CENAO-WRR-R (NAO-1988-00021)

NEPA ID NUMBER: EISX-202-00-E4R-1728404802

RECORD OF DECISION

SUBJECT: Department of the Army Record of Decision for the Southeastern Public Service Authority (SPSA) Regional Landfill Expansion Standard Individual Permit Application

This document constitutes the Clean Water Act (CWA) Section 404(b)(1) Guidelines Evaluation, Public Interest Review, and Statement of Findings for the subject application.

1.0 Introduction and Overview

This document constitutes the U.S. Army Corps of Engineers (Corps) Norfolk District's Record of Decision (ROD) and review and compliance determination under 1) the National Environmental Policy Act (NEPA) of 1969, as amended; 2) Section 404 of the CWA of 1972 (33 USC § 1344), including the 404(b)(1) guidelines; and 3) the public interest review in accordance with 30 Code of Federal Regulations (CFR) § 320.4(a) for the Regional Landfill Expansion proposed by SPSA (Applicant).

The SPSA Regional Landfill Expansion would require authorization in accordance with Section 404 of the CWA because of the discharge of dredged or fill material into waters of the United States (WOTUS). In accordance with NEPA, the Corps acted as the lead agency on the preparation of the draft environmental impact statement (DEIS) and the final environmental impact statement (FEIS). In making this permit decision, the Corps relied on the FEIS (Corps, 2025); supporting information, data, and analyses; and information contained in the Applicant's Department of the Army (DA) CWA Section 404 Permit application and in the Applicant's Section 401 Water Quality Certification dated May 20, 2025 (Section 401 of the CWA and in accordance with 33 CFR § 320.4(a) public interest review). In doing so, the Corps considered the possible consequences of the Applicant's Preferred Alternative in accordance with regulations published in 33 CFR Parts 320 through 332 and 40 CFR Part 230, as well as the stated views of interested agencies and the public regarding the proposed project. SPSA has selected the proposed layout identified in the FEIS as Alternative C as their preferred alternative. A detailed description of the project can be found in Section 2 of the FEIS.

1.1 Applicant name

Mr. Dennis Bagley
Southeastern Public Services Authority (SPSA)
723 Woodlake Drive
Chesapeake, VA 23320

1.2 Activity location

SPSA Regional Landfill is located at 1 Bob Foeller Drive off merged U.S. Routes 58, 13, and 460 in Suffolk, Virginia (36.765420, -76.515147). The proposed Expansion Site, Cells VIII and IX are 137.18 acres and drain to Burnetts Mill Creek, a tributary to the Nansemond River.

1.3 Description of activity requiring permit

SPSA proposes to permanently impact 109.64 acres of forested wetlands for the expansion into Cells VIII and IX to provide approximately 16 million cubic yards (CY) of disposal capacity at the existing Regional Landfill at 1 Bob Foeller Drive in Suffolk, Virginia. SPSA is responsible for the management of the safe and environmentally sound disposal of regional waste for its Member Localities: the cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk and Virginia Beach, and the counties of Isle of Wight and Southampton. The proposed work is shown on the drawings entitled “SPSA Cells VIII and IX Subgrade Plan” dated January 9, 2024, by HDR.

1.3.1 Proposed avoidance and minimization measures

During the initial stages of the EIS process, SPSA proposed to impact 129 acres of wetlands. After redesigning the expansion cells, SPSA proposed 117.36 acres of wetland impacts and that design was reviewed as Alternative B in the FEIS. Using a combination of onsite alternatives, SPSA was able to reduce the need within the Expansion Area and avoid approximately 7.72 acres of wetlands, which equated to 109.64 acres of wetland impacts. This onsite alternative (Alternative C), which includes expansion into Cells VIII and IX and utilizing the airspace between Cells V and VII within their current active facility boundary, is SPSA’s preferred alternative and was reviewed as such in the FEIS. Alternative C avoids 23.81 acres of wetlands within the proposed Cells VIII and IX. The 23.81 acres of wetlands would be preserved as part of the mitigation plan.

1.3.2 Proposed compensatory mitigation

SPSA has proposed compensation for the 109.64 acres of forested wetland impact through the purchase of 159 credits from established mitigation banks (2:1 ratio) and preservation of at least 602.80 acres of forested wetland (10:1 ratio) to obtain the remaining 60.28 credits. SPSA has indicated that the purchase of these mitigation bank credits would meet the no net loss requirement with a total of 114 acres of wetlands generated by creation or restoration. SPSA purchased 83 credits from the Chesapeake Mitigation Bank, which is approximately 6.5 miles east of the Expansion Site. SPSA also purchased 76 wetland credits from the Davis Wetlands Bank, which is approximately 15 miles southeast of the Expansion Site. SPSA proposes the conservation of 742.56 acres of primarily forested wetland habitat within the sub watershed (020802080105-Nansemond River-Cedar Lake), with 629.67 acres sanctioned for wetland

compensatory mitigation and 112.89 acres partitioned for canebrake rattlesnake habitat. These properties were selected to compensate for impacts associated with Cells VIII and IX due to their proximity to the impact area, similar history, and ecological characteristics. The preservation areas include an avoided portion of Cells VIII and IX and the former Cells X, XI and XII, which were previously included in plans for future landfill development. SPSA proposes to utilize a conservation easement held by a third-party entity to ensure permanent protection of the 742.56 acres.

1.4 Existing Conditions and Applicable Project History

The proposed Expansion Site is located at the Regional Landfill in Suffolk. The 137.18-acre site contains 133.79 acres of forested wetlands and 0.93 acres of ditch. The uplands located within the expansion area total approximately 2.46 acres and exist in a linear area between the broad flat wetlands and the ditch along the adjacent utilized landfill cell to the northeast. The wetlands drain to Burnetts Mill Creek, which flows through the proposed preservation area and is a tributary to the Nansemond River. A thorough discussion about the wetland functions and values at the proposed Expansion Site are within Chapter 3, Biological Resources, of the FEIS, and a functional assessment of the proposed Expansion Area is attached in Appendix G of the FEIS. The Regional Landfill has been in its current location since the mid-1980s, and the initial phases included Cells I-VI. On September 27, 2002, the Norfolk District authorized impacts to 12 acres of forested wetlands under an Individual Permit for the development of Cell VII. As compensatory mitigation for the 12 acres of wetland impacts, SPSA was required to restore hydrology to a 12-acre area, enhance the hydrology in a 36-acre adjoining parcel, and preserve a 50-acre forested wetland area within the Regional Landfill property boundaries. A full description of the project background can be found in Chapter 1, Project Background, of the FEIS.

1.4.1 Jurisdictional Determination

Is this project supported by a jurisdictional determination? Yes, Norfolk District issued a Preliminary Jurisdictional Determination for the area encompassing Cells VIII and IX on August 24, 2022.

1.5 Permit authority

Table 1. Permit Authority

Section 10 of the Rivers and Harbors Act (33 USC 403)	
Section 404 of the Clean Water Act (33 USC 1344)	X
Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 USC 1413)	

2.0 Scope of Review for National Environmental Policy Act (Scope of Analysis), Section 7 of the Endangered Species Act (Action Area), and Section 106 of the National Historic Preservation Act (Permit Area)

2.1 Determination of Scope of Analysis for National Environmental Policy Act (NEPA)

The determination of the scope of analysis for the Corps Federal action is guided by the Corps Regulatory Program NEPA implementing regulations at 33 CFR Part 325, Appendix B. Under the regulations, the scope of analysis, at minimum, includes waters of the U.S. (WOTUS) where regulated impacts are proposed, as well as uplands where there is sufficient Federal control and responsibility to warrant Corps review. We have applied the four-factor test found in 33 CFR Part 325, Appendix B to determine if there are portions of the larger project beyond the limits of the Corps' geographic jurisdiction where the federal involvement is sufficient to turn these portions of an essentially private action into a federal action. The purpose of establishing the scope of analysis is to identify the geographic area within which the Corps is responsible for evaluating environmental effects, thereby ensuring the impacts of the specific activity requiring a DA permit and those portions of the entire project over which the Corps has sufficient control and responsibility to warrant Federal review are evaluated. Based on the Corps' application of the guidance in Appendix B of 33 CFR Part 325, the scope of analysis for this review includes the entire footprint of the applicant's preferred project. These components have been determined to be within our scope of analysis as the extent of federal involvement is sufficient to turn these portions of an essentially private action into a federal action with the resulting environmental consequences of the larger project essentially being products of the Corps' permit action.

2.2 Determination of the Corps' Action Area for Section 7 of the Endangered Species Act (ESA)

For the purposes of Section 7 of the ESA, the "action area" means all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR § 402.02). The Action area encompasses all of Cells VIII and IX and the area between Cells V and VII, plus the preservation areas under the mitigation plan.

2.3 Determination of Corps' Permit Area for Section 106 of the National Historic Preservation Act (NHPA)

The permit area includes those areas comprising waters of the United States that will be directly affected by the proposed work or structures, as well as activities outside of

waters of the U.S. because all three tests identified in 33 CFR Part 325, Appendix C 1.(g)(1) have been met.

The permit area includes these areas comprising WOTUS that would be directly affected by the proposed project and uplands directly affected as a result of authorizing the proposed work. The Permit Area encompasses the entire project, which includes Cells VIII and IX and the area between Cells V and VII, plus the preservation areas under the mitigation plan. The Area of Potential Effect does not include areas outside the limits of disturbance, as there are no individual historic properties or contributing resources to historic districts in the vicinity of proposed Cells VIII and IX and the proposed landfill expansion would be screened with forested buffers so that activities at the landfill would most likely not be visible from readily accessible areas, except from the landfill property itself.

3.0 Purpose and Need

3.1 Project Purpose and Need

The project purpose and need is provided by the applicant and independently reviewed by the Corps. SPSA's stated purpose of the proposed project is to expand its operations into Cells VIII and IX to create approximately 16 million CY of disposal capacity at the existing Regional Landfill, in order to continue to meet the region's long-term solid waste disposal needs in a safe and environmentally sound manner. The Corps has reviewed the applicant's purpose and need and has determined that the underlying purpose and need, from a public interest perspective, is to provide safe and environmentally sound solid waste management for the region through approximately 2060 consistent with the Regional Solid Waste Management Plan for Southeastern Virginia and the Use and Support Agreements with the member localities.

Under 9 VAC Section 20-130-120, SPSA is required to develop a solid waste management plan that contains an "assessment of all current and predicted needs for solid waste management for a period of 20 years and a description of the action to be taken to meet those needs." The planning period for SPSA's current Regional Solid Waste Management Plan (RSWMP) extends to 2040, and thus SPSA must plan for solid waste management through at least that year. The current RSWMP expires in 2025, so this year, SPSA's required planning horizon will be extended to 2045. Under SPSA's Use and Support Agreements with its member localities, SPSA is further required to maintain 20 years of operating capacity; accordingly, SPSA is also obligated to provide and maintain disposal capacity through at least 2045.

Based on current and anticipated municipal waste tonnages to be processed by SPSA, the existing landfill area at the Regional Landfill in Suffolk, Cells V and VI, will run out of

capacity in 2027. In 2002, the Corps and the State of Virginia authorized an additional landfill area, Cell VII. Once in operation, Cell VII will provide approximately 10 additional years of disposal capacity, through 2037. Per the regulatory and contractual requirements discussed above, SPSA has a current obligation to plan for and provide additional capacity through at least 2045.

Taking into consideration the applicant's stated purpose to develop an additional 16 million CY of disposal capacity at the Regional Landfill and the Corps' independent analysis of regional demand for additional capacity, the Corps determined that 16 million CY would provide disposal capacity through roughly 2060. Due to the significant time required for planning and permitting landfill development, including coordination with the public, completing environmental consultations, and lengthy dewatering and construction timeframes, the Corps has determined that it is appropriate to plan for capacity beyond the 20-year windows for required planning and operating capacity.

The project purpose and need is discussed in more detail in Chapter One of the Final EIS.

3.2 Basic Project Purpose

Basic project purpose, as determined by the Corps: The basic project purpose is to provide solid waste management for the region from 2037 through approximately 2060.

3.3 Water Dependency Determination

The proposed Project does not require access or proximity to, or siting within, a special aquatic site to fulfill its basic purpose. Alternatives that do not involve impacts to special aquatic sites are presumed to be available.

3.4 Overall Project Purpose

Overall project purpose, as determined by the Corps: The underlying purpose and need, from a public interest perspective, is to provide safe and environmentally sound solid waste management for the region through approximately 2060, consistent with the RSWMP for southeastern Virginia and the Use and Support Agreements with the member localities.

4.0 Public Outreach and Coordination

In response to the COVID-19 pandemic, on March 24, 2020, the Corps issued a memorandum, Interim Army Procedures for National Environmental Policy Act (NEPA), which was relied upon for scoping. A meeting invitation was emailed to federal and state agencies on April 15, 2020, and a virtual agency pre-scoping meeting was held via WebEx on May 7, 2020. The Norfolk District published a Notice of Intent and initiated the scoping process in the Federal Register to notify the public of the intent to prepare a

Draft EIS (DEIS) on July 27, 2020. A public notice and notices to interested parties and local, state, and federal elected officials were sent via email on July 31, 2020, providing information about the proposed project and announcing that the Norfolk District was conducting public scoping for the SPSA Landfill Expansion Project EIS from July 31, 2020, through September 14, 2020. The Norfolk District established a web-based Virtual Public Scoping Room (https://projects.vhbapps.com/spsa-eis/) that provided information about the project, including maps showing the project site and updates on the ongoing alternatives analysis. Based on comments received and further analysis, the Norfolk District refined the preliminary range of alternatives and identified two on-site alternatives as well as six possible off-site alternatives for potential evaluation in the EIS. The Norfolk District held an additional scoping period from December 17, 2020, to January 18, 2021, to accept comments on the alternatives to be reviewed.

The Norfolk District published the DEIS on June 16, 2023. The DEIS was distributed to interested individuals, agencies, and organizations and was available for public and agency review for 60 days. The Norfolk District conducted two public information sessions in June 2023 and two public hearings in July 2023. The meetings were held in the City of Suffolk, Virginia (proposed expansion location) and in the Town of Ivor, which is in Southampton County, Virginia (near the proposed alternative site SH30).

