



CITIZENS ADVISORY COMMITTEE MEETING

November 19, 2019
6:30 P.M.

Regional Board Room
723 Woodlake Drive
Chesapeake, VA

AGENDA

1. Call to Order and Approval of Minutes.....Andy Baan, CAC Chairman
2. Feedback on Regional Landfill Tours.....the Committee
3. Procedural Overview.....Andy Baan and Liesl DeVary
4. Presentation on Alternative Landfill Sites.....Liesl DeVary and Jeffrey Murray
5. Group Discussion.....the Committee
6. Planning the Next Meeting.....the Committee and SPSA Staff

**MINUTES OF THE CITIZENS ADVISORY COMMITTEE OF THE
SOUTHEASTERN PUBLIC SERVICE AUTHORITY OF VIRGINIA**

October 29, 2019

A meeting of the Citizens Advisory Committee of the Southeastern Public Service Authority (SPSA) was held at 6:30 p.m. in the Regional Board Room at the Regional Building, 723 Woodlake Drive, Chesapeake, Virginia. The following members were in attendance or as noted:

Mr. John Kish	(CH)	Mr. Richard Pippin	(CH)
Mr. William Raye Moore	(FR)		
Mr. Richard Schwarting	(IW)		
Mr. Willie Barnes	(NO)	Ms. Kim Y. Sudderth	(NO)
Mr. Mark Geduldig-Yatrofsky	(PO)	Mr. Vernon Tillage	(PO)
Mr. John Bunch	(SH)	Ms. Denise Wlodyka (<i>absent</i>)	(SH)
Ms. Ellen Cobb	(SU)		
Mr. Andrew G. Baan	(VB)	Mr. Eric Nielsen	(VB)

* Indicates Late Arrival

** Indicates Early Departure

(CH) Chesapeake; (FR) Franklin; (IW) Isle of Wight; (NO) Norfolk; (PO) Portsmouth, (SH) Southampton County; (SU) Suffolk; (VB) Virginia Beach

Others present at the meeting included SPSA Board of Directors Chairman, Mr. John Keifer and Vice Chairman C. W. "Luke" McCoy**, SPSA Executive Staff, Ms. Liesl R. DeVary, Executive Director, Mr. Dennis Bagley, Deputy Executive Director, Ms. Tressa Preston, Executive Administrator, and HDR Staff, Mr. Jeffrey Murray and Ms. Carita Parks.

1. WELCOME AND INTRODUCTIONS

Ms. DeVary welcomed the Committee and introduced SPSA staff, the Chairman and Vice Chairman of the SPSA Board of Directors, and staff from HDR, the firm that has assisted SPSA with consulting and permitting services since SPSA's inception. Ms. DeVary thanked the Committee for being willing to share their time and knowledge and then invited the Committee members to introduce themselves.

The Committee is made up of people with varying backgrounds, but they each have an interest in serving their community. Many have extensive experience in environmental planning and engineering and local government. Others' expertise is in the private sector, non-profit organizations, and the Navy.

SPSA Board Chairman John Keifer then spoke to the Committee about SPSA's dedication to environmental responsibility and service to its member communities. Looking decades in to the future to plan for the needs of the service area, SPSA is proposing an expansion to the Regional Landfill which is being supported by all eight member communities. With the proposed

expansion comes permitting requirements, one of which is the formation of a Citizens Advisory Committee (CAC). SPSA is not just concerned with only meeting minimum requirements, but wants to embrace the spirit of these regulations. SPSA will be considerate of the Committee's time and listen carefully to what they have to say.

2. CAC ROLES AND RESPONSIBILITIES

Ms. DeVary went over the role the Citizens Advisory Committee and the responsibilities of its members. The CAC will serve in an advisory capacity only, giving their recommendation to the SPSA Board of Directors solely on the subject of landfill options. Because SPSA is a "public body," as an advisory Committee, the CAC is subject to the Virginia Freedom of Information Act (FOIA). In keeping with FOIA regulations, CAC meetings will be public meetings and proper notice given so that citizens may attend. Ms. DeVary went on to explain that due to these regulations, more than two Committee members discussing CAC business would constitute a meeting and individuals found to be in willful violation of FOIA may be subject to fines. Because SPSA is committed to transparency and adherence to FOIA regulations, Ms. DeVary requests that members limit discussion of Committee business to formal meetings.

