmental Consultant to Complete an Evaluation, Conceptual Design and Cost Estimate for Constructing a Barrier Wall around Section I and Down-Gradient of the Single-Lined Cells of Section II.

⁽continued from previous page)

landfill operations. The statements also suggest that the breaches or tears were not repaired. This investigation also raised questions about the compatibility of the liner with the wastes disposed of in the single lined cells.

2. <u>Secondary Leachate Reduction and Management</u>

Section I and the first two cells of Section II are single lined cells. Section II cells C-G and Section III are all double lined. Secondary sumps collect leachate generated between the primary and secondary liners. RCRA regulations require management of this secondary leachate as hazardous waste, even though hazardous constituents have not been detected in the secondary leachate above regulatory levels. Storm water and landfill cover drainage at the outer perimeter of the landfill cells is finding its way into secondary liners. This condition is likely due to the design of the landfill; the primary liner and cover are welded together but the primary liner is not welded to the secondary liner. Instead the secondary liners were put in anchor trenches and are buried under four to six feet of dirt at the perimeter of the landfill. The anchor trench is an imperfect design. In recent years over 20% of the leachate produced is secondary leachate. Secondary leachate management is labor intensive because it is manually pumped into a mobile tank trailer and then transferred to the Central Tank Farm for offloading into the stationary holding tanks. While at this time the focus of capital improvement needs should stay on the single-lined cells, in later years there should also be analysis of the risks posed by the double lined cells.

Landfill Section IIIB-Extension is producing excessive amounts of leachate in secondary sump 3B3S and the generation rate trends directly with significant rainfall events. It is believed that the secondary leachate generated at 3B3S is the result of surface and cover drainage at the perimeter of the landfill finding its way into the secondary liner through the geomembrane liner's anchor trench seal. The Trust has attempted to reduce the leachate generation at 3B3S through a phased approach of minor repairs and maintenance that to date have been unsuccessful. Therefore, Engineers have recommended to the Trust that a capital improvement be implemented immediately to reduce secondary leachate production by improving the IIIB-Extension perimeter cover drainage. This improvement would result in immediate leachate management and treatment cost savings and reduce the hydraulic loading on the 3B3S secondary sump and liner system. The conceptual cost estimate to design, permit and construct an improvement to reduce leachate generation in the 3B3S is \$500 thousand.

If characteristics of the secondary leachate render treatment more difficult, the financial implications may become significantly greater. To reduce the cost of leachate management and disposal, practical and regulatory issues should also be addressed to evaluate whether the secondary leachate can be handled as nonhazardous waste.

<u>Recommended Approach</u>

- *Retain a Landfill Engineer to Design a Solution to Prevent Surface and Cover Drainage from Infiltrating into the Secondary Leachate Sumps*
- Retain a Contractor to Implement Recommended Improvement on Problematic Secondary Sump 3B3
- Evaluate technical and regulatory procedures which could render secondary leachate as nonhazardous.

3. <u>Review and Update of Conceptual Site Model</u>

A regulatory Conceptual Site Model ("CSM") typically evaluates a particular site's setting, geology, hydrogeology, sources of contaminants, fate and transport of contaminants, and exposure pathways and receptors for contaminants.

Generally, it is a dynamic model that changes as updated information is obtained. The Site's CSM dates back to operations by Safety-Kleen and original permit approvals by DHEC. The main purpose of the Site's CSM is to identify critical leak pathways and receptors, develop appropriate monitoring, and identify potential corrective measures should a release from the landfill occur. Given the extensive existing monitoring network, it may take years or decades for an anomaly to become apparent.

Historically, the Site's CSM has been based on three critical precepts:

1. Water infiltrating through the cover system and through the body of waste would drop vertically to the bottom of the landfill, be collected in the drainage layer above the liner, and be routed via the under drain system of pipes to the primary sumps for collection and removal.

2. Water passing through the liner system would flow inward and downward. To escape the immediate confines of the landfill envelope, contaminants would have to move against an inward gradient of groundwater and through at least 5-10 feet of low permeability opaline claystone to reach more permeable layers outside of the landfill envelope and be transported over many decades to sediment layers below Lake Marion and/or sediment layers that discharge into Lake Marion.

3. The slow-moving groundwater in the layers beneath the opaline claystone would be readily monitored by use of monitoring wells and provide decades of early warning of contamination so that groundwater intervention would be readily and effectively accomplished.

Concerns have been expressed about the CSM; specifically, whether the presence of liquid waste, the layering of waste in the landfill cells, the potential presence of perched leachate or liquids within Section I, and the "layer cake" of variable waste consistencies in the landfill all create the potential for a release from the sides of the Section I cells (side wall release).