Comments on the DEIS were received after the publication of the public notice, during the public hearings as recorded and transcribed in the meeting transcript, and during the comment period. Comments on the DEIS were considered by the Norfolk District during the development of the Final EIS (FEIS) and are addressed in the Comment Response Summary (Appendix J) of the FEIS. The FEIS was published in the Federal Register on February 28, 2025 (90 Fed. Reg. 10895), and Norfolk District posted a Public Notice announcing the availability of the FEIS on that same date. The announcement was sent via email and hard copy mailings to over 600 parties. The Norfolk District accepted comments on the FEIS for 30 days (until March 31, 2025) following publication in the Federal Register.

5.0 Alternatives Analysis (33 CFR Part 325 Appendix B, 40 CFR § 230.5(c), and RGL 88-13)

An evaluation of alternatives is required under NEPA for all jurisdictional activities. NEPA requires discussion of a reasonable range of alternatives, including the no action alternative, and the effects of those alternatives. An evaluation of alternatives is required under the Section 404(b)(1) Guidelines for projects that include the discharge of dredged or fill material to waters of the United States. Under the Section 404(b)(1) Guidelines, practicability of alternatives is taken into consideration and no alternative may be permitted if there is a less environmentally damaging practicable alternative.

5.1 Site Selection/Screening Criteria

To be practicable, an alternative must be available, achieve the overall project purpose (as defined by the Corps), and be feasible when considering cost, logistics, and existing technology.

The Corps conducted a multi-step process to screen the range of alternatives to determine which alternatives are reasonable, practicable, and meet the project purpose. The project alternatives were analyzed using the following screening criteria to identify a range of reasonable alternatives: satisfaction of the overall Project purpose, practicability based on CWA Section 404(b)(1) guidelines (i.e., technology, logistics, and cost), and consideration of potential aquatic resources impacts. Alternatives that are practicable are those that are available and capable of being done by the Applicant considering the project purpose. An alternative needs to fail only one practicability factor to be eliminated during the screening process. Those practicability factors include:

- Existing Technology – The alternatives examined should consider the limitations of existing technology yet incorporate the most efficient/least-impacting construction methods currently available.
- Logistics – The alternatives evaluated may incorporate an examination of various logistics associated with the project. Examples of alternatives that may not be practicable considering logistics could include placement of facilities too far from major thoroughfares, size and configuration of site, and/or safety concerns that cannot be overcome.
- Costs – The overall scope/cost of the project is considered as to whether it is unreasonably expensive. This determination is typically made in relation to comparable costs for similar actions in the region or analogous markets. If costs of an alternative are clearly exorbitant compared to those similar actions, and possibly the Applicant's preferred action, they can be eliminated without the need to establish a cost threshold for practicability determinations. Cost is to be based on an objective, industry-neutral inquiry that does not consider an individual Applicant's financial standing. The data used for any cost must be current with respect to the time of the alternatives analysis. A location far from existing infrastructure might not be practicable based on the costs associated with upgrading/establishing the infrastructure necessary to use that site. However, just because one alternative costs more than another does not mean that the more expensive alternative is impracticable.

Regarding an alternative's availability, the 404(b)(1) Guidelines state that if it is otherwise a practicable alternative, an area not presently owned by the Applicant that could reasonably be obtained, utilized, expanded, or managed to fulfill the overall purpose of the proposed activity can still be considered a practicable alternative. In

other words, the fact that an Applicant does not own an alternative parcel does not necessarily preclude that parcel from consideration as a practicable alternative. This factor is normally considered as a logistics and possibly a cost limitation, and further investigation into parcel acquisition may result in a determination of impracticability.

5.1.1 On-site Alternatives Screening Process

Ten alternatives located at the existing SPSA Regional Landfill were analyzed in support of the project purpose and need to establish 16 million CY of waste disposal volume. All on-site alternatives require expansion into proposed Cells VIII and IX in varying amounts to meet the project need. Several factors were considered when developing on-site alternatives; these include the following:

- Traditional landfill construction and operations
    - Effective soil management allows SPSA to utilize soil on-site rather than obtain or dredge material from elsewhere.
- Location of an existing natural gas main that bisects the SPSA Regional Landfill
    - The timeframe required to relocate the pipeline is approximately 30 years; complete utilization of current and future approved capacity at the Regional Landfill is anticipated to occur in 2037, and additional capacity is needed by at least early 2036 to accommodate the “soft opening” required for new landfills. The soft opening protects the liner system by only allowing softer materials to be placed in the new landfill system.
    - Pipeline relocation would cost more than $34 million.
- Existing leachate and landfill gas infrastructure
    - Relocating or extending this system would be difficult to complete; the addition of over 200 feet of riser pipe would be subject to stresses from the waste materials placed over and around them; the additional riser pipe would also increase the difficulty of removing and reinstalling submersible leachate pumps for maintenance.
    - In some cases, sump risers would need to be decommissioned which can only happen when leachate generation has ceased; leachate generation is likely to continue for over 30 years after cell closure which pushes the timeframe of this effort beyond the scope of when additional capacity is needed.

- Floodplain considerations
    - In some cases, the capacity gained from connecting two cells would be limited due to their geometries and having to avoid the 100-year floodplain.
- Federal Aviation Administration (FAA) height limitations due to the nearby Hampton Roads Executive Airport
- Structural retaining walls
    - These were considered in multiple areas to support increased waste disposal volumes by building higher instead of wider, thereby reducing the required landfill footprint and wetland impacts. A mechanically stabilized earth (MSE) retaining wall alternates layers of geosynthetic materials and soil to create a near vertical exterior wall, which is usually precast concrete panels or wire mesh. The inboard slope of the MSE wall would include an expansion of the base liner system at stable slopes.
- Permitting/design and operation
    - Approval for some alternatives and modifications to the existing leachate management system to support some alternatives is not certain.
    - MSE wall design and permitting would be complicated and regulatory approval is not certain.
    - Operation would be challenging and would increase safety risks.
- Perimeter access and waste filling
    - Access around the site perimeter would be constrained with the narrow roadway at the top of an MSE; this would complicate the process for filling landfill cells with waste.
    - Widening the perimeter road to aid in filling landfill cells would add to wetland impacts along the perimeter.
- Stormwater infrastructure
    - For alternatives that include an MSE component, stormwater runoff from existing side slopes would need to be diverted away from active filling areas below to reduce run-on and leachate production in the MSE wall area.
    - For alternatives that include an MSE component, runoff from completed side slopes would require a new perimeter channel and large vertical drain manholes through the berm to discharge collected stormwater.

Table 2 describes the design considerations that were analyzed as on-site alternatives. A summary of factors considered for each alternative is provided in the "Comments" column. A detailed On-site Alternatives Technical Memo, which provides additional clarity and detail specific to each design, is provided in Appendix B of the FEIS.

Table 2: On-site Alternatives

On-Site Alt #	Alternatives	Net Wetland Savings (AC)	Total Lined Area (AC)	Reduction Volume of Cells VIII & IX	Total Cell Expansion Disposal Volume (CY)	Comments
1	Cells VIII & IX Expansion	-	92.9	-	16,000,000	Conventional design/construction/operation, leachate pump depth manageable, coordinates w/ Cell VII operations, generates soil for operation/construction, straightforward permitting/above confining layer
2	Relocate Natural Gas Main and Overlap onto closed Cells I-IV	16.8	104.3	2,870,000	13,130,000	Timeframe associated with relocating the natural gas main, closure of active cells, and leachate cessation does not meet the Purpose and Need; requires impacts to leachate collection and maintenance and to landfill gas system operation
3	MSE Wall Around South and West Boundary of Cells V & VI	-2.0	89.1	2,200,000	13,800,000	An increase in wetland impacts, impacts to leachate and stormwater infrastructure, perimeter access and waste filling difficult, loss of operating soil for MSE wall build
4	MSE Wall and Gas Main Relocation and fill to 200 ft.	15.5	99.7	5,200,000	10,800,000	Timeframe associated with relocating the natural gas main, closure of active cells, and leachate cessation does not meet the Purpose and Need; requires impacts to leachate and stormwater infrastructure; perimeter access and waste filling difficult; loss of operating soil for MSE wall build
5	MSE Wall and Gas Main Relocation and Fill to 240 ft.	21.3	93.9	6,200,000	9,800,000	Timeframe associated with relocating the natural gas main, closure of active cells, and leachate cessation does not meet the Purpose and Need; requires impacts to leachate and stormwater infrastructure; perimeter access and waste filling difficult; loss of operating soil for MSE wall build

On-Site Alt #	Alternatives	Net Wetland Savings (AC)	Total Lined Area (AC)	Reduction Volume of Cells VIII & IX	Total Cell Expansion Disposal Volume (CY)	Comments
6	Capture Airspace Between Cell V and VII	7.72	87.3	1,520,000	14,480,000	Permitted for construction by DEQ, wetland impact reduction of 7.72 acres, impacts to Cell V leachate and landfill gas infrastructure
7	MSE Wall Around Cells V, VI, and VII	17.3	79.1	5,500,000	10,500,000	Impacts to leachate and stormwater infrastructure, complicated permitting/design and operation, impacts to Cell V leachate and landfill gas infrastructure, loss of operating soil for MSE wall build
8	Construct Cell VIII and Overlap onto Cell VII with Gas Main Relocation	62.4	84.9	9,760,000	6,240,000	Timeframe associated with relocating the natural gas main, closure of active cells, and leachate cessation does not meet the Purpose and Need; requires impacts to leachate and stormwater infrastructure; little overlap available due to floodplain; loss of operating soil for MSE wall build
9	MSE Wall Around Cells V-VII and Gas Main Relocation and Fill to 200 ft.	64.1	85.5	10,360,000	5,640,000	Timeframe associated with relocating the natural gas main, closure of active cells, and leachate cessation does not meet the Purpose and Need; MSE wall on Cell VII provides little value; requires impacts to leachate and stormwater infrastructure; loss of operating soil for MSE wall build
10	10 – 20 ft. High Soil Berm Around Cells VIII - IX	3.2	90.0	-	16,000,000	Conventional design/construction, leachate pump depth at limit of manageable, operational difficulty with safety concerns, loss of operating soil for berm build

Through the On-Site screening process, only Alternatives 1 and 6 were carried forward for additional analysis in the FEIS. The remaining on-site alternatives reviewed were determined not practicable due to operational logistics and cost.

5.1.2 Off-site Alternatives Screening Process

For the off-site alternatives analysis, the following factors were used to locate potentially suitable sites:

- At least 300 acres of contiguous undeveloped land (can consist of multiple parcels with multiple owners and should be reasonably compact);
- Within the SPSA service area;
- Within two miles of a major highway corridor (defined as Primary Roads and interstates); and
- Outside of the 100-year Floodplain.

This selection process identified 58 sites (not including the existing Regional Landfill site) to carry forward into Phase II analysis. The detailed analysis process is provided in the Off-Site Alternatives Analysis Technical Memo in Appendix A of the FEIS. The 58 sites identified were then examined for the following fatal flaws:

- Whether site was the current location of an airport or airfield;
- Site had greater than 124 acres of wetlands based on National Wetland Inventory mapping (the amount of wetlands potentially impacted by SPSA's original proposed alternative); and
- Site was bisected by a road or other linear infrastructure.

Sites that had at least one fatal flaw were removed from further analysis. This analysis resulted in 29 parcels being carried forward for further review. The 29 sites were evaluated using a system of 14 weighted criteria to rank the sites. The following 14 criteria were used for ranking the 29 sites:

- Land use compatibility
- Roadway capacity
- Natural visual screening
- Zoning consistency
- Site configuration
- Site ownership
- Sewer availability
- Wetland impacts (based on estimated total area of wetlands on-site)
- Transportation costs
- Ease of development
- Proximity to airport or airfield
- Cultural resources
- Natural resources
- Environmental justice

The six highest scoring sites (Sites SU02, SH33, SH23, SH09, SH32, and SH29) were advanced for further study. Further analysis and ranking of the six remaining sites were conducted based on site-specific operational opportunities or constraints afforded by each of them. The criteria were selected with consideration of technical landfill siting engineering and design principles. The following nine criteria were used for ranking the six sites:

- Wetland impacts (based on conceptual landfill footprint)
- Stream impacts
- Proximity to residential land uses
- Soil balance
- Leachate management
- Development flexibility
- Waste hauling
- Landowner, community, or local government concerns
- Site access

The analysis evaluated whether each of the six sites could accommodate a landfill of sufficient size to meet the proposed expansion's purpose and need (16 million CY capacity) while minimizing impacts on wetlands. Wetlands on each site were mapped using the best available mapping and data including National Wetlands Inventory (NWI), soils, aerial color infrared, true color aerial photography, and data pertaining to topography (LiDAR) survey (some limited, high-level ground-truthing was conducted for Site SU02 only; owners denied access to all other sites). Next, high-level conceptual landfill footprints were developed and overlain on each site in a manner that minimized wetland impacts. The conceptual footprints included waste disposal footprint, supporting facilities, borrow and stockpiling areas, stormwater management areas, and access roads.

Norfolk District opened an alternatives-focused scoping period from December 17, 2020, through January 18, 2021, to receive comments on the six alternative sites. The Norfolk District decided that all six identified top sites should be considered reasonable alternatives. The Norfolk District also undertook an effort to confirm the availability, and thus the practicability, of each site via property owner outreach. The Norfolk District sent two rounds of letters to property owners via certified mail to enable certified receipt. During the scoping process, all municipalities in which the top six sites were located were contacted for comment.

During public scoping, Norfolk District received information that led us to take a closer look at the wetland acreages on the SU02 site. After preliminary wetland delineation work on Site SU02, the Norfolk District determined that development of this site would result in over 164 acres of wetland impacts, which would be greater than the wetland

impacts associated with the applicant's preferred alternative. For alternatives, such SU02, that were carried forward for impact analysis pursuant to NEPA, elimination is discussed in Section 5.3.

Landowners of the other five sites in Southampton County did not grant access to their property or were non-responsive. Unwillingness to sell alone, however, does not render an alternative impractical. The guidelines state that if it "is an otherwise practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered." SPSA is a semi-governmental agency that has the authority to acquire property for public use through eminent domain. In order to construct a landfill on property acquired through eminent domain, the construction must also be consistent with local zoning ordinances and SPSA must obtain any necessary local approvals.