3. OVERVIEW OF SPSA OPERATIONS

Ms. DeVary gave a brief overview of SPSA's origins, the purpose of the organization and its governing structure. She went on to cover SPSA operations, including facilities, programs and vehicles. Statistics reviewed included employees, waste tonnages, and transportation. Ms. DeVary presented maps to show the locations of SPSA's facilities in relation to each other, and an aerial view of the Regional Landfill with descriptions of individual cells. She discussed the projected life of the landfill, stating that all currently permitted cells could potentially be at capacity by 2035 if all municipal solid waste is deposited there.

Additionally, Ms. DeVary outlined the treatment of landfill gas and the flow of waste in the region. As a point of clarification, Mr. Keifer mentioned that communities are responsible for their individual waste collections which are then brought to transfer stations, or in some cases, directly to the Wheelabrator Refuse Derived Fuel (RDF) Plant. Clarification was also given that municipal "waste" refers to everything except recycling. There was discussion about the costs of Waste to Energy (WTE) at the RDF plant versus landfill. Approximately 83% of waste in the SPSA system goes to the RDF Plant. While WTE is more expensive than the landfill, the resulting ash takes up considerably less space, even serving as a cover which otherwise would have been space taken up by soil. Construction and Demolition Debris (CDD) was also discussed and it was noted that while the Regional Landfill accepts some CDD, it is discouraged. The Regional Landfill is a sanitary, fully lined landfill, so other local options, like the Portsmouth CDD Landfill, are more affordable for communities. Keeping costs low for member communities is one of SPSA's highest priorities, as is evidenced by lowered tipping fees.

Mr. McCoy mentioned some of his history in the field of waste management, stating that working together to find solutions is always best and that SPSA is poised to continue to make good choices for the communities it serves. Ms. DeVary spoke briefly about SPSA's previous financial concerns, but reports that over the course of the last ten years, SPSA has become

completely debt free. Mr. Barnes, who was Chairman of the Norfolk Environmental Commission during that time, congratulated Ms. DeVary on her efforts, stating that SPSA has clearly turned a corner in their business model.



Citizen Advisory Committee
October 29, 2019



Agenda

1. Welcome and Introductions
2. CAC Roles and Responsibilities
3. Overview of SPSA Operations
4. Landfill Regulatory Siting Requirements
5. Planning Future Meetings and Site Visits
6. Election of Chairperson



CAC Role & Responsibilities

- The task of the CAC is to evaluate and review landfill options for SPSA.
- The CAC will serve in an *advisory capacity only*, and will make a recommendation to the SPSA Board regarding preferred landfill options.
- The CAC needs to appoint a committee chair person.
- Meetings shall be open to the public.



FOIA

- SPSA is a public body subject to the Virginia Freedom of Information Act (FOIA).
- FOIA imposes restrictions and procedures to ensure that, except in limited circumstances, the transaction of public business only occurs in open meetings that have been properly noticed. These restrictions can prohibit even informal discussions among members of a public body regarding public business.



FOIA

- The failure to comply with FOIA can lead to enforcement actions and, in cases of willful and knowing violations, monetary penalties against individuals.
- SPSA remains committed to community transparency and openness. To ensure that we all remain in compliance with FOIA, please limit all discussion of the committee's business and activities to formal meetings.
- We do not anticipate that you will receive any requests for documents in your capacity as a member of the committee, but, if you do, please forward them to Liesl DeVary for processing.



History

- SPSA is a public body incorporated in the State of Virginia and has all the rights, powers and duties set forth in Chapter 51 of Title 15.2 of the Code of Virginia.
- Originally created in 1973 as a water authority and in 1976 SPSA's responsibilities were revised to be the regional solid waste disposal system.
- Core Purpose: The management of the safe and environmentally sound disposal of regional waste.
- SPSA is governed by a 16 member board of directors comprised of:
 - 8 Governor Appointed Members (cannot be elected officials)
 - 8 Ex-officio members – an employee of respective member locality



SPSA Operations

SPSA staff operate:

- Nine transfer stations throughout Southeastern Virginia
- The Regional Landfill in Suffolk
- A transportation division including 30 tractors and 40 trailers
- A fleet maintenance operation - 1 shop in Portsmouth and 1 shop at the Regional Landfill
- A household hazardous waste (HHW) program
- A tire shredding facility
- A white goods and scrap metal program and
- A comprehensive safety program



SPSA Stats

- 140 employees
- Transfer Stations handle over 600,000 tons per year.
- The transportation division:
 - Hauls over 425,000 tons per year
 - Drive over 760,000 miles per year
- The Regional Landfill accepts over 325,000 tons per year.
- Fleet Maintenance manages approximately 234 pieces of rolling stock, ranging from pickup trucks, dozers, excavators to tractors and trailers.
- Tire shredder processes over 460,000 tires per year. We use the shredded tires at the landfill for alternate daily cover, drainage projects and road base.