AECOM updated the CSM in 2010. This update included the eventual development of a detailed three-dimensional (3D) Environmental Visualization System (EVS) Model. This 3D EVS Model is a tool capable of displaying physical site features in three dimensions and is useful for visualization, clarification of conceptual issues, and determination of needed capital improvements.

The AECOM update also evaluated the off-site influences caused by pumping in duck ponds several miles away from the site. This seasonal pumping has changed the flow direction for some groundwater zones at the Site to move away from Lake Marion. The Trust has noted that that this information is beneficial to the protection of Lake Marion because it demonstrates that, at least in some groundwater zones at the Site, groundwater direction can be manipulated. The Site managers could, therefore, manipulate flow direction in necessary or beneficial ways, but conversely, factors beyond the site's control could work to manipulate flow in deleterious ways.

The 2015 Haley & Aldrich report is the most recent hydrogeological review of the Site and concluded that there are inward pressures on Section I of the landfill. Leachate collection and removal is essential to maintaining such inward pressure.

The current CSM for Section I should be updated to accurately represent its French drain, the effect of pressure from groundwater on the landfill cells, and the condition of the leachate collection system, which if it does not function properly could increase the risk of a sidewall release.

The Trust also recommends review and updating the Conceptual Site Model in order to evaluate the existing network of monitoring wells, as well as the need for an interceptor system or barrier wall around the single lined cells as discussed further above.

<u>Recommended Approach</u>

- *Retain an Environmental Consultant to Review and Update the Conceptual Site Model, including a model for contaminant fate and transport.*
- Depending on the results of the review of the updated Conceptual Site Model and current groundwater monitoring program, the stakeholders believe that additional prophylactic measures may be required to reduce the risk of environmental harm posed by Section I and the single-lined cells of Section II which do not have secondary liner protection.

4. Potential need for additional ground water monitoring

Stakeholders and others have long expressed concerns over the proximity of the site to Lake Marion and the need to protect against the risk of releases of landfill contaminants to Lake Marion. Currently, over 200 monitoring wells surround the site and are designed to provide early detection of any releases from the Site. **Exhibit B.** Twenty-five additional monitoring wells were recently added, including 9 new wells in the shallow water table around the single lined cells of Section I and II.¹⁶

The additional water table wells around the single lined cells were installed to monitor for the possibility of side wall releases. Some of these wells have been dry and have not yielded groundwater samples. Some of the shallow water table around Section I is dewatered by the French drain and ditches. To date, data from the new water table wells do not demonstrate evidence of any side wall releases, though some low concentrations of 1,4 dioxane, a volatile organic compound, have been detected.

¹⁶ AECOM's June 6, 2013 Technical Memorandum recommended the addition of the monitoring wells. Smith Gardner, Inc.'s Proposal to Install Point of Compliance Monitoring Wells was presented to the Trust on June 17, 2014. The Trust authorized the proposal in November 2014, and the additional wells were installed from December 2014 through February 2015.

Although these monitoring wells, the Site's permits and other compliance requirements are intended to protect against the risk of any release from the Site, many stakeholders have expressed a very low tolerance for any risk of harm to Lake Marion and the environment surrounding the Site. On various occasions, the Trust has discussed conducting a more thorough investigation of the groundwater around the single lined cells to get more extensive data about the shallow groundwater.

Further evaluation should be undertaken for the need for additional protection from sidewall releases either by perimeter French drain monitoring or enhanced water table monitoring.

Recommended Approach

• Retain an Engineer/Environmental Consultant to Review the Updated CSM and Current Groundwater Monitoring Program for Detecting a Side Wall Release from the Single-Lined Cells and Recommend Monitoring Improvements, if Necessary.

5. Facility and Equipment Improvements

As with any other facility of its age, there are several facility upgrades that the Trust should consider. The "Change House" is the central building at the site and contains offices, a conference room, changing areas for site personnel, and storage. This building houses the site's computers, servers, and paper reports. It is a 40 year old structure. Improvements to the Change House should include updated doors and windows that meet current design wind load requirements. The roof should be replaced. During extreme weather events such as the October 2015 "1000-year" rain event, site operators are required to staff the Site continuously to provide operations and maintenance support. The Change House should be upgraded to include facilities to accommodate site personnel who need to spend the night at the site.

Additionally, the "Guard House" at the entrance gate to the site needs significant repairs or should be replaced in order to protect the Site's security monitoring equipment.