Construction of a landfill at any of the off-site alternatives in Southampton County would require, at a minimum, the issuance of a CUP, and for several sites, additional approvals or zoning changes would be required before a CUP could be granted. Outreach responses received from Southampton County stated that construction of a landfill at the off-site locations in question would be inconsistent with future plans and current ordinances. The Southampton County administrator noted in writing that there is a very low probability of obtaining necessary approvals at the municipal level.

Similarly, in the City of Suffolk, even if SPSA used its eminent domain authority, rezoning approval and issuance of a CUP would be required. Like Southampton County, the City of Suffolk's outreach responses state that construction of a landfill at the off-site locations in question would be inconsistent with future plans and current ordinances. The Suffolk City Manager's office has stated in writing that the City would not support development of a second landfill within its municipal boundaries. The Norfolk District has evaluated the considerable time and costs associated with SPSA's use of eminent domain authority, the lack of project support for off-site locations within the City of Suffolk and Southampton County, and the need to obtain a CUP, zoning changes, or other approvals for construction, and has determined that the off-site locations without a landowner that is willing to sell are impracticable and may therefore be eliminated from further analysis. Though SPSA could conceivably obtain off-site locations through eminent domain, these locations could not reasonably be expected to fulfill the purpose of the proposed activity without support by local government.

EPA recommended that the Norfolk District identify additional sites for consideration, by revisiting sites that were considered in the previous phase of the off-site alternatives screening process. In an effort to identify a site with fewer wetland impacts than the applicant's preferred alternative, the Norfolk District reconsidered the next 10 highest

ranked sites that received lower scores than the initial top six ranked sites. Rather than evaluate the next 10 sites using the nine criteria associated with the analysis of the top six sites, Norfolk District investigated the potential for successful site acquisition or condemnation. To understand landowner interest and willingness to potentially sell their property in support of a regional landfill expansion project, certified letters were sent in May 2022 to sites identified as SH01, SH13, SH19, SH24, IW02, SH30, SH25, SH05, SH31 and SH07, illustrated on Figure 9 in the FEIS. During this phase of alternatives analysis, 10 property owners were contacted via certified mail and only one (SH30) responded with an interest in selling. The property owner of site SH30 expressed an interest in selling and access to the property was granted, so a more comprehensive field review for aquatic resources was conducted. Site SH30 (Alternative D) was fully evaluated in the DEIS. On February 28, 2023, Southampton County passed a resolution of opposition against development of a new landfill within the boundaries of the County and authorizing the County Administrator and Attorney to do all things necessary and proper to express such opposition. The Norfolk District was made aware of the Southampton County resolution of opposition during the Ivor public meetings in June and July of 2023. SH30 (Alternative D) was determined to be not practicable due to uncertainties around receiving an exemption from the state two-acre wetland impact limit, the Southampton County resolution of opposition, the unlikelihood of receiving a Conditional Use Permit from the county (even if an exemption to state law could be obtained), and the public interest factors thus, it was dismissed from further review in the FEIS as described further in Section 5.3. The additional sites were considered in the context of Virginia law prohibiting new landfills with more than two acres of impacts, as well as opposition by local government, as explained further below.

The Norfolk District also considered Virginia law in developing alternatives. In particular, Virginia state law prohibits new sanitary landfills or expansions of existing landfills if there would be an impact of two or more acres to nontidal wetlands (see 9 VAC 20-81-120(E); VA Code § 10.1-1408.5(D)). As specified in VA Code § 10.1-1408.5(A), this prohibition does not apply to the expansion of an existing municipal solid waste landfill located in the cities of Danville, VA or Suffolk, VA “when the owner or operator of the landfill is an authority created pursuant to § 15.2-5102 that has applied for a permit under § 404 of the federal Clean Water Act prior to January 1, 1989, and the owner or operator has received a permit under § 404 of the federal Clean Water Act and the Virginia Water Resources and Wetlands Protection Program, Article 2.2 (§ 62.1-44.15:20 et seq.).” Thus, this language exempts expansion of the SPSA Regional Landfill within the City of Suffolk from the two-acre limitation on wetland impacts.

Subsection F of section § 10.1-1408.5 also provides a broader exemption: There shall be no additional exemptions granted from this section unless (i) the proponent has submitted to the Department an assessment of the potential impact to wetlands, the

need for the exemption, and the alternatives considered and (ii) the Department has made the information available for public review for at least 60 days prior to the first day of the next Regular Session of the General Assembly.

Thus, off-site alternatives with greater than two acres of wetland impacts could potentially be approved through the foregoing process. Furthermore, NEPA's implementing regulations, though no longer binding, contemplate that federal agencies may consider proposed actions that are inconsistent with state or local plans or laws, provided agencies describe the extent to which such inconsistencies would be reconciled (40 CFR § 1506.2). For these reasons, Virginia's general prohibition on development of new or expanded landfills with wetland impacts over two acres was not included as a criterion for the initial alternatives screening process; however, it was considered during the later practicability analysis.

Norfolk District reviewed 16 of the 29 off-site alternatives in closer detail to determine potential impacts to aquatic resources. A preliminary landfill design was overlain on wetland mapping based on desk-top review for the top six sites: SU02, SH33, SH23, SH09, SH32, and SH29. The next ten sites (SH01, SH13, SH19, SH24, IW02, SH30, SH25, SH05, SH31 and SH07) were reviewed for practicability through landowner willingness first. Norfolk District also completed a desk-top review of site conditions for potential wetland impacts using National Wetland Inventory Maps, Soil Surveys, USGS Topography mapping and LiDAR mapping. All of the 16 potential off-site alternatives would result in more than two acres of wetland impacts to construct a new landfill facility, with support infrastructure and required stormwater management. Many would also result in stream loss and impacts to protected species. The Norfolk District investigated the procedures for receiving an exemption under subsection F, including further engagement with VDEQ to evaluate how subsection F should be interpreted. Ultimately, the exception appears to require legislative action. The two-acre limit and exemption process, landowner willingness to sell, and locality opposition led the Norfolk District to conclude that none of the 16 off-site alternatives reviewed are practicable alternatives to the proposed action.

In response to comments received on the DEIS from the public, EPA and consulting parties, Norfolk District evaluated a hybrid alternative (Alternative E). The Hybrid Alternative is a combination of the No-Action alternative, resulting in diversion of waste from SPSA to private landfills, and the applicant's preferred alternative (Alternative C). The Hybrid alternatives were eliminated from further consideration as explained in Section 5.3.

Norfolk District carried forward the No-Action Alternative (Alternative A), and three action alternatives, Alterative B: Original Proposed Alternative; Alternative C: Proposed

Action; and Alternative E: Hybrid Alternative, for detailed analysis in the FEIS. See Chapter 2 of the FEIS for further detail on evaluation of reasonable alternatives.

5.2 Description of Alternatives

5.2.1 No-Action alternative

Under the No Action, Alternative A, SPSA would not expand its landfill operations into Cells VIII and IX and no construction requiring a Corps permit would occur (Figure 20 in the FEIS). Landfill operations would continue to utilize the currently permitted capacity available in Cell VII, which is expected to last until approximately 2037. Cell VII would be constructed according to SPSA's development plans. To retain the soil generated from the excavation of Cell VII, SPSA would transport soil by truck to an off-site stockpile area. When the soil is needed for cover on Cell VII, SPSA would transport it back from the stockpile area for its use at the site. After Cell VII reaches capacity and is closed with a final cover system, waste would be hauled to other area landfills for processing and disposal. Potential receiver facilities are listed below with the total remaining permitted capacity as of 2023 (HRPDC 2023):

- Atlantic Waste Disposal (private landfill owned by Waste Management in Waverly, Virginia); Distance from Regional Landfill: 45 miles; Total remaining permitted capacity (tons): 43,943,186; Remaining reported permitted life: 54 years
- Bethel Landfill (private landfill owned by Waste Management in Hampton, Virginia); Distance from Regional Landfill: 35 miles; Total remaining permitted capacity (tons): 21,816,740; Remaining reported permitted life: 65 years
- Brunswick Waste Management Facility (municipal landfill in Lawrenceville, Virginia); Distance from Regional Landfill: 80 miles; Total remaining permitted capacity (tons): 9,569,031; Remaining reported permitted life: 40 years

The Suffolk transfer station and maintenance facility would remain operational following Cell VII closure. Operational practices surrounding groundwater and surface water monitoring, as well as leachate and landfill gas management, would also continue following Cell VII closure. SPSA would shift its infrastructure to support waste transport to private disposal facilities and would potentially need to increase the existing transfer system network.

5.2.2 Off-site alternatives - Considered but dismissed in the FEIS

Off-site alternative 1: Site SU02 is a 546.9-acre site in Suffolk, Virginia (Figure 13 in the FEIS), located approximately 10 miles west of the existing landfill. Because of the landowner's interest in selling, access was provided to the Norfolk District team to better understand the extent of wetlands on the site. A conceptual landfill development plan was developed for Site SU02. The concept plan detailed a total of 86.1 acres needed to

develop the cell disposal footprint (which would stand 178 ft. high), with the total developed area (which includes support infrastructure) amounting to 167.2 acres (Figure 15 in the FEIS). Support infrastructure would be constructed at the new site, including facilities similar to those at the existing Regional Landfill. These may include administration and maintenance buildings, utilities (water, sewer, and power), scales, a tire shredding facility, a household hazardous waste facility, access and haul roads, leachate sewer disposal surface drainage systems, and gas management recovery systems. In addition, an access road would need to be constructed for vehicles entering the landfill from U.S. Route 58. This new road would provide the only vehicle access to the site and would transect the landfill from north to south. U.S. Route 58 would also need to be upgraded to add a left turn lane in the eastbound direction, for trucks turning into the landfill. Development of the landfill on this site would result in approximately 164.2 acres of total wetland impacts (Figure 16 in the FEIS). The conceptual design was developed with wetland avoidance as a top priority and minimization efforts were implemented to the greatest extent practicable by maximizing use of available uplands.

Off-site alternative 2: SH30 is a 330-acre site in Southampton County, Virginia (Figure 17 in the FEIS). This site was considered by the Norfolk District as Alternative D in the DEIS released in June 2023. Under this alternative, the existing Regional Landfill would have closed for landfill operations once Cell VII reached capacity (anticipated around 2037) but would have continued to operate as a transfer station for the region. During the operation of Cell VII, soil stockpiling and borrowing would be done off-site, with material trucked in and out so that Cell VIII would not be used. Following the Regional Landfill's closure, a new landfill would have been developed and operated from approximately 2037–2060 on Site SH30 (Figures 17 and 18 in the FEIS). A conceptual landfill development plan was developed for Site SH30. Of the 330 acres available on Site SH30, 85 acres would have been utilized for the cell disposal footprint (which would stand 260 ft. high), with the total developed area (which includes support infrastructure) amounting to 138 acres (Figure 19 in the FEIS). Support infrastructure would have been constructed at the new site, including facilities similar to those at the existing Regional Landfill. These may include administration and maintenance buildings, utilities (water, sewer, and power), scales, a tire shredding facility, a household hazardous waste facility, access and haul roads, leachate sewer disposal, stormwater management, and gas management recovery systems. Permitting and construction of a new landfill at SH30 would take approximately 10 years and would consist of the stages described under Alternative B, below. Operations at this new landfill would also be similar to those practices described under Alternative B. The proposed development of Site SH30 would have resulted in approximately eight acres of wetland impact. Since the placement of a landfill would have bisected the existing wetland drainage on SH30, additional wetland impacts may have been required to reroute and maintain continuity of the wetlands on the west side of the property with wetlands on the east side of the property. The

estimated wetland impacts also do not include potential wetland impacts or impacts to other WOTUS that could be required for an entrance road upgrade. The entrance to SH30 appears to be a state road; however, the property on either side of the entrance road is not under the same ownership as SH30, and that property was not reviewed for the presence of wetlands.

5.2.3 On-site alternatives

On-site alternative 1 (applicant's original proposed alternative): Under Alternative B, SPSA would expand its existing landfill operations into an expansion site, within which two new contiguous waste disposal cells (Cells VIII and IX) would be constructed over time, in phases (Figure 21 in the FEIS). Cell VIII would be constructed first, followed by Cell IX. This new expansion site would incorporate an additional 137.18 acres (identified as Cells VIII and IX, including the support areas for roadways and stormwater management) of landfill property within the active facility boundary. Alternative B would result in 117.36 acres of wetland impact. Landfill cells within this site would provide 16 million CY of new waste capacity. Existing facilities at the Regional Landfill, including administration and maintenance buildings, utilities (water, sewer, and power), scales, a tire shredding facility, a household hazardous waste facility, a methane gas recovery system, access and haul roads, leachate sewer disposal surface drainage systems, and gas management recovery systems, would continue to be used. Landfilling operations at the expansion site would begin following the end of the operational phase of Cell VII, which is anticipated to reach capacity by 2037. Thus, landfilling operations at the expansion site would be expected to occur between approximately 2036-2060.

On-site alternative 2 (applicant's preferred alternative): Under Alternative C, Cells VIII and IX would be developed as described under Alternative B; however, the airspace between Cells V and VII would also be utilized for landfilling operations (Figure 24). Infilling this airspace would secure an additional 1.52 million CY of disposal capacity, reducing the need for capacity provided by the expansion site to 14.48 million CY. Developing and utilizing this airspace would require the relocation of the pump station and underground utilities, as well as infrastructure for Cell V leachate, landfill gas, and stormwater management. Filling in this airspace, which is already permitted by VDEQ, would most likely occur following the construction and operation of Cells VIII and IX. Delaying its construction would allow the continued use of the landfill access roadway and leachate infrastructure until the disposal capacity is required to maintain landfill operations. It reduces the footprint of Cell IX by approximately 7.72 acres compared to Alternative B because the airspace provided between Cells V and VII would be utilized for landfill capacity. Wetland impacts resulting from Alternative C would total approximately 109.64 acres. Similar to Alternative B, the expansion site could be used for stockpiling and borrowing during the construction and operation of Cell VII (expected to be operational from 2027–2037) if the expansion site is permitted by the time SPSA

needs space to store the excavated material. Landfilling operations in the expansion site would begin by 2036, and the 11-acre borrow, and stormwater management area would be used for stockpiling and borrowing during the development and operation of Cell IX. Alternatively, soil borrow material may be stockpiled off-site and trucked to and from the landfill as needed.