SPSA owns and operates nine transfer stations varying in size.



Aerial View of Landfill

Located on 833 acres in the City of Suffolk.

Cells I - IV account for 100 disposal acres. No more waste is being disposed of in these cells.

Cell V is permitted for 44 disposal acres.

Cell VI is permitted for 41 disposal acres. This is the cell currently being used.

Cell VII is currently operated as a borrow pit to support the landfill operations and is fully permitted for 56 disposal acres.

Cell VIII/IX are for future expansion.



Projected Life of Landfill

- At the current rate of waste disposed at the Regional Landfill, the current cells (V&VI) will be filled by 2029 but could be as early as 2027 dependent on volume, compaction ratio and achieving the planned slopes.
- Cell VII could be filled as early as 2035 if only MSW is disposed in the cell.



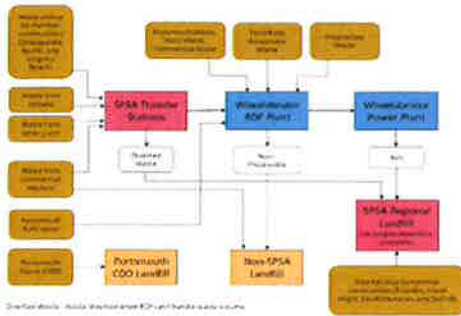
Landfill Gas

- Methane gas is a byproduct of decomposing waste. The gas is extracted and either sold to a local manufacturing plant or used to fuel generators that produce electricity which is sold back to the grid.
- If any excess gas exists it is "flared off" at the power generation plant.
- This is accomplished in conjunction with Suffolk Energy Partners who is a third party contractor.





Flow of Waste



Questions / Comments

Liesl DeVary, Executive Director

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ldevary@spsa.com

4. LANDFILL REGULATORY SITING REQUIREMENTS PRESENTATION

Mr. Jeffrey Murray of HDR, gave a presentation on the regulatory aspects of siting a landfill, illustrating the many considerations in choosing a site. Before moving into the Virginia Department of Environmental Quality (DEQ) regulations, Mr. Murray spoke about past speculations on what the future of waste would look like. Perhaps people envisioned a total absence of the need for landfills in this day and age, but as of yet that technology has not been developed. Ms. DeVary went on to say that SPSA is fully committed to using current technology and exploring new technology to find non-landfill solutions, but that those advancements will never fully negate the need for a landfill. Landfill expansion allows SPSA to be fully prepared to meet their member communities' future needs.

Siting requirements for landfills that hold household garbage, also known as municipal solid waste (MSW), as the Regional Landfill does, include considering floodplains, groundwater quality, the geological stability of the area, location restrictions, wetland protections, limiting site characteristics, and other special considerations like community acceptance and proximity to waste collection areas.

The Regional Landfill meets the extensive criteria laid out in Mr. Murray's presentation, but that does not mean that it is the only option. The CAC can decide if there are other potential areas that meet the requirements and should be considered. The question that Mr. Murray posed to the group was, "if not here, then where?" Additional options would be hauling MSW to a private landfill. Considerations for alternatives would include environmental, geographical, and economic factors.

The following discussions occurred during and after Mr. Murray's presentation. For clarity they have been grouped by subject matter rather than chronology.

- A point of clarification was made that household hazardous waste (HHW) does not enter the Regional Landfill. It is temporarily stored there in limited quantities under controlled

conditions until it can be picked up by a company specializing in hazardous waste disposal.