There are several equipment purchases that the Trust should consider. While the site has an emergency generator, it would not provide sufficient power to operate the Leachate Treatment System during an emergency power outage. Consideration should be given to investing in an additional generator solely dedicated to operate the Leachate Treatment System in the event of a power outage. Site personnel have requested that the Trust consider a mini excavator for performing general site maintenance and Telescopic Reach Forklift with attachments for site operations. Also, the Trust should consider an enhanced security package including multiple security cameras.

<u>Recommended Next Approach</u>

- Change House Improvements
 - Retain a structural engineer to evaluate the current Change House conditions and design building upgrades to provide shelter for emergency personnel during extreme wind/weather events
 - *Retain a building contractor to implement building upgrades*

- *Repair or Replace Guard House*
- Equipment Purchases
 - Design, purchase and install LTS generator, if feasible
 - Purchase mini excavator
 - Purchase telescopic reach forklift

6. Equipment Cost Replacement Study

The Trust is currently evaluating its machinery, equipment and structures, and has begun preparation of a cost replacement study. The goal of the study is to make reasonable estimates of future expenses the Trust will need to incur and to be able to budget for major repairs and/or replacements more accurately. All Trust property is being itemized and will be assigned an estimated useful Life, and estimated cost of replacement, and estimated year of replacement.

<u>Recommended Next Approach</u>

- Conduct a Cost Replacement Study
- Incorporate into a Long-Range Budget Plan for Funding Considerations

7. Leachate Management

The Site collects and stores leachate in an on-site Central Tank Farm. The leachate is then treated on site in the Leachate Treatment System (LTS). Prior to 2011, leachate was not treated on site but was shipped for disposal at the DuPont Chambers Works treatment, storage, and disposal facility in New Jersey. At the time, this was the most cost-effective option for disposal of the leachate. Beginning in the fall of 2008, DuPont began imposing leachate disposal acceptance standards for leachate shipped from the Site which, over time, made this disposal option more expensive. In the fall of 2009, DHEC, as beneficiary, authorized the Trust to proceed with the design of a permanent treatment system. In early 2010, the Trust engaged URS Corporation to provide design engineering services related to a permanent treatment system for collected leachate. The LTS was completed and became operational in 2013.

The landfill generates an average of 1.0 million gallons of leachate per year, and that volume is increasing. The landfill's leachate management system consists of a liner system, and collection of leachate in a network of 45 primary liner and 23 secondary liner sumps. See Exhibit C. Treated leachate is evaporated and the residual solids are then transported off-site for disposal. The on-site system components and equipment require regular maintenance. A flow chart showing the operation of the leachate collection system is attached as Exhibit D.

A. Leachate Collection and Treatment System.

The rate of primary leachate generation from Section I is approximately 60,000 gallons per month and is trending upward. Leachate generation trends demonstrate that Section I leachate

generation poses a financial risk to the Trust and possibly a future containment risk. Cover imperfections or groundwater infiltration from the bottom of the landfill cells are suspected causes of the increased leachate production. If leachate builds up within a cell and cannot be pumped out, then added pressure could occur on the bottom of the landfill forcing leachate through any liner imperfections possibly resulting in a release from the bottom or side of the landfill cell. Additionally, the wastes disposed in Section I are not homogenous and were disposed prior to prohibition of land disposal of liquid waste; therefore, various concentrations of hazardous waste liquids and solid wastes therefore were disposed of in this section. The consistency and viscosity of leachate generated in Section I varies by sump.

The Trust has considered various leachate collection system improvements. Concern has been expressed over clogging of the leachate collection lines and the potential for long-term failure of the leachate collection system. No access to the leachate collection lines for cleaning was provided in the original design of the landfill. One improvement option would involve installation of leachate extraction sumps by drilling through waste mass to create new collection points, but this approach is not technically advisable due to concerns of penetrating the bottom liner. Alternatively, it may be possible to inject solutions under pressure that would dissolve clogs of residue accumulated in the leachate collection system. This approach has merit but would present technical and regulatory challenges which require further consideration.

The Trust has received a proposal for line cleaning in connection with a sump top replacement project schedule for the summer of 2016. Depending upon the success of this line cleaning, future capital expenditures may be necessary to ensure the proper functioning of the leachate collection system.

Recommended Next Approach

• Conduct the Line Cleaning from Selected Section I sumps in 2016 and Evaluate Results.