On-site alternative 3: Under Alternative E, the new hybrid alternative would provide both a 50% and a 25% diversion scenario in which 50% and 25% of MSW, respectively, would be diverted to private area landfills and the remaining MSW would be landfilled at the Regional Landfill. To landfill the remaining 50% and 75% of waste (under the 50% and 25% diversion scenarios, respectively) that would not be diverted and would continue to need landfilling, SPSA would develop the expansion site area with a smaller footprint than Cells VIII and IX, as described under Alternative C. Similar to Alternatives B and C, the expansion area could be used for stockpiling and borrowing during the construction and operation of Cell VII (expected to be operational from 2027–2037) if it is permitted by the time SPSA needs space to store the excavated material. Operation of this new area would begin in approximately 2036, shortly before Cell VII reaches capacity in 2037. Similar to Alternative C, the airspace between Cells V and VII would also be infilled and utilized for landfilling operations, as described under Alternative C, above. Infilling this airspace would secure an additional 1.52 million CY of disposal capacity, reducing the need for capacity provided by the expansion site to 14.48 million CY. Construction and operation for the hybrid expansion area would generally follow the stages described under Alternative B in the FEIS. Under the 50% diversion scenario, the required disposal capacity would be 7.24 million CY. The expected life of a cell this size would last approximately 11 years. A cell with this capacity would require a footprint of 53.76 acres. Combined with the approximate 18 acres required for supporting infrastructure, the total wetland impact under the 50% diversion scenario would be 71.76 acres. Under the 25% diversion scenario, the required cell disposal capacity would be 10.86 million CY, which would be expected to have a 16.5-year lifespan. The required footprint for a cell this size would be 72.85 acres. Combined with an approximate 24 acres required for supporting infrastructure, the total wetland impact under the 25% diversion scenario would be 96.85 acres. Under Alternative E, operations would continue until the reduced expansion area was filled to capacity. Following this, under the 50% diversion scenario, the landfill would close in approximately 2047. Under the 25% diversion scenario, the landfill would close in approximately 2052. Once the landfill closed, SPSA would begin hauling the remainder of waste to a private landfill.

5.2.4 Alternative Technologies - Considered but Dismissed in the FEIS

Alternative waste management technologies will continue in operation and are supplemental to landfilling. They cannot, however, either alone or in combination with

one another, meet the project Purpose and Need as standalone alternatives because they do not provide 16 million CY of waste disposal capacity. Therefore, disposal capacity is a necessary component of waste management planning. SPSA plans to work with a selected vendor that will provide alternate technologies to reduce the amount of waste to be disposed. This is an on-going process that will take some time before the full benefits of waste reduction are realized.

Source Reduction, Materials Reuse, Recycling, and Composting: In December 2023, SPSA started a pilot program that sorts 40,000 tons of municipal solid waste annually. Artificial Intelligence (AI) and robotics are used to increase efficiency and increase productivity. This pilot will be used to determine the future potential for this technology. Another method for source reduction is diverting food waste from the waste stream. Composting is also a useful alternative for managing yard and food waste and turning them into useful products. The vendors being considered by SPSA included an organics component in their proposals.

Resource recovery (including waste incineration): With the closure of Wheelabrator in 2024 (as described above under “Project Background” of the FEIS), SPSA considered the option of buying the Wheelabrator plant back or potentially building a new waste-to-energy (WTE) facility that it could operate. Ultimately, SPSA concluded that this approach is not a practicable alternative for several reasons. The Wheelabrator plant itself has been in operation since 1988 and much of the equipment in the facility is nearing the end of its useful life. The reliability of the equipment has dramatically decreased in recent years, while capital costs and expenses to maintain the equipment have sharply increased. A fire at the Wheelabrator plant occurred in December 2022 and despite repairs, the plant subsequently operated at a reduced capacity. Furthermore, the technology employed by Wheelabrator to turn refuse into fuel is not used in new WTE plants; rather, new plants utilize mass burn technology which is more cost efficient to operate and more reliable. In addition, building and operating a new WTE plant is cost prohibitive as the financial strategies previously used to operate the Wheelabrator plant are no longer available. Specifically, the Power Purchase Agreement (PPA) with Dominion Power, which helped secure the lucrative sale of electricity, has since ended. Although electricity is still sold to the grid, it is sold at market price which is now much lower per kilowatt hour than it was under the PPA. Considering lower electricity sales, along with the large amount of capital needed to upgrade the existing facility, SPSA assuming and operating the plant would result in over $14 million dollars in increased tipping fees per year across the region (SPSA 2022c). Anticipated cost to construct a new WTE facility in the region in 2024 is approximated between $550 million and $600 million, based on a facility sized to handle 460,000 tons of waste per year, and does not include land purchase and environmental permitting. This cost, combined with the uncertainty over environmental and health impacts, lack of a viable

steam off-taker, and the low revenue resulting from the sale of electricity indicates that this alternative technology is not a reasonable disposal option for SPSA to pursue. Chapter 2 of the FEIS provides additional details.

5.3 Alternatives Evaluation Under the Section 404(b)(1) Guidelines and NEPA

5.3.1 No-Action Alternative

The No-Action Alternative (Alternative A) would require SPSA to haul waste to private, for-profit landfills. Pursuant to the No-Action alternatives, SPSA would transition to a hauling operation when existing capacity is exhausted. From a cost standpoint, for waste disposal at private landfills, market conditions are highly variable and would be dependent on future available capacity. Norfolk District's independent evaluations, which are detailed in Appendix D of the FEIS, were calculated using average tipping fees in Virginia. The No-Action Alternative A would cost approximately $361 million more than the applicant's preferred Alternative C, a 53% increase in cost. Thus, based on costs alone, the Norfolk District concludes that the No-Action Alternative is not practicable.

In evaluating whether the No-Action Alternative is capable of being implemented considering logistics, existing and future constraints must be taken into account. Projections from the current RSWMP indicate that landfill capacity is currently available at private landfills in the area. Based on data from the Virginia Department of Environmental Quality, the amount of MSW received in Virginia from in-state and out-of-state sources has generally risen over the last 10 years; however, the tons of disposal capacity available within MSW landfills has decreased over time (VDEQ 2024a, 2023, 2022 and 2021 Annual Solid Waste Reports CY2023, CY 2022, CY2021, and CY2020). The availability of disposal capacity at the private landfills considered under the No-Action Alternative would not be guaranteed in the future. And, unlike Alternatives B and C (which are within SPSA's authority), the existence of necessary capacity would be outside SPSA's control.

Since publication of the DEIS, one of the sites considered for disposal under the No-Action Alternative (Alternative A), Shoosmith Landfill, has stopped accepting waste and is no longer pursuing a landfill expansion. Another site considered, the Bethel Landfill, has restrictions on the type and amount of waste that can be directed to the facility. The original lease agreement from 1986 for the Bethel Landfill specifies that the landfill may not accept residential refuse from other municipalities without prior approval from the City of Hampton. The agreement or subsequent agreements allow for disposal of waste from within the Virginia Peninsula Solid Waste Public Service Authority, which includes the cities of Hampton, Poquoson, and Williamsburg, and the counties of Essex, James City, King and Queen, King William, Mathews, Middlesex, and York (VPPSA Solid

Waste Management Plan 2021). SPSA is currently allowed to haul a limited amount of commercial waste to the Bethel Landfill, but the amount cannot exceed the tons of commercial waste that are received at SPSA's transfer stations. Disposal at the Bethel Landfill is not an option to reduce the need for residential waste disposal capacity, since SPSA is not authorized to dispose residential waste at that facility. However, use of the Bethel Landfill does help SPSA dispose of commercial waste that is received at the SPSA transfer stations. Atlantic Waste Landfill, another potential site, is currently one of the designated disposal sites for New York City through a 20-year contract, which has two five-year renewal options. According to the Certification for Disposal Capacity, Waste Management (owner of Atlantic Waste Landfill) has a requirement to maintain primary disposal capacity and reserve disposal capacity at the Atlantic Waste Landfill for the City of New York Department of Sanitation (City of New York Department of Sanitation, Appendix E-WMNY Certification of Disposal Capacity Southwest Brooklyn Marine Transfer Station dated June 2018). This agreement does not preclude SPSA from using Atlantic Waste, but it does add some uncertainty to the future available disposal capacity at the facility. Finally, the Brunswick Waste Facility does not appear to have any known restrictions for disposal; however, SPSA has not utilized this landfill in the past due to the distance and cost of hauling and Brunswick County relies on the facility for disposal of its MSW.

Another logistical issue to consider is safety for long-distance hauling of MSW outside the SPSA service region. Members of the public commented on potential safety concerns over long-distance hauling of municipal waste, especially on Route 460, which would be the route used to transfer MSW to the Atlantic Waste Landfill. The public may have similar safety concerns about long-distance hauling of MSW on Route 58 to the Brunswick Waste Facility or the Hampton Roads Bridge Tunnel, the Monitor Merrimac Bridge Tunnel, and the James River Bridge, which would be utilized for hauling to Bethel Landfill.

Relying solely on private landfills to meet the need for 16 million cubic yards of MSW disposal capacity is not practicable on the basis of costs alone, and the uncertainty of future capacity further supports this finding.

5.3.2 Off-site Alternatives

Off-site alternative 1 SU02: Development of the landfill on this site would result in approximately 164.2 acres of total wetland impacts (Figure 16). The conceptual design was developed with wetland avoidance as a top priority and minimization efforts were implemented to the greatest extent practicable by maximizing use of available uplands. The conceptual development plan for Site SU02 would result in greater wetland impacts than that of the applicant’s preferred alternative and is a factor in its consideration for dismissal. Additionally, the Suffolk City Manager’s office has stated in writing that the

city would not support development of a second landfill within its municipal boundaries. These were considerations factored into the dismissal of SU02 from further analysis.

Off-Site alternative 2 SH30 (Alternative D): As discussed earlier in this chapter, the wetland impacts at SH30 would have been inconsistent with title 9, section 20-81-120 of the Virginia Administrative Code and section 10.1-1408.5 of the Code of Virginia, which prohibits new sanitary landfills or expansions of existing landfills with greater than two acres of wetland impact. The Office of the Attorney General for the Commonwealth of Virginia issued an advisory opinion concerning Section 10.1-1408.5 on September 20, 2021, concluding that its language "prohibits the siting of a landfill in wetlands that impacts two or more acres unless the landfill is covered by a special exemption in subsections (A)(i) or (A)(ii)." Due to the possibility of utilizing the exemption outlined in subsection F of Virginia statute § 10.1- 1408.5, and because NEPA permits consideration of proposed actions that may be inconsistent with state or local plans or laws, the Norfolk District decided to carry this alternative through the NEPA process for further review. The Norfolk District investigated the procedures for receiving an exemption under subsection F, including further engagement with VDEQ to evaluate how subsection F should be interpreted. Ultimately, the exception appears to require legislative action.

Local land use regulations and plans also preclude the development of SH30. According to correspondence received from the Southampton County Planning Director, development of a landfill at Site SH30 is "…generally inconsistent with the county's future plans and current ordinances." (from letter to the Norfolk District dated July 5, 2022). Specifically, the county's Comprehensive Plan designates Site SH30 as "Industrial" and "places a strong emphasis on job creation in areas noted as Industrial." Also, Site SH30 "has a zoning designation of A-1, Agricultural, district. Within the County's current zoning regulations, sanitary landfills in the A-1 zoning designation require approval of a Conditional Use Permit by the Board of Supervisors after review and recommendation from the Planning Commission." (from letter to the Norfolk District dated July 5, 2022). Subsequent to publication of the DEIS, during the public information meeting in June 2023, the Norfolk District was made aware that the Board of Supervisors of Southampton County had passed an ordinance in opposition of SPSA's landfill construction within the county. A copy of the ordinance was provided to the Norfolk District on June 23, 2023.

Following public review of the DEIS during summer 2023, the Norfolk District considered comments received regarding SH30 (see Appendix J for the DEIS Comment Response Summary), including comments related to the primary public interest factors. Per 33 CFR Part 325, Appendix B, the Norfolk District must consider an objective evaluation of the public interest in its decision. Top public interest concerns about SH30 related to traffic safety along Route 460 (including emergency medical service access

and capacity), potential impacts to private wells, local water sources, local communities, and potential archaeological resources.

The Norfolk District applied a multi-layered approach to its review of alternatives, including the review of SH30. Based on the uncertainties around receiving an exemption from the state two-acre wetland impact limit, the Southampton County resolution of opposition, the unlikelihood of receiving a Conditional Use Permit from the county (even if an exemption to state law could be obtained), and the public interest factors discussed above, the Norfolk District has determined that SH30 is not a practicable alternative and therefore it has been dismissed from further consideration.

5.3.3 On-site Alternatives

On-site alternative 1 (applicant's original proposed alternative) Alternative B: The applicant's original proposal, Alternative B, would result in 117.36 acres of wetland impact and temporary impacts to 0.06 acres of ditch. Landfill cells within this site would provide 16 million CY of new waste capacity. This alternative meets the project purpose and need and would be a practicable alternative.

On-site alternative 2 (applicant's preferred alternative) Alternative C: The applicant's preferred alternative, Alternative C, would result in 109.64 acres of wetland impacts and temporary impacts to 0.06 acres of ditch. Under Alternative B, the airspace between Cells V and VII would also be utilized for landfilling operations, which would result in an additional 1.52 million CY of disposal capacity, reducing the need for capacity provided by the expansion site to 14.48 million CY. This combination would provide 16 million CY of new waste capacity. This alternative meets the project purpose and need and would be a practicable alternative.