- The term “leachate” was defined for the group as precipitation that is in contact with waste which then infiltrates the waste and picks up various constituents. To simplify, it is any liquid that is produced by or filtered through waste. SPSA landfill and environmental staff employ numerous techniques to minimize, monitor, and manage leachate at the Regional Landfill.
- Questions were raised about the accuracy and frequency of updates to FEMA floodplain maps. While FEMA does not update maps annually, the understanding is that they are taking climate change into consideration and that they have an ongoing process to update elevation information. Local planning departments siting for development can determine more specific elevation information in their surveying processes. The same is true for landfill siting. The existing FEMA map does not show accurate elevations at the Regional Landfill because there was no base elevation established. SPSA has done its own hydrologic modeling to ensure that development occurs outside of the 100-year flood plan which was indicated by that modeling. The City of Suffolk has reviewed those analyses and concurs with the floodplain findings.
- Hydrology can be used to project whether or not a site could potentially enter a floodplain at a future date by anticipating larger storms and the elevation change that would be necessary to accommodate those potential events. It is not required, but the Virginia DEQ may request that an organization look at differing conditions for future events after a permit is submitted. The wetlands surrounding the Regional Landfill are nontidal and would not be subject to sea level rise.
- The proposed Cells VIII and IX for the Regional Landfill constitute roughly 100 acres for the landfill itself and 29 acres for the perimeter roads and stormwater pond, all of which are wetlands. SPSA would welcome the opportunity to develop mitigation, but the federal criteria followed by the state of Virginia and the Norfolk District require the use of mitigation banks unless banks are not available. Mitigation bank areas have to be located in the same hydrologic unit area as the project site and mitigation must occur before any impact takes place. Permitting requires a mitigation plan, which SPSA is fully prepared to undertake, but not all areas would be impacted at once. It is SPSA’s practice to use future cells as excavation borrow pits to reduce construction costs, meaning some mitigation would happen well before the new cells would be in use and other areas, depending on operational use, potentially would never impact wetlands at all. While irrelevant from a regularity perspective, it should be noted that the wetlands at the Regional Landfill are not high-quality habitat, as it is an area that has been forested for years.

- Groundwater at the Regional Landfill flows northeasterly toward the Great Dismal Swamp. Groundwater, as well as other environmental concerns are monitored by SPSA's Environmental staff, who test and monitor regularly.
- A question was raised about local regulations versus state and federal regulations. The Virginia DEQ follows a program that is approved by the federal Environmental Protection Agency (EPA), so there is no concern there. But receiving state permits does not circumvent getting local approval. For example, the City of Suffolk, where the Regional Landfill is located, requires a number of planning and regulatory requirements. SPSA is fortunate that Suffolk is a cooperative partner in the Regional Landfill. None of SPSA's eight member communities have taken formal action to legislate against siting a landfill in their community, but informally, Suffolk is the only community that has indicated interest and support as a host community.
- In discussing the need for community support, a past proposed Portsmouth transfer station was cited as an example of local opposition. The community objected to standard waste facility associated concerns such as increased traffic, potential odors, and possible vectors like birds and rodents. Additionally, there was a cultural consideration as the proposed site would have been located in a historically disadvantaged community.
- With several challenges facing the current systems, possible cessation of municipal recycling programs was brought up as a factor in relation to useful life considerations at the landfill. Ms. DeVary responded that SPSA is very mindful of the impact of additional municipal waste that would be caused by the reduction or elimination of recycling programs. Immediate responses might include hauling some of the waste collected at the Suffolk transfer station to the Wheelabrator RDF Plant with the revenue from additional waste offsetting the added hauling costs. That would allow more time for construction of additional landfill space. Also, SPSA is always looking into new technologies to manage waste. In the event that SPSA needs to process additional tons of waste that would be created if all eight member communities ended their recycling programs, SPSA has plans in place to handle the influx.
- The subject of possibilities for a closed landfill was raised and Mr. Murray mentioned long-term management plans that could include passive recreation, commercial recreation, or turning the land back to nature. Choices are dependent on regulatory approvals and would only happen after the 30-year post-closure care period in which active monitoring and maintenance is occurring, but much like Mount Trashmore in Virginia Beach, a closed landfill can continue to serve the community in which it is located.



**CELLS VIII & IX PERMITTING
CITIZENS ADVISORY COMMITTEE**

First Meeting | October 29, 2019



01 REGULATORY SITING CRITERIA

9VAC20-81-120. SITING REQUIREMENTS

Floodplains	Stable areas	Restrictions
Groundwater	Wetlands	Limiting Site Characteristics
Special Considerations	Adequate Area to Manage Leachate	Airport Proximity

FLOODPLAINS

No new landfill shall be sited in a 100-year floodplain



STABLE AREAS

Geologically stable areas where adequate foundation support for the structural components of the landfill exists.