B. Leachate Treatment System

The LTS was designed to allow the installation of additional treatment processes in order to help reduce off-site disposal costs while keeping site emissions within acceptable levels. Additional treatment processes could be added to treat organic constituents in the leachate. The Haley & Aldrich report included a proposal, which had been proposed by prior consultants in various forms, to treat the leachate to the quality necessary to allow discharge through the storm water outfall at the site. These treatment technologies could reduce emissions from the site and the cost of leachate treatment and disposal but require further study before selection and implementation of the most appropriate treatment technology and methodology.

Recommended Approach

• Retain a Wastewater Engineer to Conduct a Treatment Alternatives Evaluation and Treatability Study to Reduce Operating and Disposal Costs and Air Emissions of the Current LTS.

8. Long Term Solutions

While all of the capital improvement projects addressed herein are important and can result in enhanced safety and cost savings, none provide a permanent solution to the issues that will likely exist as long as waste remains in the landfill and continues to generate leachate. The Interim Administrator has met with a scientist who believes the process of vitrification may be a viable method to "recycle" hazardous waste into a basalt-like glass. This vitrification process requires further study. The Trust also recommends initial consideration and study of any other potential long term solutions to the management of the hazardous waste at the Site.

<u>Recommended Approach</u>

- *Retain an Engineer to study the vitrification process and whether Pinewood's waste mass could be vitrified.*
- *Retain an Engineer to determine the existence of any other potentially viable long term solutions.*

Set forth below is a table summarizing the Capital Improvement Projects discussed above.

TABLE 4

Pinewood Site Capital Improvement Projects Request – Summary Spreadsheet	
Capital Improvement Requests	Estimated Cost ¹⁷
1. ENHANCED ENVIRONMENTAL PROTECTION FOR SINGLE LINED CELLS	
a. Enhanced Cover on Landfill Section I	
• <i>Retain a Landfill Engineer to Design and Survey a Cover</i> <i>Enhancement to Section I</i>	\$240,000
• Permit the Cover Enhancements through DHEC	\$ 20,000
• Retain a Contractor to Implement the Cover Enhancement to Section I and Required Drainage Modification	\$3,200,000
b. Landfill Gas Collection System for Section I	
• Retain a Landfill Engineer to Evaluate the Need for a Landfill Gas Collection System in Conjunction with the Design of a Cover Enhancement to Section I	\$60,000
c. Interceptor Trenches for Section I and Single Lined Cells of Section II	
•Retain an Engineer/Environmental Consultant to Complete an Evaluation, Conceptual Design and Cost Estimate for an Interceptor Trench System around Section I and the Single-Lined Cells of Section II	\$60,000
d. Barrier Wall for Section I and Single Lined Cells of	

¹⁷ As noted above at fn. 14, GEL Engineering Group, LLC (Engineer) provided the Trust with the OPC for Items 1-3 in Table 4. The cost estimate is based on Engineer's best judgment as a professional familiar with the construction industry. However, Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, competitive bidding, or market conditions. Therefore, Engineer makes no guarantee regarding the actual cost of the project.

Section II	
• Retain an Engineer/Environmental Consultant to Complete a Conceptual Design and Cost Estimate for Constructing a Barrier Wall around Section I and Down- Gradient of the Single-Lined Cells of Section II	\$100,000
2. SECONDARY LEACHATE REDUCTION AND MANAGEMENT	
• Retain a Landfill Engineer to Design and Permit a Solution to Prevent Surface and Cover Drainage from Infiltrating into the 3B3S Secondary Leachate Sumps	\$50,000
• Retain a Contractor to Implement Recommended Improvement on Problematic Secondary 3B3	\$450,000
• Evaluate technical and regulatory procedures which could render secondary leachate as nonhazardous.	\$20,000
3. REVIEW AND UPDATE OF CONCEPTUAL SITE MODEL	
• Retain an Environmental Consultant to Review and Update the Conceptual Site Model	\$40,000
• Depending on the results of the review of the updated Conceptual Site Model and current groundwater monitoring program, the stakeholders believe that additional prophylactic measures may be required to reduce the risk of environmental harm posed by Section I and the single-lined cells of Section II which do not have secondary liner protection.	
4. POTENTIAL NEED FOR ADDITIONAL GROUNDWATER MONITORING	
• Retain an Engineer/Environmental Consultant to Review the Updated Conceptual Site Model and Current Groundwater Monitoring Program for Detecting a Side Wall Release from the Single-Lined Cells and Recommend Monitoring Improvements if Necessary.	\$40,000
5. FACILITY AND EQUIPMENT IMPROVEMENTS	
Change House Improvements	