On-site alternative 3 Alternative E: The Hybrid, Alternative E, would require SPSA to haul waste to private, for-profit landfills after capacity was reached at a reduced landfill footprint within the proposed expansion area. Under the Hybrid Alternative scenarios, SPSA would transition to a hauling operation when existing and the added capacity is exhausted. The Hybrid 50 Alternative E would on average cost $201 million more than the applicant's preferred, a 30% increase in cost and the Hybrid 25 Alternative E would on average cost $120 million more than the applicant's preferred alternative, a 17% increase in cost. Thus, based on costs alone, the Hybrid Alternative is not practicable. Relying solely on private landfills to meet the need for the reduced capacity under the Hybrid Alternative is not practicable on the basis of costs alone, and the uncertainty of future capacity further supports this finding, as discussed above under the No-Action Alternative.

Table 3 provides a summary of the alternatives carried forward for further review in the FEIS.

Table 3: Alternatives Summary Table

Alternative	On-site Capacity (CY)	Off-site Hauled Capacity (CY)	Cell Footprint (AC)	Support Area Footprint (AC)	Total Wetland Impact (AC)	Years of Landfill Life (Approximate)	Years of Hauling (Approximate)	Greenhouse Gas Emissions (MT CO_2E)	Average Operational and Capital Cost ($ millions)
Alternative A	0	16,000,000	0	0	0	0	24	1,618,254	$1,046,596,933
Alternative B	16,000,000	0	91.60	25.76	117.36	24	0	1,295,696	$686,644,600
Alternative C	16,000,000*	0	84.28	25.36	109.64	24	0	1,293,436	$686,026,600
Alternative E: Hybrid 50%	7,240,000*	8,760,000	53.76	18.00	71.76	11	13.4	1,532,475	$772,723,600
Alternative E: Hybrid 25%	10,860,000*	5,140,000	72.85	24.00	96.85	16.5	7.9	1,450,446	$805,928,000

- *Includes 1.52 million CY or airspace between Cells V and VII.

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5.4 Least Environmentally Damaging Practicable Alternative (LEDPA) Under the Section 404(b)(1) Guidelines

Through analysis in the FEIS, the Norfolk District has determined that the No-Action Alternative A, the Hybrid Alternative E, and none of the Off-site alternatives are practicable. Both on-site alternatives, B and C, meet the Purpose and Need and are practicable. Alternative B would impact more wetlands and would not have any other project benefits. Therefore, the least environmentally damaging practicable alternative under the Section 404(b)(1) Guidelines is the applicant's preferred alternative, Alterative C, utilizing the space between Cells V and VII and expanding the Regional Landfill into Cells VIII and IX, impacting 109.64 acres of wetlands and temporary impacts to 0.06 acres of ditch, as shown on the drawings entitled "SPSA Cells VIII and IX Subgrade Plan" dated January 9, 2024, by HDR.

6.0 Evaluation for Compliance with the Section 404(b)(1) Guidelines

The following sequence of evaluation is consistent with 40 CFR § 230.5.

6.1 Practicable alternatives

Practicable alternatives to the proposed discharge consistent with 40 CFR § 230.5(c) are evaluated in Section 5.

The following statements summarize the analysis of alternatives:

- Based on the analysis in Section 5 above, the no-action alternative, which would not involve discharge into waters of the United States, is not practicable.
- For those projects that would discharge into a special aquatic site and are not water dependent, the applicant has demonstrated there are no practicable alternatives that do not involve special aquatic sites.
- It has been determined that there are no alternatives to the proposed discharge that would be less environmentally damaging (Subpart B, 40 CFR § 230.10(a)).
- The proposed discharge in this evaluation is the practicable alternative with the least adverse impact on the aquatic ecosystem, and it does not have other significant environmental consequences.

The Norfolk District has completed an extensive review of a reasonable range of alternatives through the EIS process. Norfolk District considered agency comments, comments from the public and Tribal Nations, and multiple other factors during the practicability analysis.

6.2 Candidate disposal site delineation (Subpart B, 40 CFR § 230.11(f))

Each disposal site shall be specified through the application of these Section 404(b)(1) Guidelines:

The disposal site will be limited to the fill footprint within the Limits of Disturbance (LOD) shown on the permit drawings. The mixing zone during construction will be confined to the smallest practicable area by using best management practices for erosion and sediment controls. The fill areas will be cleared and grubbed, and then protected with erosion and sediment controls, so that the fill dispersion will be minimal. SPSA would initiate dewatering of the site, followed by clearing and grubbing within the expansion site waste limits and areas to be used for access roads and stormwater control features. Dewatering through drainage ditches, sumps, and pumps will be conducted to draw down the groundwater to a level sufficient for clearing and grubbing activities and stockpiling of excavated material from Cell VII. Excavation will consist of the removal and disposal of materials located on-site, including the cutting and shaping of slopes necessary for the preparation of roadbeds and landfill subgrades, removal of root mat, ditch cutting, sediment basin installation, and other related work. Cell VIII will be developed as an inward gradient landfill, with the facility bottom below the water table. The cell will be developed with a double composite liner system, with leachate collection and a groundwater dewatering system. The floor would be graded to direct any generated leachate toward the leachate collection system(s).

6.3 Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C 40 CFR §230.20 - 40 CFR § 230.25)

This section discusses the potential impacts from the Project on physical and chemical characteristics of the aquatic ecosystem listed in Table 4. Information regarding chemical and physical characteristics can be found in Chapters 2 and 3 of the FEIS.

Table 4. Potential Impacts on Physical and Chemical Characteristics

Physical and Chemical Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Moderate Effect (Long Term)	Major Effect
Substrate					X	
Suspended particulates/turbidity				X		
Water					X	
Current patterns and water circulation					X	
Normal water fluctuations		X				
Salinity gradients	X					

Discussion:

Substrate: The project site contains approximately 133.79 acres of wetlands and 0.93 acres of open water ditch. The project will permanently impact 109.64 acres of jurisdictional wetlands and temporarily impact 0.06 acres of ditch. The wetland surface within the excavated and fill area will be permanently lost. Functions, including groundwater recharge and nutrient cycling within the fill footprint will be lost. The wetland functions that are lost will be compensated through the purchase of mitigation bank credits and the preservation of 629.67 acres of wetlands, including approximately 23.81 acres of the wetlands within the project site that will be avoided.

Suspended particulates/turbidity: The expansion area will be cleared and grubbed, dewatering of the area will occur and then excavation. Effects will be minimized by strict adherence to erosion and sediment controls.

Water: The change in land use from a high-water-table forested wetland with poor to very poor drainage to a landfill would affect the immediate surface hydrology. Long-term adverse effects of this projected increase in runoff are expected to be offset by the design and implementation of stormwater management facilities, which would include a treatment train of perimeter ditches and traditional stormwater ponds that must comply with state regulations for water quality and quantity. An adverse impact is anticipated as a result of the permanent conversion of an existing forested wetland system to a capped landfill system which would reduce infiltration and nutrient uptake. On-site stormwater management is designed to capture sediment laden runoff during construction and operation to meet water quality standards through reduction in phosphorous and nitrogen. Water quantity is managed to ensure discharges to downstream receiving waters are non-erosive. Stormwater capture and detainment allows sediment to settle prior to discharging to downstream receiving waters.

Normal water fluctuations: This discharge will not affect tidal or daily fluctuations and impacts to surface flow will be negligible. The project will not have any impact on normal water fluctuations of any nearby water bodies.

Salinity gradients: The project is occurring in non-tidal wetlands, and there will be no effect on salinity.

6.4 Potential Impacts on the Living Communities or Human Uses (Subparts D, E and F)

6.4.1 Potential impacts on the biological characteristics of the aquatic ecosystem (Subpart D 40 CFR § 230.30)

Additional information regarding potential impacts on the biological characteristics of the aquatic ecosystem summarized in Table 5 can be found in Chapters 3 and 4 of the FEIS. The following has been considered in evaluating the potential impacts on biological characteristics (see Table 5):

Table 5. Potential Impacts on Biological Characteristics

Biological Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Moderate Effect (Long Term)	Major Effect
Threatened and endangered species				X		
Fish, crustaceans, mollusks, and other aquatic organisms				X		
Other wildlife					X	

Discussion:

Threatened and endangered species: Potential impacts to federally listed endangered bat species were coordinated with the FWS. Impacts to protected bast would be minimized with work time of year restrictions prescribed by FWS. SPSA proposes mitigation for potential impacts to the state listed Canebrake Rattlesnake. See Section 11.1 of the ROD and Chapter 4 of the FEIS for additional information.

Fish, crustaceans, mollusk, and other aquatic organisms: The impacted wetlands are primarily a groundwater driven system. The ditches onsite can also provide some small fish and shellfish habitat. However, the wetland itself is seasonally inundated and the pools that form when the wetland floods are shallow. Therefore, minimal habitat for fish and shellfish is present. Approximately 0.93 acres of ditch are present onsite and only 0.06 acres will be temporarily impacts for construction of two bridges to access the site. The ditches will continue to provide minimal habitat for small fish and crayfish.

Other wildlife: A list of wildlife species that may be present onsite is included in Chapter 3 of the FEIS. Small mammals, deer, turtles, snakes, amphibians, and birds may be

affected by the proposed project and would be adversely affected by the loss of 111.61 acres of habitat (109.64 acres of wetlands and 1.97 acres of upland). The small mammals, turtles, snakes, amphibians and bird nests will be directly impacted by the action, since they are less mobile. The preservation areas and avoided wetlands on the project site will be available for foraging and nesting habitat for the species that are more mobile.

6.4.2 Potential impacts on special aquatic sites (Subpart E 40 CFR § 230.40)

The following has been considered in evaluating the potential impacts on special aquatic sites (see Table 6):

Table 6. Potential Impacts on Special Aquatic Species

Special Aquatic Sites	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Moderate Effect (Long Term)	Major Effect
Sanctuaries and refuges		X				
Wetlands					X	
Mud flats	X					
Vegetated shallows	X					
Coral reefs	X					
Riffle pool complexes	X					

Discussion:

Sanctuaries and refuges: The Great Dismal Swamp National Wildlife Refuge (NWR) is situated just south of the project site. Development of the expansion area is not anticipated to adversely affect groundwater in the Great Dismal Swamp NWR or penetrate the deeper principal aquifers. The project is not anticipated to have any direct or indirect impacts on the NWR.

Wetlands: The project will permanently impact 109.64 acres of non-tidal, forested wetlands. This will affect groundwater recharge, nutrient uptake, and biological productivity of these areas; however, the long-term impacts will be partially offset through the purchase of wetland credits at a mitigation bank and through preservation of 629.67 acres of wetlands, including the cypress swamp surrounding the portion of Burnetts Mill Creek that is located on SPSA's property.

Mudflats, vegetated shallows, coral reefs, and riffle pool complexes are not present in the project limits.

6.4.3 Potential impacts on human use characteristics (Subpart F 40 CFR § 230.50)

The following has been considered in evaluating the potential impacts on human use characteristics (see Table 7):

Table 7. Potential Effects on Human Use Characteristics

Human Use Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Municipal and private water supplies		X				
Recreational and commercial fisheries		X				
Water-related recreation		X				
Aesthetics			X			
Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves		X				

Discussion:

Municipal and private water supplies: SPSA collects groundwater samples for quarterly analysis from 25 monitoring wells and 14 surface water sites. No substantial increases above background levels have been observed to indicate landfilling practices have negatively impacted groundwater. No adverse effects to public or private water supply wells are anticipated.

Recreational fisheries: This project is not located within a recreational fishing area. The project is located in wetlands which are headwaters to Burnetts Mill Creek. Sediment should be controlled onsite with erosion and sediment controls. Stormwater will be treated as it is directed towards the stormwater management facilities. No impacts to recreational fisheries are anticipated.

Water-related recreation: The proposed project in not within an area that will have any effects on recreational boating, fishing, swimming or other water-related recreation.

Aesthetics: The site is currently forested. It is surrounded by the existing Regional Landfill, and future preservation areas. The proposed expansion area is not visible from existing subdivisions or areas routinely accessed by the public, unless they are visiting the landfill.

Parks, national and historic monuments, national seashores, wilderness areas, research sites, and similar preserves: The project site is located north of the Great Dismal

Swamp National Natural Landmark (NNL). Development of the expansion area is not anticipated to adversely affect groundwater in the Great Dismal Swamp NNL or penetrate the deeper principal aquifers. The project is not anticipated to have any direct or indirect impacts on the NNL. No other sites are present within the area.

6.5 Pre-testing evaluation (Subpart G, 40 CFR § 230.60)

The following has been considered in evaluating the biological availability of possible contaminants in dredged or fill material (see Table 8):

Table 8. Possible Contaminants in Dredged/Fill Material

Physical substrate characteristics	X
Hydrography in relation to known or anticipated sources of contaminants	X
Results from previous testing of the material or similar material in the vicinity of the project	X
Known, significant sources of persistent pesticides from land runoff or percolation	X
Spill records for petroleum products or designated hazardous substances (Section 311 of the Clean Water Act)	X
Other public records or significant introduction of contaminants from industries, municipalities, or other sources	X
Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities	X

Discussion: Through the EIS process, the Norfolk District has completed a thorough review of the expansion site. The site will be cleared and grubbed and excavated. Cells VIII and IX will be developed as an inward gradient landfill, with the facility bottom below the water table. The cell will be developed with a double composite liner system, and leachate collection and a groundwater dewatering system. The floor will be graded to direct any generated leachate toward the leachate collection systems. Material from the excavation will be stockpiled and used as daily cover though a good soil management process. Municipal solid waste will not be in contact with the exposed ground surface within the landfill cell and leachate will be collected and treated.

It has been determined that testing is not required because the discharge and extraction sites are adjacent, subject to the same sources of contaminants and have substantially similar materials.

6.6 Evaluation and testing (Subpart G, 40 CFR § 230.61)

Discussion: The site will be graded and excavated. Any fill material will originate from on-site lands, and there is no reason to believe it is a carrier of contaminants (Subpart

Gin 40 CFR § 230.61). The site will contain a double composite liner system to prevent contamination of underlying materials.