RESTRICTIONS

- 50 feet** from the facility boundary
- 100 feet** from any perennial stream or river
- 200 feet** from any residence, school, daycare center, hospital, nursing home, or recreational park area in existence **at the time of application**
- 500 feet** from any well, spring, or other groundwater source of drinking water in existence at the time of application
- 1,000 feet** from the nearest edge of the right-of-way of any interstate or primary highway

RESTRICTIONS

- Park or recreational area
- Wildlife management area
- Critical habitat of any endangered species
- Surface or groundwater public water supply intake or reservoir
- Areas vulnerable to flooding
- Over a sinkhole or solution cavern associated with karst topography
- Over a fault that has had displacement in Holocene time
- Within seismic impact zones



GROUNDWATER

- Factors to be considered in determining whether or not a site can be monitored shall include:
 - Ability to characterize the direction of groundwater flow within the uppermost aquifer
 - Ability to characterize and define any releases from the landfill so as to determine what corrective actions are necessary
 - Ability to perform corrective action as necessary



WETLANDS

- The construction and operation of the landfill will not:
 - Cause or contribute to violations of any applicable water quality standard
 - Violate any applicable toxic effluent standard or prohibition under § 307 of the Clean Water Act
 - Jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the Endangered Species Act of 1973; and
 - Violate any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of a marine sanctuary.



WETLANDS

- Not be constructed in any tidal wetland or non-tidal wetland contiguous to any water body, unless:
 - Impact is < 2 Acres, or
 - Existing Permitted Facility Subject to Provisions of § 10 1-1408.5
- Suffolk Regional Landfill meets this Criteria



WETLANDS

- The landfill will not cause or contribute to significant degradation of wetlands. Including:
 - Erosion, stability and migration potential of native wetland soils, muds, and deposits used to support the landfill
 - The volume and chemical nature of the waste managed in the landfill
 - Impacts on fish, wildlife and other aquatic resources and their habitat from release of the solid waste
 - The potential effects of catastrophic release of waste to the wetland and the resulting impacts on the environment



SITE CHARACTERISTICS

- No Excessive Slopes (>33%)
- Lack of available cover material on-site or commitment from a borrow site
- Presence of springs, seeps, or other groundwater flow
- Presence of gas, water, sewage or electric transmission lines
- Existence of former open dump
- Adequate space to manage leachate
- Airport Proximity



02 OTHER CONSIDERATIONS

OTHER CONSIDERATIONS

- Community Acceptance/Zoning
- Proximity to Waste Generation and Transfer Stations
- Adequate Site Access
- Proximity to Residents/Commercial
- Wastewater Connection
 - Forceman or Hauling
- Stormwater Discharge Location
 - Discharge Requirements



OTHER CONSIDERATIONS

- Property Size
 - Landfill Cells and Roadways
 - Buffers
 - How much is enough?
 - Soil Borrow Areas
 - Support construction and operation
 - Complementary Operations
 - Support Facilities
 - Leachate Pre-Treatment
 - Admin
 - Maintenance Garage
 - LPG to Energy
 - Citizens Drop-Off



5. PLANNING FUTURE MEETINGS AND SITE VISITS

Ms. DeVary polled the Committee about preferred times for meetings and confirmation of upcoming meeting dates. 6:30 p.m. was agreed upon as the meeting time and the next meeting date was set for Tuesday, November 19, 2019. Future meeting dates will be discussed on the 19th. Additionally, site visits to the Regional Landfill were scheduled for Committee Members individually or in groups of two, so that they can learn more about landfill operations.

There was discussion on the best way to move forward with evaluating potential landfill options in addition to expanding the Regional Landfill. Committee members were encouraged to present any ideas that they come up with as individuals. SPSA will gather current information about private landfill options, and any additional information that may be requested, to present to the group at the November 19th meeting.

Ms. DeVary also directed the Committee to SPSA's newly redesigned website for more operational information, including a page dedicated to the CAC. The documents from this meeting will be posted on the website and minutes will be distributed before the November 19, 2019 meeting.

6. ELECTION OF CHAIRPERSON

It was requested that any Committee Member interested in serving as Chairperson of the Committee make that interest known and discuss their qualifications. Mr. Andrew Baan responded that, having served as the Chairman of a Planning Commission in his town, he has experience running a productive meeting and would be willing to take on the role. A vote was taken and Mr. Baan was unanimously elected Chairman of the Citizens Advisory Committee.

7. ADJOURN MEETING

There being no further business to come before the Citizens Advisory Committee the meeting was adjourned at 8:49 p.m.