• Retain a structural engineer to evaluate the current Change House conditions and design building upgrades to provide shelter for emergency personnel during extreme wind/weather events	\$10,000
• <i>Retain a building contractor to implement building upgrades</i>	\$95,150
• Repair or Replace Guard House	Included in above
• Equipment Purchases	
• Design, purchase and install LTS generator, if feasible	\$150,000
• Purchase mini excavator	\$15,500
• Purchase telescopic reach forklift	\$43,500
6. EQUIPMENT COST REPLACEMENT STUDY	
Conduct a Cost Replacement Study	\$7,500
• Incorporate into a Long-Range Budget Plan for Funding Considerations	To Be Determined
7. LEACHATE MANAGEMENT	
a. Leachate Collection and Treatment System	
• Conduct the Line Cleaning from Selected Section I Sumps and Evaluate Results.	\$70,000
b. Leachate Treatment System	
• Retain a Wastewater Engineer to Conduct a Treatment Alternatives Evaluation and Treatability Study to Reduce Operating and Disposal Costs and Air Emissions of the Current LTS.	\$125,000

8. LONG TERM SOLUTIONS	
 Retain an Engineer to study the vitrification process and whether Pinewood's waste mass could be vitrified. Retain an Engineer to determine the existence of any other potentially viable long term solutions. Conduct initial bench scale feasibility studies. 	\$100,000
TOTAL ESTIMATED COST	\$4,896,650

The following individuals actively participated in the stakeholder process, which included various discussions regarding conditions at the Site and recommendations for Capital Improvements, as well as review and input on the contents of this document:

Department of Health and Environmental Control:

David Scaturo Claire Prince Sara Bazemore Katie Phillips

Department of Natural Resources:

Bob Perry Van Whitehead Shannon Bobertz Ken Rentiers

South Carolina Legislature:

Senator Thomas McElveen Ryan Burnaugh (on behalf of Representative Murrell Smith)

Santee Cooper:

Elizabeth Warner Thomas Kierspe

Santee-Lynches Council of Governments:

Michael Mikota

Conservation Organizations/Concerned Citizens:

Former State Senator Phil Leventis Robert Guild, Esq. Janet Lynam, CASE Rebecca Haynes, Conservation Voters of South Carolina

EXHIBIT A

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Cutherine E Heigel. Director Promoting and protecting the health of the public and the environment

December 10, 2015

Mr. Robert A. Kerr, Jr. Pinewood Interim Administrator, Inc. c/o Moore & Van Allen, PLLC 78 Wentworth Street Charleston, SC 29401

Dear Mr. Kerr:

The South Carolina Hazardous Waste Management Act directs the Department of Health and Environmental Control ("DHEC") to establish a Hazardous Waste Contingency Fund under S.C. Code Ann. § 44-56-160 (1980, as amended). Pursuant to §44-56-160 (B) (1), within the Hazardous Waste Contingency Fund there is a separate and distinct fund known as the "Permitted Sites Fund" under the Office of the State Treasurer that is for the purpose of response actions arising from the operation of the permitted land disposal facilities in this State which is the Pinewood Site. As of October 14, 2015, the cash balance in the Permitted Site Fund was \$20,214,117.57.

The General Assembly also authorized DHEC to use funds from the Permitted Sites Fund for legal services related to environmental response, regulatory, and enforcement matters, including administrative proceedings and actions in state and all federal courts, 2015-2016 S.C. Appropriations Act, Proviso 34.22. Pursuant to that proviso, funds have been expended by DHEC to support preservation of critical information contained on manifests documenting hazardous waste disposed of at the Pinewood Site as well to provide partial support for staff that perform technical, enforcement and compliance work at the Site.

Pursuant to §44-56-160 (B)(2), within the Hazardous Waste Contingency Fund there is another separate and distinct fund known as the "Uncontrolled Sites Fund" for use by DHEC to defray the costs of governmental response actions at uncontrolled hazardous waste sites and for response actions arising from accidents occurring within the State in the transportation of hazardous waste materials. As of October 14, 2015, the cash balance in the Uncontrolled Hazardous Waste Sites Fund was \$9,261,389.25.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL 2600 BullStreet • Columbia, SC29201 • Phone: (803) 898-3-132 • www.scdhee.gov

Mr. Robert A. Kerr, Jr. December 10, 2015 page 2 of 2

The balances reported above are captured from DHEC's FY 2016 Statement of Changes in Fund Balances which is updated daily. The financial activity recorded in this report is derived from the South Carolina Enterprise Information System which is South Carolina's book of record.

Please contact me if you need additional information.

Sincerely,

Dappy D. Neel

Daphne G. Neel, Chief Bureau of Land and Waste Management

EXHIBIT B





EXHIBIT C

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EXHIBIT D