6.7 Actions to minimize adverse impacts (Subpart H)

The following actions, as appropriate, have been taken through application of 40 CFR §§ 230.70-230.77 to ensure no more than minimal adverse effects of the proposed discharge (see Table 9):

Table 9. Actions to Minimize Adverse Effects

Actions concerning the location of the discharge	X
Actions concerning the material to be discharged	X
Actions controlling the material after discharge	X
Actions affecting the method of dispersion	X
Actions related to technology	X
Actions affecting plant and animal populations	X
Actions affecting human use	X
Other actions	

Discussion:

Actions concerning the location of the discharge: The applicant has avoided approximately 23.81 acres of wetlands onsite and has minimized the wetland impacts and floodplain impacts by shifting the landfill footprint. The discharge of fill material will be limited to the 111.61-acre LOD for the project.

Actions concerning the material to be discharged: Material from onsite will be redeposited through clearing, grading, excavation, and stockpiling.

Actions controlling the material after discharge: Erosion and sediment controls are required both by the Corps permit and Virginia stormwater regulations. These controls should limit the amount of sediment that will run off the site. Fill and excavated areas will be stabilized during construction. The landfill will be lined with a double composite liner to prevent interaction between MSW and the substrate below.

Actions affecting the method of dispersion: Erosion and sediment controls should serve to limit the dispersion of fill material.

Actions affecting plant and animal populations: Approximately 23.81 acres of the project site will not be developed and will be preserved as canebrake rattlesnake mitigation. An additional 89.08 acres of canebrake habitat will be preserved for a total of 112.89 acres. Another 629.67 acres of mostly forested wetlands will be preserved, including the

standing timber that could have been logged in the future. These areas will provide habitat for animals and birds that leave the project site.

Actions affecting human use: Norfolk District worked with the applicant and the Nansemond Indian Nation to mitigate for the adverse impacts to the Traditional Cultural Place that has been identified within the project site.

The FEIS contains a detailed discussion regarding the minimization of adverse effects in Chapters 2 and 3. The location of the Project has been evaluated and minimized to the furthest extent practicable through review and analysis of a full range of alternatives.

6.8 Factual Determinations (Subpart B, 40 CFR § 230.11)

The determinations in Table 10 are made based on the applicable information in the FEIS, including actions to minimize effects and consideration for contaminants (see Table 10):

Table 10. Factual Determinations of Potential Effects

Site	N/A	No Effect	Negligible Effect	Moderate Effect (Short Term)	Moderate Effect (Long Term)	Major Effect
Physical substrate					X	
Water circulation, fluctuation and salinity		X				
Suspended particulates/turbidity				X		
Contaminants		X				
Aquatic ecosystem and organisms					X	
Proposed disposal site					X	
Cumulative effects on the aquatic ecosystem					X	
Secondary effects on the aquatic ecosystem					X	

Discussion:

Physical substrate: The substrate of the wetlands will be changed by clearing and grubbing and by the construction of the landfill with the double composite liner. This will affect groundwater recharge, nutrient uptake, and localized runoff.

Water circulation, fluctuation, and salinity: The fill is being placed in a non-tidal wetland. The fill will not affect circulation, fluctuation, or salinity in adjacent undisturbed wetlands.

Suspended particulates/turbidity: Erosion and sediment controls will be utilized on the site to control suspended particulates and impacts to downstream waters.

Contaminants: The fill will be redeposited from onsite, and there is a very low probability that the material would be contaminated.

Aquatic ecosystem and organisms: Within this seasonally saturated wetland, aquatic organisms are probably limited to crayfish, salamanders, frogs, and turtles and other animals that depend on wet conditions for part of their life cycles. The fill area will no longer provide habitat for these types of organisms. However, the remaining wetlands and ditches on the property will provide suitable habitat. The constructed stormwater ponds will also provide some habitat for aquatic organisms.

Proposed disposal site: The disposal site consists of the limits of disturbance onsite, which includes 109.64 acres of wetlands, 0.06 acres of ditch and 1.97 acres of upland. Oner the life of the project, the entire disposal area will be cleared, grubbed, excavated and filled with municipal waste for a complete change in use.

Cumulative effects on the aquatic ecosystem: As other wetlands in the project vicinity are impacted, foreseeable effects would be the loss of aquatic habitat, fragmentation of larger wetlands due to land clearing and dewatering, and the loss of wetland functions including groundwater recharge and nutrient uptake, and flood storage retention. Cumulative impacts to the aquatic resources are reduced and minimized through mitigation in a collective area, through mitigation banks. The past impacts for the Regional Landfill were mitigated onsite through preservation and wetland enhancement. For this project, the wetland functions that are lost will be compensated through the purchase of mitigation bank credits and the preservation of 629.67 acres of mostly forested wetlands, including approximately 23.81 acres of the wetlands within the project site that will be avoided. Cumulative impacts are discussed further in Chapter 3 of the FEIS.

Secondary effects on the aquatic ecosystem: Potential secondary impacts that have been considered include leachate and runoff from the landfill into waters of the U.S., groundwater contamination, and stormwater overflow. SPSA employs leachate controls and detection systems to prevent secondary impacts. SPSA monitors for potential groundwater contamination and has plans in place for large storm events. Chapter 3 of the FEIS provides additional analysis.

6.9 Findings of Compliance or Non-compliance With the Restrictions on Discharges (40 CFR §§ 230.10(a-d) and 230.12)

Based on the information above, including the factual determinations, the proposed discharge has been evaluated to determine whether any of the restrictions on discharge would occur (see Table 11). The applicable subjects in Table 11 have been identified

and addressed through the EIS process; the DEQ water Quality certification; and coordination with state and federal agencies.

Table 11. Compliance with Restrictions on Discharge

Subject	Yes	No
1. Is there a practicable alternative to the proposed discharge that would be less damaging to the environment (any alternative with less aquatic resource effects, or an alternative with more aquatic resource effects that avoids other significant adverse environmental consequences?) This has been addressed above in Section 6.1 but is reiterated here because this is the first restriction.		X
2. Will the discharge cause or contribute to violations of any applicable water quality standards?		X
3. Will the discharge violate any toxic effluent standards (under Section 307 of the Clean Water Act)?		X
4. Will the discharge jeopardize the continued existence of endangered or threatened species or their critical habitat?		X
5. Will the discharge violate standards set by the Department of Commerce to protect marine sanctuaries?		X
6. Will the discharge cause or contribute to significant degradation of waters of the United States? Reference Section 6.3 above		X
7. Have all appropriate and practicable steps (Subpart H, 40 CFR 230.70) been taken to minimize the potential adverse impacts of the discharge on the aquatic ecosystem?	X	

7.0 General Public Interest Review (33 CFR § 320.4 and Regulatory Guidance Letter 84-09)

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest as stated at 33 CFR § 320.4(a). To the extent appropriate, the public interest review below also includes consideration of additional policies as described in 33 CFR § 320.4(b) through (r). The benefits which reasonably may be expected to accrue from the proposal are balanced against its reasonably foreseeable detriments.

7.1 Public interest factors review

All public interest factors have been reviewed and those that are relevant to the proposal are considered and discussed in additional detail (see Table 12):

Table 12. Public Interest Factors

Factor	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	Not Applicable
1. Conservation: SPSA proposes the conservation of 742.56 acre of primarily forested wetland habitat within the sub watershed (020802080105- Nansemond River-Cedar Lake), with 629.67 acres sanctioned for wetland compensatory mitigation, and 112.89 acres partitioned for Canebrake rattlesnake habitat. For additional detail refer to the FEIS Chapter 2, Subsection: Project Specific Mitigation Options and Appendix G.					X	
2. Economics: According to 33 CFR § 320.4(q), "when private enterprise makes application for a permit, the Corps will generally assume the appropriate economic evaluations have been completed, the proposal is economically viable and is needed in the marketplace. However, the district engineer in appropriate cases, may make an independent review of the need for the project from the perspective of the overall public interest. The economic benefits of many projects are important to the local community and contribute to needed improvements in the local economic base, affecting such factors as employment, tax revenues, community cohesion, community services, and property values." Norfolk District has independently evaluated the need for the project as described in Chapter 1, Subsection: Purpose of and Need for Action. The applicant's preferred alternative will have the least cost, which is passed on to the public in the member communities.					X	
3. Aesthetics: The site is currently forested. It is surrounded by the existing Regional Landfill, and future preservation areas. The proposed expansion area is not visible from existing subdivisions or areas routinely accessed by the public, unless they are visiting the landfill.				X		
4. General Environmental Concerns: The No-Action Alternative is the environmentally preferred alternative as it would have the least impact on wetlands and Tribal concerns. However, the applicant's preferred alternative will have the least amount of greenhouse gas emission impacts as compared to all alternatives, due to less hauling of waste and the existing controls on landfill gas emissions at the Regional Landfill. Additional detail is present in the FEIS at Table 5 and Chapter 3, Subsection: Socioeconomics.			X			
5. Wetlands: The applicant's preferred alternative will impact 109.64 acres of wetlands. The applicant's compensatory mitigation plan includes the purchase of 159 mitigation bank credits and preservation of 629.67 acres of mostly forested wetlands. SPSA's mitigation plan is described in Chapter 2, Subsection: Project Specific Mitigation Options and is attached as Appendix G.			X			

Factor	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	Not Applicable
6. Historic Properties: Through the Section 106 consultation process, the Norfolk District determined that there would be an adverse effect on the Mawinsowa Swamp TCP as a result of this project, which was concurred with by the State Historic Preservation Officer on October 24, 2024, and by the Nansemond Indian Nation on September 23, 2024. An MOA addressing adverse impacts and mitigation for the TCP was signed by all parties on June 13, 2025, finalizing Section 106. See "Chapter 4: Consultation and Coordination" for additional information regarding the findings of the Section 106 process, including consultation with Tribal Nations.			X			
7. Fish and Wildlife Values: The applicant's preferred alternative will impact permanently 109.64 acres of wetlands and 1.97 acres of upland, which is habitat for wildlife. The tree clearing and site grading will directly impact species that are not mobile. Time of year restrictions on work will help minimize impacts to bats and some birds. The impacts will be mitigated through the preservation of 742.56 acre of primarily forested wetland habitat. The preservation will prevent any future impacts in these areas, including timbering operations. Wildlife resources are analyzed in Chapter 3, Subsection: Biological Resources and Chapter 2, Subsection: Project-Specific Mitigation Options.			X			
8. Flood Hazards: Given the landscape position of the project site in relation to the contributing watershed it is unlikely that the flood elevation of 21 feet is going to rise appreciably within the projected SPSA Regional Landfill life expectancy. Additional detail is available in Chapter 3, Subsection: Floodplains.				X		
9. Floodplain Values: Under the applicant's preferred alternative, long-term adverse effects to the base flood elevation are not anticipated. Approximately 0.11 acres of floodplain are anticipated to be affected by the construction of perimeter roadways, located beyond the extent of the disposal area. The base elevation floodplain and flood storage at the project area is driven solely by direct precipitation within the same footprint as the project area (there is no upstream or upslope contributing watershed) and downslope controls and contribution from the off-site watershed to the east. Additional detail is available in Chapter 3, Subsection: Floodplains.				X		

Factor	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	Not Applicable
10. Land Use: According to 33 CFR § 320.4(j)(2), the primary responsibility for determining zoning and land use matters rests with state and local governments. The applicant's preferred alternative is within the boundary of the existing Regional Landfill. Conditional Use permits will be required by the City of Suffolk, and the City of Suffolk has not stated any opposition to granting the permit(s). As explained above, many off-site alternatives were not carried forward for consideration in this ROD because of stated opposition by the County or City responsible for permitting. The state provided a federal consistency certification pursuant to the Coastal Zone Management Act on June 25, 2024. DEQ issued an Individual Virginia Water Protection Permit and Section 401 Water Quality Certification on May 20, 2025. Air quality and solid waste management permits will also be required from the state.			X			
11. Navigation: The project is not in a navigable waterway and will not affect navigation.						X
12. Shoreline Erosion and Accretion: The project is not located along tidal waterway. The banks of all the proposed ponds will be properly stabilized.				X		
13. Recreation: The project does not involve any impacts on recreation.						X
14. Water Supply and Conservation: The proposed project is not a water supply project nor will it affect a water supply.						X
15. Water Quality: Stormwater management facilities, which would include a treatment train of perimeter ditches and traditional stormwater ponds must comply with state regulations for water quality. Water quality monitoring is required per other landfill requirements. The Virginia Department of Environmental Quality (DEQ) has issued a 401 certification/Water Protection Permit. The preservation areas provide buffers to the surrounding neighborhoods, help protect downstream water quality and serve as a connection between Burnetts Mill Creek and the Great Dismal Swamp.			X			
16. Energy Needs: Methane capture provides a beneficial reuse of collected landfill gases. A renewable natural gas facility was developed at the Regional Landfill. This facility turns landfill gases into pipeline-ready natural gas displacing other natural gas in the Columbia Gas system. Methane from the applicant's preferred alternative would also be captured through this system. Additional information is provided in Chapter 3, Subsection: Air Quality and Emissions.					X	

Factor	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	Not Applicable
17. Safety: During the public hearings for the project, one of the top public interest concerns about SH30 was related to traffic safety along Route 460 (including emergency medical service access and capacity). These safety concerns also apply to the hauling alternatives. Public concerns about traffic safety near the Regional Landfill will be alleviated by the flyover, which is currently being constructed.			X			
18. Food and Fiber Production: The project site was not used for food production. The project site and the preservation areas have been managed as a timber stands in the past and could have been used for fiber production. The project site will most likely be harvested one more time, but the preservation areas will never be harvested again. Given the amount of harvestable timber acreage within the state, the preservation of these forested areas will have a negligible impact on fiber production.				X		
19. Mineral Needs: The site is not used for mining minerals.						X
20. Consideration of Property Ownership: SPSA owns property, and no conflicts have been identified.					X	
21. Needs and Welfare of the People: SPSA's mission is to manage and operate a safe, cost-effective, and environmentally responsible solid waste management system to satisfy the waste disposal needs of its member localities, recognizing that different member localities have different waste-disposal needs. SPSA is a not-for-profit entity whose operations are bound by federal, state, and local laws and regulations, as well as its operating agreements with its members and other stakeholders. SPSA's preferred alternative has the least cost that will be passe don to member localities and ultimately the citizens of those localities.					X	

7.2 Public and Private Need

The relative extent of the public and private need for the proposed structure or work:

One of the purposes of SPSA, as stated in its articles of incorporation, is to acquire, finance, construct, operate, and maintain a garbage and refuse collection and disposal system. SPSA serves nearly 1.2 million residents, who generate more than one million tons of municipal solid waste per year. The applicant's preferred alternative meets the purpose and need and will provide a service to the member communities and their citizens.