Andrew G. Baan
CAC Chairman

Submitted by: Tressa Preston, SPSA Executive Administrator



**CELLS VIII & IX PERMITTING
CITIZENS ADVISORY COMMITTEE**

Second Meeting | November 19, 2019



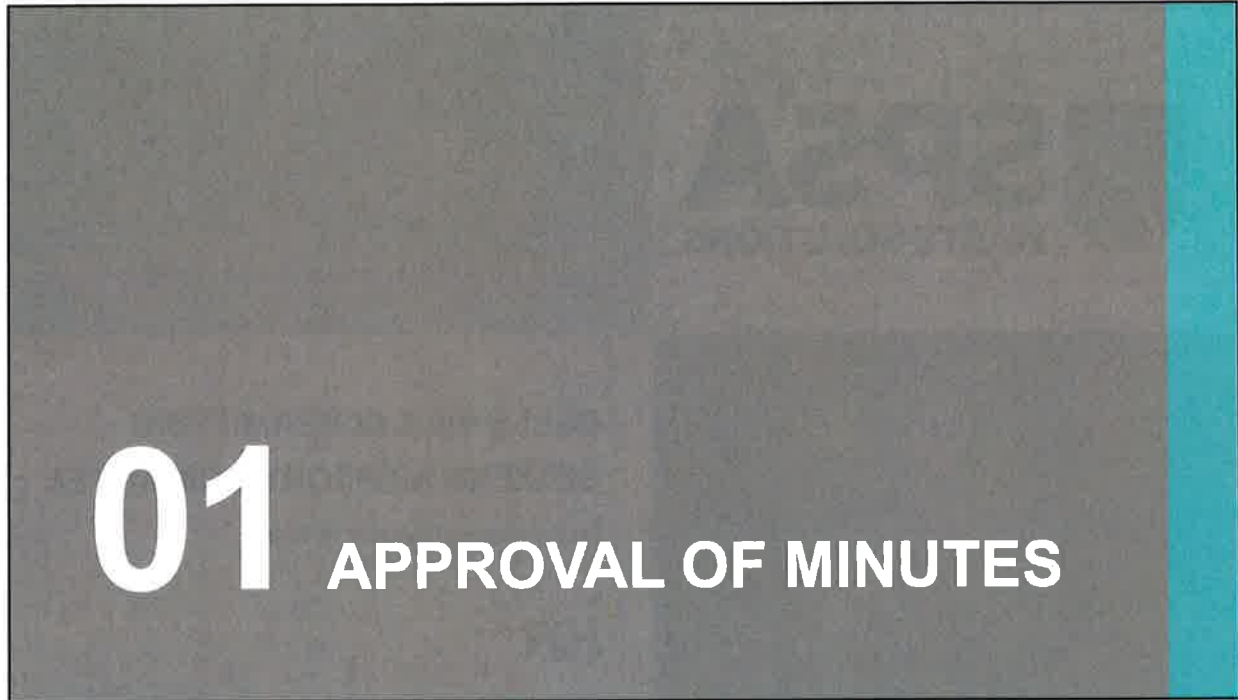
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AGENDA AND EXPECTATIONS FOR TODAY

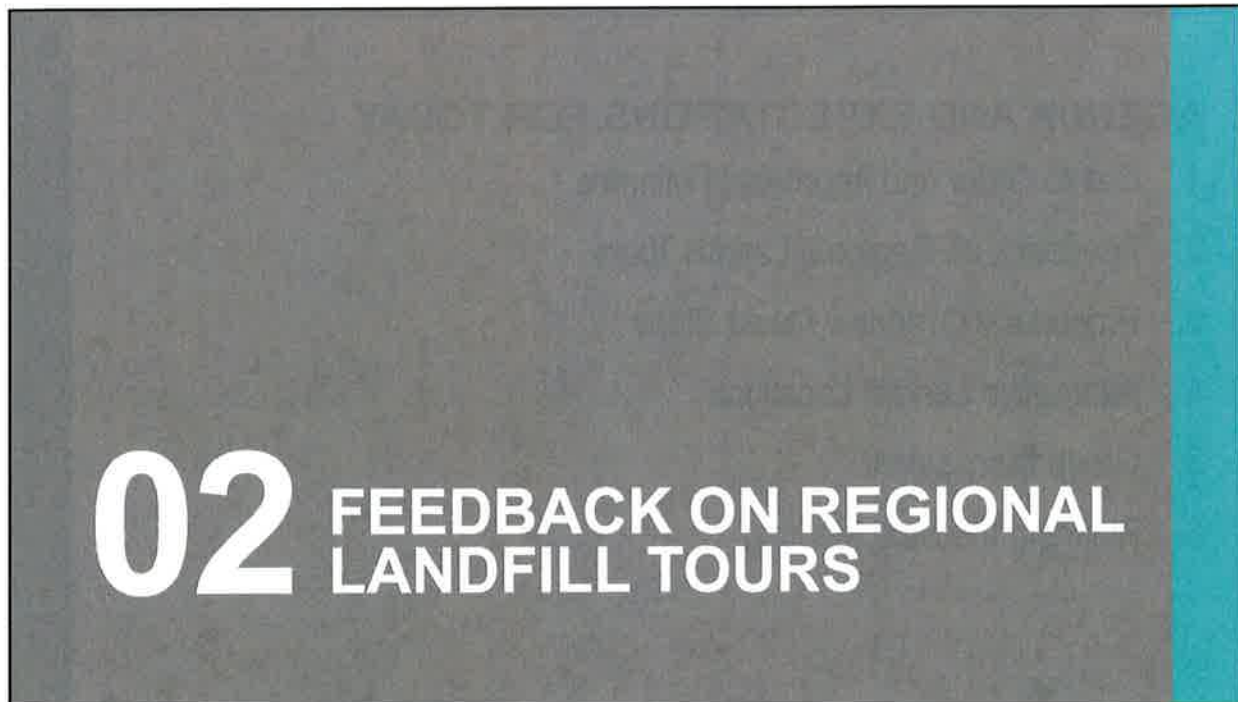
1. Call to Order and Approval of Minutes
2. Feedback on Regional Landfill Tours
3. Procedural Overview / Next Steps
4. Alternative Landfill Locations
5. Group Discussion
6. Planning the Next Meeting

2



01 APPROVAL OF MINUTES

3



02 FEEDBACK ON REGIONAL
LANDFILL TOURS

4

03 PROCEDURAL OVERVIEW

5

CAC MISSION

The CAC will serve in an advisory capacity only, and will make recommendations regarding preferred landfill options, including the possible siting of a new landfill, in order to meet SPSA's disposal needs for the next 20 to 40 years, and *make its recommendations to the Board in the form of a letter or oral presentation to the SPSA Board.*

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04 ALTERNATIVE LANDFILL LOCATIONS

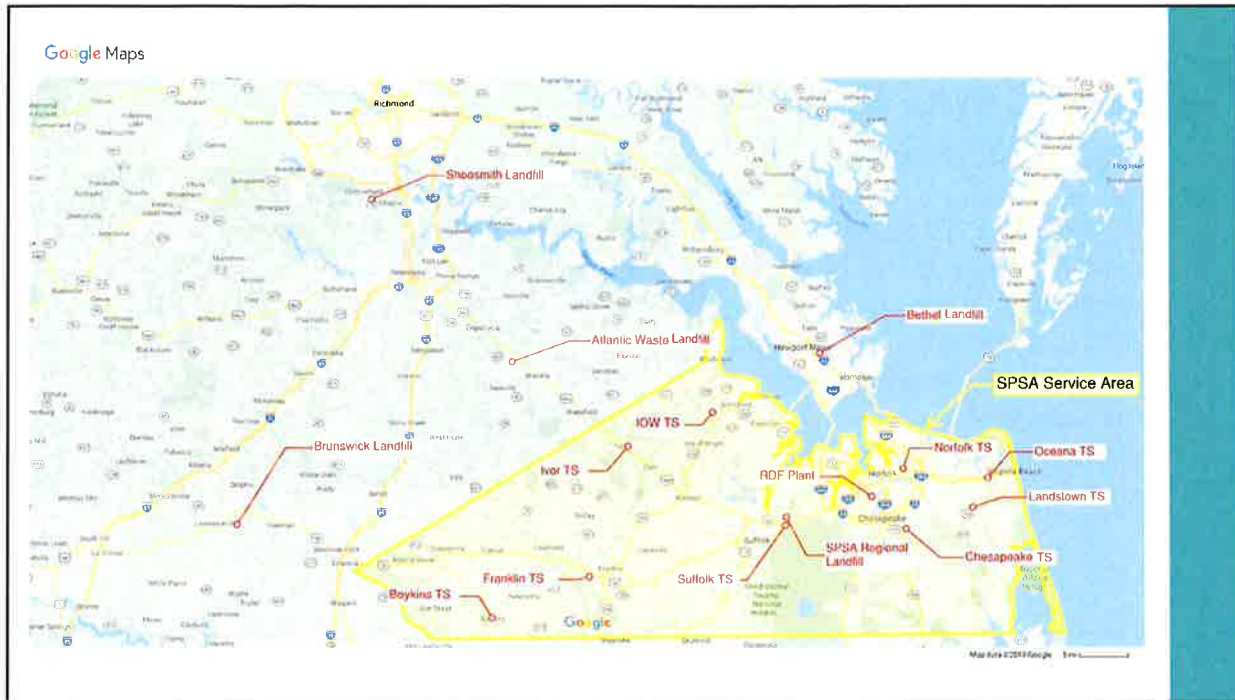
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EVALUATING ALTERNATIVE LANDFILL COSTS

SPSA's direct operating and capital costs are categorized in 4 groups:

1. Transfer Stations
 2. Transportation
 3. Landfill
 4. Other programs such as Household Hazardous Waste, Whites Goods and Tire Shredder
- The indirect costs such as administration, fleet maintenance, scale attendants and environmental are allocated over the 4 groups based on certain factors like waste tons received, labor hours and total operating costs.
 - Regardless of where the waste is hauled, there should be no significant changes to transfer station operations or other programs.
 - We primarily focus on changes to transportation costs and associated capital, fleet maintenance, and landfill costs.