7.3 Resource Use Unresolved Conflicts

There were no unresolved conflicts identified as to resource use. Adverse impacts will be mitigated. Comments received during the Public Hearing and during open the comment periods contributed to the Corps' decision, as documented in the FEIS.

7.4 Beneficial and/or Detrimental Effects on the Public and Private Use

Detrimental effects on the public and private use of the Project site are expected to be minimal (with mitigation) and permanent. Beneficial effects on the public use of the Project site are expected to be more than minimal and permanent. The Corps has determined that with mitigation, the long-term beneficial effects of the Project will outweigh the detrimental effects of the Project.

8.0 Mitigation

(33 CFR § 320.4(r), 33 CFR Part 332, 40 CFR §§ 230.70-77, and 40 CFR Part 1508)

8.1 Avoidance and minimization

When evaluating a proposal including regulated activities in waters of the United States, consideration must be given to avoiding and minimizing effects to those waters. Avoidance and minimization are described in Section 1.3.1 above.

The following includes a description of other mitigative actions including project modifications implemented to minimize adverse project impacts. (See 33 CFR § 320.4(r)(1)(i)):

During the initial stages of the EIS process, SPSA proposed to impact 129 acres of wetlands. After redesigning the expansion cells, SPSA proposed 117.36 acres of wetland impacts and that design was reviewed as Alternative B in the FEIS. Using a combination of onsite alternatives, SPSA was able to reduce the need within the Expansion Area and avoid approximately 7.72 acres of wetlands, which equated to 109.64 acres of wetland impacts. This onsite alternative (Alternative C), which includes expansion into Cells VIII and IX and utilizing the airspace between Cells V and VII within their current active facility boundary, is SPSA's preferred alternative and was reviewed as such in the FEIS. Alternative C avoids 23.81 acres of wetlands within the proposed Cells VIII and IX. The 23.81 acres of wetlands would be preserved as part of the mitigation plan.

8.2 Compensatory Mitigation Requirement

Is compensatory mitigation required to offset environmental losses resulting from proposed unavoidable impacts to waters of the United States? Yes

Provide rationale: The Project will impact 109.64 acres of forested wetlands within the Nansemond River Watershed. The Corps and EPA have provided comments throughout the EIS process to refine the applicant's mitigation plan.

8.3 Type and Location of Compensatory Mitigation

8.3.1 Mitigation bank service area

Is the impact in the service area of an approved mitigation bank? Yes

Does the mitigation bank have the appropriate number and resource type of credits available? No, see Section 8.3.4 for discussion regarding the use of the mitigation hierarchy. Mitigation Banks within the service area had some bank credits available, but not enough to fulfill the entire need for mitigation.

8.3.2 In-lieu fee program service area

Is the impact in the service area of an approved in-lieu fee program? Yes

Does the in-lieu fee program have the appropriate number and resource type of credits available? No, see Section 8.3.4 for discussion regarding the use of the mitigation hierarchy.

8.3.3 Compensatory mitigation

Selected compensatory mitigation type/location(s) (see Table 13):

Table 13. Mitigation Type and Location

Mitigation bank credits	X
In-lieu program credits	
Permittee-responsible mitigation under a watershed approach	
Permittee-responsible mitigation, on-site and in-kind	
Permittee-responsible mitigation, off-site and/or out-of-kind	X

8.3.4 Mitigation hierarchy

Does the selected compensatory mitigation option deviate from the order of the options presented in 33 CFR § 332.3(b)(2)-(6)? No

To fully compensate for the wetland impacts at a 2:1 ratio the applicant is required to provide at least 219.28 credits. SPSA purchased 159 bank credits, which equates to all the available wetland credits from mitigation banks within the service area. No in-lieu fee credits are available. The applicant pursued permittee-responsible mitigation to provide the remaining 60.28 credits. A watershed plan is not available; however, the permittee-responsible mitigation is within the watershed of the impact site. The applicant first evaluated preservation of land immediately adjoining the Project site and then land adjoining the Regional Landfill. Then the applicant pursued acquisition of land within

the watershed and near the Project site. The applicant's mitigation plan is discussed in Chapter 2, Subsection: Project-Specific Mitigation Options and is provided in Appendix G of the FEIS.

8.4 Amount of Compensatory Mitigation

SPSA purchased 83 credits from the Chesapeake Mitigation Bank, which is located within the same watershed (HUC 02080208), approximately 6.5 miles east of the proposed expansion site. The Chesapeake Mitigation Bank was constructed within the historic Great Dismal Swamp; however, the site drains north to the Elizabeth River. The mitigation is within the same overall watershed (Hampton Roads) as the expansion site but would also provide benefits to the Great Dismal Swamp since the bank involved restoration of wetlands previously associated with the Great Dismal Swamp. SPSA purchased a total of 76 credits from the Davis Mitigation Bank, which is located in the adjacent watershed (HUC 03010205), approximately 15 miles southeast of the expansion site. According to the Corps' Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS), the project is within Davis Mitigation Bank's primary service area. The Davis Bank also restored wetlands within the historic Great Dismal Swamp area and the bank's service area includes most portions of the historic Great Dismal Swamp. SPSA proposes the conservation of 742.56 acre of primarily forested wetland habitat within the sub watershed (020802080105- Nansemond River-Cedar Lake), with 629.67 acres sanctioned for wetland compensatory mitigation, and 112.89 acres partitioned for Canebrake rattlesnake habitat.

Rationale for required compensatory mitigation amount:

To compensate for permanent impacts to 109.64 acres of forested wetlands, the applicant is required to provide 219.28 wetland credits, based on application of the Norfolk District standard 2:1 ratio. Of the 83 credits obtained from the Chesapeake Mitigation Bank, approximately 72.21 credits (87%) are from the creation/restoration of wetlands. Of the 76 credits obtained from the Davis Mitigation Bank, approximately 41.8 credits (55%) are from the creation/restoration of wetlands. The purchase of credits satisfies the no net loss requirement with a total of 114 acres of wetlands generated by creation or restoration. The preservation acreage provides the remaining credits that are needed to fulfill a 2:1 ratio. Ratios above 1:1 provide for a temporal loss of wetland functions. To obtain the remaining 60.28 credits, the applicant will provide preservation of at least 602.80 acres of forested wetlands at a 10:1 ratio, which is generally required for preservation in Norfolk District. The applicant plans to preserve 621.46 acres of forested wetlands, which equates to 62.15 credits at a standard 10:1 ratio for preservation. In combination, the bank credits and preservation credits equal 221.15 credits, satisfying the requirements for compensatory mitigation. The Corps approved Permittee Responsible Mitigation (PRM) Plan also includes preservation of 1.89 acres

of emergent wetlands, 0.9 acres of open water, 0.6 acres of perennial stream, 0.08 acres of ditch and 4.74 acres of upland. In total, 629.67 acres will be preserved as compensatory wetland mitigation as depicted in the documents entitled “Compensatory Mitigation Plan Part 1” dated November 11, 2024, and “Compensatory Mitigation Plan Part 2” dated January 27, 2025, prepared by HDR.

8.5 Permittee-Responsible Mitigation

The permittee-responsible preservation sites were selected due to their proximity to the impact area, similar history, and ecological characteristics to compensate for impacts associated with Cells VIII and IX. All preservation sites were historically part of the Great Dismal Swamp and are within one mile of the proposed impact area. Each site has been logged previously, except for the cypress swamp. If not preserved for this project, these preservation areas would most likely be logged again in the future and could potentially be developed. One of the sites, the Nahra property, was originally proposed for development by the former owner and Cells X, XI and XII were slated for landfill development. The onsite preservation areas provide buffers to the surrounding neighborhoods, help protect downstream water quality and serve as a connection between Burnetts Mill Creek and the Great Dismal Swamp. The resources to be preserved provide important physical, chemical, and biological functions for the watershed as described in the Wetland Mitigation Plan (Appendix G of the FEIS). The preservation sites will be permanently protected through a conservation easement held by a third-party entity. The permittee-responsible preservation is part of a larger wetland compensatory mitigation plan that includes wetland restoration and establishment at the mitigation banks as described in the Wetland Mitigation Plan. For these reasons, preservation is appropriate as compensatory mitigation for the authorized activities per 33 CFR § 332.3 (h).

For permittee-responsible mitigation, the final mitigation plan must include the items described in 33 CFR § 332.4(c)(2) through (c)(14) at a level of detail commensurate with the scale and scope of the impacts. As an alternative, the district engineer may determine that it would be more appropriate to address any of the items described in (c)(2) through (c)(14) as permit conditions, instead of components of a compensatory mitigation plan. Presence of sufficient information related to each of these requirements in the applicant’s mitigation plan is indicated by ‘Yes’ in Table 14. ‘No’ indicates absence or insufficient information in the plan, in which case, additional rationale must be provided below on how these requirements will be addressed through special conditions or why a special condition is not required:

Table 14. Permittee-Responsible Mitigation Plan Requirements

Requirement	Yes	No
Objectives	X	
Site selection	X	
Site protection instrument	X	
Baseline information	X	
Determination of credits	X	
Mitigation work plan	X	
Maintenance plan	X	
Performance standards	X	
Monitoring requirements	X	
Long-term management plan	X	
Adaptive management plan	X	
Financial assurances	X	

9.0 Consideration of Cumulative Effects

(40 CFR Part 1508 & RGL 84-9) Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor direct and indirect but collectively significant actions taking place over a period of time. A cumulative effects assessment should consider how the direct and indirect environmental effects caused by the proposed activity requiring DA authorization (i.e., the incremental impact of the action) contribute to the aggregate effects of past, present, and reasonably foreseeable future actions, and whether that incremental contribution is significant or not.

9.1 Direct and Indirect Effects Which Are Caused by the Proposed Activity

The direct effects of this project will be the permanent loss of 109.64 acres of wetlands, along with the loss of functional values including wildlife habitat, water filtering, groundwater recharge, and flood retention. The project will have temporary impacts on 0.06 acres of ditch for construction of two bridges that will be used during construction. Indirect effects to the remaining wetland area could result in changes to the wetland size, hydrology, vegetation cover, or degree of habitat fragmentation. These types of effects could adversely affect the ability of the wetland to provide functions and values or could reduce the functions and values to a greater degree than the loss of the portion of wetland area. Loss of part of a wetland due to the project could create a new ecotone at the wetland-fill boundary, causing an edge effect. Short-term and long-term adverse effects to surface water hydrology are anticipated as a result of the Project. Long-term adverse effects of this projected increase in runoff are expected to be offset by the

design and implementation of stormwater management facilities, which would include a treatment train of perimeter ditches and traditional stormwater ponds that must comply with state regulations for water quality and quantity. The direct and indirect effects of the project are further detailed in Chapter 3 of the FEIS.

9.2 The Geographic Scope for the Cumulative Effects Assessment

The Hampton Roads drainage basin, HUC 02080208 was the geographic scope considered for this Project. This geographic area was selected because it is large enough to predict development trends and valid permit data is available. Approximately 36% of the watershed area in HUC 02080208 / Hampton Roads is wetland. The watershed contains over 115,032 acres of wetlands and approximately 1,079 stream miles, comprised of perennial, intermittent, and ephemeral tributaries.

9.3 Temporal Scope of this Assessment

The temporal scope covers 10 years of Corps permit data from ORM2, the Corps' database.

9.4 Description of the Affected Environment

The project area is located north of U.S. Route 58, and the Great Dismal Swamp National Wildlife Refuge National Wildlife Refuge is situated immediately south of the site on the opposite side of the road. The project area and surrounding areas are generally flat, with elevations ranging from approximately 20 to 22 ft. (NAVD88 datum). Surface water within most of this northern portion of the Great Dismal Swamp (approximately 2,500 acres, per a June 2019 floodplain study provided by SPSA's consultant, HDR) flows slowly across nearly level land toward the southwest and in ditches that flow north to south and east to west. Eventually, surface waters are intercepted by a ditch that flows north to south along an existing powerline just east of the project area. This ditch then discharges into another drainage ditch that runs immediately north of U.S. Route 58 and south of the SPSA property until it discharges into Burnetts Mill Creek. Runoff from the area west of the powerline ditch flows in a southeasterly direction until it too is intercepted by the powerline ditch. Runoff from the area immediately west of the SPSA property flows to the southwest and into Burnetts Mill Creek to the southwest of the SPSA property (see Figure 25 in the FEIS).

Based on ground elevations, the project area is the local high ground. Surface water and groundwater migrate away to the north, east, and south and the project area receives no runoff from adjacent lands. The land is characterized as a shallow groundwater wetland, distinguished as forested hardwood mineral flats. The underlying soils as mapped by NRCS are Tomotley loam, which is poorly drained, with very high runoff potential and a typical depth of 0-12 inches to the water table, and Torhunta loam, which is very poorly drained, with very high runoff potential, and a typical depth of 6-18

inches to the water table. Historically this land has been timbered and ditched, with large ditches east and south of the project area.

At the SPSA property, the surface hydrology consists of surface runoff that is directed into a combination of perimeter drainage ditches and on-site stormwater management facilities and sediment basins. For landfill Cells I through IV, which are capped and no longer in service, surface runoff is collected in an existing perimeter sedimentation and drainage control ditch. These are flat, grassed ditches with gravel dikes intermittently spaced to provide settling time for water and sediment as it flows from the base of the cells to a drainage point at Burnetts Mill Creek in the southwest corner of the property. Surface hydrology in the remaining active portions of the SPSA landfill consists of runoff into perimeter ditches and on-site stormwater management facilities, before draining to the south and eventually into Burnetts Mill Creek via one of three other outfalls.

The 137.18-acre Cells VIII and IX expansion area includes approximately 133.79 acres of wetlands and 0.93 acres of ditch. The uplands located within the expansion area total approximately 2.46 acres and exist in a linear area between the broad flat wetlands and the ditch along the adjacent utilized landfill cell to the northeast.