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SPSA REGIONAL LANDFILL

- Operator: SPSA.
- Location: Bob Foeller Dr., Suffolk, VA
- 2018 Disposal: 358,220 tons
- Permitted Capacity: 9,399,117 tons
- Estimated Life: 19 yrs
- Total Transportation Miles: 1,137,234
- Tipping Fee: \$25-30
- Other Considerations:
 - Co-Located with Suffolk TS



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ATLANTIC WASTE DISPOSAL

- Operator: Waste Management, Inc.
- Location: Atlantic Ln, Waverly, VA
- 2018 Disposal: 1,279,485 tons
- Permitted Capacity: 45,497,743 tons
- Estimated Life: 74 yrs
- Total Transportation Miles: 3,056,447
- Tipping Fee: \$40-50 estimated
- Other Considerations:
 - Additional Trailers/Tractors & Staff
 - Increase in fleet maintenance costs



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BETHEL LANDFILL

- Operator: Waste Management, Inc.
- Location: 100 N. Park Ln, Hampton, VA
- 2018 Disposal: 645,913 tons
- Permitted Remaining: 22,467,607 tons
- Estimated Life: 80 yrs
- Total Transportation Miles: 1,607,625
- Tipping Fee: \$40-50 estimated
- Other Considerations:
 - Additional Trailers/Tractors & Staff
 - Increase in fleet maintenance costs
 - Transportation Delays to Hampton



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BRUNSWICK WASTE MANAGEMENT FACILITY

- Operator: Republic Services, Inc.
- Location: 107 Mallard Crossing Rd, Lawrenceville, VA
- 2018 Disposal: 211,151 tons
- Permitted Capacity: 9,982,219 tons
- Estimated Life: 72 yrs
- Total Transportation Miles: 4,480,791
- Tipping Fee: \$40-50 estimated
- Other Considerations:
 - Additional Trailers/Tractors & Staff
 - Increase in fleet maintenance costs



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SHOOSMITH LANDFILL

- Operator: Shoosmith Brothers
- Location: 11520 Iron Bridge Rd, Chester, VA
- 2018 Disposal: 1,002,544 tons
- Permitted Capacity: 20,050,000 tons
- Estimated Life: 30 yrs
- Total Transportation Miles: 4,684,657
- Tipping Fee: \$40-50 estimated
- Other Considerations:
 - Additional Trailers/Tractors & Staff
 - Increase in fleet maintenance costs



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TUNNEL HILL RECLAMATION LANDFILL

- Operator: Tunnel Hill Partners
- Location: 8822 Tunnel Hill Road, New Lexington, OH
- 2018 Disposal: 1,299,797 tons
- Estimated Life: ?
- Total Rail Transportation: 850+ miles
 - 387,434,250 ton-miles
- Rail Cost: \$0.033 to \$0.08/ton-mile e/w
- Tipping Fee: \$25-30 estimated
- Other Considerations:
 - Rail Transfer Station Cost and Access
 - Rail Cars and Container Cost
 - Travel Times and Rail Container Storage



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SUMMARY OF ALTERNATIVE LANDFILL SITES

	Regional Landfill	Atlantic Waste Disposal	Bethel Landfill	Brunswick Waste Management Facility	Shoosmith Landfill
Operator	SPSA	Waste Management	Waste Management	Republic Services, Inc.	Shoosmith Brothers
Location	Suffolk	Waverly	Hampton	Lawrenceville	Chester
Estimated Life	19 years	74 years*	80 years*	72 years*	30 years*
Transportation Miles	1,137,234	3,056,447	1,607,625	4,480,791	4,684,657
Tipping Fee (per ton)	\$25-30	\$40-50	\$40-50	\$40-50	\$40-50

* Life estimates taken from the 2019 Annual Solid Waste Report for CY 2018. Prepared by VDEQ

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05 GROUP DISCUSSION

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06 PLANNING THE NEXT
MEETING

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