During the period of November 25, 2014, through November 25, 2024, Norfolk District issued 1,884 permits in the Hampton Roads watershed (02080208). These permits consisted of 742 nationwide permits, 920 regional permits, 183 programmatic general permits and 39 individual permits. Over the past 10 years, Norfolk District authorized 112 acres of permanent wetland impacts and 26,468 linear ft. of stream impacts. Norfolk District required 326 acres of wetland mitigation, 3,718 linear ft. of stream mitigation credits, and an additional 534 credits, which are most likely linear ft. based, within HUC 02080208 during this 10-year review period. Additional discussion concerning Cumulative Impacts is detailed in the FEIS at Chapter 3: Subsection Cumulative Impacts.

9.5 Environmental Consequences

Under the applicant's preferred alternative, the change in land use from a high-water-table forested wetland with poor to very poor drainage to a landfill will affect the immediate surface hydrology. Short-term and long-term adverse effects are anticipated. Long-term adverse effects of this projected increase in runoff are expected to be offset by the design and implementation of stormwater management facilities, which will include a treatment train of perimeter ditches and traditional stormwater ponds that must comply with state regulations for water quality and quantity. Surface water hydrology in the project area is primarily driven by direct precipitation, with very little contributing watershed upslope beyond the footprint of the Project. Further, the volume of direct runoff is a fraction (approximately 3%) of the total surface hydrology that is generated by the contributing watershed that drains to Burnetts Mill Creek, to the southwest of the

SPSA property. Direct precipitation onto the proposed expansion area will be intercepted by best management practices appropriate to the stage of the cell development, whether in the borrow pit phase, landfill development phase, operational phase, or upon the completion and capping phase per Virginia state regulations. The intercepted and treated surface water will be directed to eventually discharge into Burnetts Mill Creek, resulting in a hydroperiod comparable to pre-existing conditions. Both short- and long-term effects to hydrology will ultimately be offset through implementation of SPSA's proposed mitigation plan which includes on-site and off-site preservation and conservation. Additional mitigation details are included in SPSA's Mitigation Plan, located in Appendix G of the FEIS.

Long-term adverse effects to the base flood elevation are not anticipated. Approximately 0.11 acres of floodplain are anticipated to be affected by the construction of perimeter roadways, located beyond the extent of the disposal area. Long-term adverse effects to groundwater are not anticipated. Excavation to the design depth of 20-40 ft. below grade for cell construction would penetrate the full thickness of the surface aquifer along most of the extent of the expansion area and extend into the underlying dense, confining unit in deeper portions of the excavation. As indicated in Chapter 2 of the FEIS, groundwater in the surface aquifer would temporarily be displaced from the zone of excavation due to phased dewatering activities during construction. The dewatering system will be installed separately from the leachate collection system to control pressure on the bottom and sides of the expansion site liners, to induce an inward gradient, as is currently used in Cells V, VI and VII, combined with a double composite liner system where if a failure were to occur, the cell would fill with groundwater verses leachate migrating out. Based on the radius of influence of sumps used for dewatering Cells V and VI during construction, which were constructed on similar geologic materials, the maximum anticipated radius of influence for dewatering Cells VIII and IX is approximately 1,400 ft. from sumps (HDR 2007, 2008). Once sufficient ballast (waste) is added to the cells, dewatering will cease, and the lined bases of Cells VIII and IX will lie within the surface aquifer and displace groundwater locally. To date, hydrology of wetlands in the area has not shown a discernible impact from dewatering other area cells. If needed, monitoring could be required. Although stormwater management regulations aim to reduce impacts to water quality due to land use changes from pre-development conditions to post-development conditions, permanent short- and long-term adverse effects are anticipated. The adverse impact is anticipated as a result of the permanent conversion of an existing forested wetland system to a capped landfill system which would reduce infiltration and nutrient uptake. The Regional Landfill is an established facility with the necessary permits, infrastructure, and systems in place to continue to manage and monitor its water quality discharges as existing cells are capped and new cells are opened, developed, and eventually also capped.

Approximately 109.64 acres of wetlands and their functions will be lost. Compensatory mitigation in the form of mitigation bank credits at a 2:1 ratio will replace wetland acreage and address some of the temporal loss of wetland functions. Preservation of on-site wetlands within the area that was slated as future expansion will prevent future cumulative impacts, provide a buffer, and serve as wildlife habitat. The on-site preservation will also prevent future silvicultural operations, allowing for continued growth of the forest and long-term habitat benefits. The preservation of the adjoining property, which contains wetlands and uplands, will provide similar benefits. The preservation of property south of the SPSA site, located next to the Great Dismal Swamp, but within the Nansemond River watershed, will also provide similar functions as the other proposed preservation sites and the proposed expansion site. During construction best management practices, including silt fence and installation of required landfill liners, will be used to protect nearby wetlands. The local area will have a loss of wetland function including loss of wildlife habitat, sediment or nutrient removal, and floodflow attenuation. These functions are also provided in the nearby wetlands proposed for preservation and continue into other parts of the historic Great Dismal Swamp range.

Direct, temporary and permanent effects to some wildlife species onsite are anticipated during activities associated with construction of the landfill expansion. As construction occurs, collisions with work vehicles or crushing could occur. Other project actions could also cause injury or mortality to wildlife on-site. If present, the amphibians, reptiles, and small mammals identified here are anticipated to be the most affected by these impacts, as they are less mobile than other species. Although they are more capable of dispersal, bats could also be affected by these temporary impacts due to loss of roosting trees. However, they are less likely to be injured or killed during development since they could fly out of the affected area. Additional direct, temporary and permanent effects include disturbance due to noise, vibration, and human presence during construction, both within and adjacent to the expansion area. This disturbance could cause wildlife on or near the expansion area to disperse or potentially abandon breeding attempts, foraging opportunities, or shelter from predators. It could also induce stress in wildlife, which could have adverse behavioral and physical impacts that could lead to injury or mortality. The project will also cause direct, permanent adverse effects to the species onsite, as suitable habitat will be lost when the forested wetlands within the expansion area are cleared and drained to expand the landfill. Suitable habitat for most of the species listed will be lost and the project area will no longer be able to support these species. Some species could find shelter within the 742 acres of land that is proposed to be preserved. The proposed preservation areas will provide habitat for forest interior dwelling species and will provide connective corridors.

Development of the Project will create a new ecotone at the edge of the adjacent wetland areas, and the hydrology of nearby wetland areas could be adversely affected by on-site dewatering activities. This could lead to changes in the vegetation community composition, which could alter the use of the habitat by some species. Climate change could further impact species diversity due to changes in temperature and precipitation patterns. The Mitigation Plan proposes monitoring of the preservation area along the edge of the Project LOD. The onsite monitoring results will be evaluated to determine if any indirect wetland impacts occur in the future.

9.6 Conclusions Regarding Cumulative Impacts

When considering the direct and indirect impacts that will result from the proposed activity, in relation to the overall direct and indirect impacts from past, present, and reasonably foreseeable future activities, the incremental contribution of the proposed activity to cumulative impacts in the area described in section 9.2, are not significant. Compensatory mitigation will be required to offset the impacts of the proposed activity to eliminate or minimize its incremental contribution to cumulative effects within the geographic area described in Section 9.2. Mitigation required for the proposed activity is discussed in Section 8.0.

10.0 Comments on the Final Environmental Impact Statement

The Corps received comments on the FEIS from three individuals and/or organizations. Many of the comments were a reiteration of comments submitted on the DEIS (see Appendix J of the FEIS for response to DEIS comments).

One commenter expressed concerns about SPSA no longer utilizing the Waste to Energy plant in Portsmouth VA. The commenter also indicated that capacity is available in other areas and that there is plenty of land in non-tidal wetlands within the member communities to build a landfill once existing capacity becomes insufficient. The commenter stated that the Regional Landfill creates major safety issues as vehicles enter the landfill from the west.

> *Corps Response: All of the concerns stated by the commenter were thoroughly addressed in the FEIS.*

The Corps received a comment letter jointly submitted by the Chesapeake Bay Foundation (CBF), the Southern Environmental Law Center (SELC), and Wetlands Watch (WW). Comments received on the FEIS included the following topics: 1) Purpose and Need, 2) Inexpensive Soil Stockpile 3) Alternatives Analysis as it relates to Project Purpose and Need, and 4) Mitigation. The comments are addressed below.

Purpose and Need for the Project

- SELC-CBF-WW indicated that despite already having sufficient onsite storage permitted through approximately 2037, SPSA decided to initiate this project earlier than would otherwise be necessary (by filing a JPA in June 2023), as it has explicitly stated, because it needs an inexpensive soil stockpiling area while it constructs Cell VII.

  Corps Response: First, SPSA is required to provide waste disposal beyond 2037, as explained in the Purpose and Need sections of the FEIS and this ROD. Under 9 VAC Section 20-130-120, SPSA is required to develop a solid waste management plan that contains an "assessment of all current and predicted needs for solid waste management for a period of 20 years and a description of the action to be taken to meet those needs." The current RSWMP expires this year; thus, SPSA's required planning horizon will be extended to 2045 (and by 2030, to 2050). Under SPSA's Use and Support Agreements with its member localities, SPSA is further required to maintain 20 years of operating capacity; accordingly, SPSA is also obligated to provide and maintain disposal capacity through at least 2045 by these agreements. As a result of these requirements, and the planning, permitting, and construction timeline, USACE has determined that the record before it supports a purpose and need that extends beyond SPSA's minimal requirements.

  As previously explained, the process of obtaining all necessary permits and approvals to construct a landfill is multifaceted and can span several years. Here, SPSA initiated the environmental review process in 2020 and subsequently submitted a joint permit application in 2023. Planning, permitting, and construction timelines are lengthy for many reasons, including the following:

  - *Timing to complete detailed full design plans for landfill solid waste permitting; The NEPA effort was based on higher level design plans, which better inform the analysis of impacts and alternatives;*
  - *Wetland permits are typically required before a solid waste permit can be issued by VDEQ;*
  - *Securing CUPs from City of Suffolk; and*
  - *Construction process length, including:*
    - *Bidding;*
    - *TOYR for clearing;*
    - *Duration of excavation and associated dewatering;*
    - *Construction of inward gradient landfill including the placement of a double composite liner system; and*

- *Duration of "soft" opening allows for settling, testing, and evaluation, and prevents damage to liner system.*

In terms of soil management, standard practice for landfill development incorporates good soil management strategies to achieve efficient operations. Furthermore, material from the initial excavation of Cell VII has been used for daily cover on active cells. In addition, material from Phase 1 of Cell VII will be stockpiled in Phase 2 of Cell VII and does not warrant the immediate use of Cell VIII for stockpiling. Some material from Cell VII excavation may also be hauled off site; SPSA is currently in negotiations with an end user.

- SELC-CBF-WW commented that in the Final EIS, the Corps determined it was appropriate to examine waste disposal capacity beyond the minimum planning horizon prescribed by regulation, and that this determination might have been justified had the Corps chosen a reasonable timeframe rather than use the 2060 endpoint, which was indicated by the applicant. SELC-CBF-WW noted that the Final EIS layers five-year solid waste management update increments on top of one another in an attempt to achieve SPSA's desired planning horizon.

  Corps Response: The P&N section of the FEIS provided a detailed analysis of the Corps evaluation of P&N of the proposed action. As previously explained, as of this year, SPSA does not currently have the minimum capacity required by regulation and by contract. Were USACE to define the purpose and need to meet SPSA's minimum planning requirements, SPSA would need—based on the timing associated with this permitting process—to almost immediately initiate a second planning and environmental review to meet its regulatory and contractual obligations.

- SELC-CBF-WW stated that the Corps translates the 2060 planning horizon for purposes of evaluating alternatives into 16 million cubic yards of disposal capacity. SELC-CBF-WW believes that the Corps conflates requirements to assess solid waste management needs for the next 20 years with a requirement to maintain 20 years of capacity.

  Corps Response: Under 9 VAC Section 20-130-120, SPSA is required to develop a solid waste management plan that contains an "assessment of all current and predicted needs for solid waste management for a period of 20 years and a description of the action to be taken to meet those needs." Moreover, SPSA's member locality agreements require it to maintain 20 years of disposal capacity. USACE has not interpreted this to require 20 years of capacity at the SPSA facility; the alternatives evaluated have included numerous alternative technologies or hauling-dependent measures that would not require capacity at SPSA. It is correct, however, that USACE believes SPSA is required to not

simply evaluate the waste disposal needs of its service area, but to plan to meet those needs through disposal capacity as defined broadly in the FEIS.

- SELC-CBF-WW believes that the Corps has an inconsistent interpretation of the project planning horizon, which forms the foundation of the project purpose and need. SELC-CBF-WW indicates that the FEIS fails to satisfy the Corps' obligation to independently define the purpose and need of the project from both the applicant's and the public's perspective as required by the Corps' NEPA regulations.

  Corps Response: The Corps has consistently identified 2060 as the appropriate planning horizon, and it has independently evaluated the applicant's purpose and need. The Corps refined it in the FEIS to better explain its evaluation of the record and reasoning.

<u>Inexpensive Soil Stockpile</u>

- SELC-CBF-WW indicated that the modified purpose and need leaves out a primary driver of SPSA seeking the Corps' approval for wetlands impacts at this early stage, and that is the need to inexpensively and conveniently store fill material and to reduce costs associated with the already approved Cell VII expansion of the SPSA landfill.

  Corps Response: Material from Phase 1 of Cell VII will be stockpiled in Phase 2 of Cell VII and does not warrant the immediate use of Cell VIII for stockpiling. Some material from excavation may be hauled off site. As part of SPSA's normal operations, some material from Phase 2 of Cell VII may be stockpiled on Cell VIII after clearing and grubbing. Total costs associated with permitting, mitigation, and development of Cells VIII and IX would not support the conclusion that stockpiling in the proposed areas would be an inexpensive option as compared to any other alternatives to stockpiling. Regardless, nothing would prohibit decisions by SPSA to efficiently manage soils at the site.

- SELC-CBF-WW believes that the Corps should have considered stockpiling of fill from Cell VII as part of the purpose and need for the project, so the Final EIS lacks the necessary alternatives analysis to show that there are not more reasonable alternative locations or methods for stockpiling soil from Cell VII.

  Corps Response: The Corps believes the Purpose and Need addresses capacity, and that stockpiling/excavation of material is a component of normal/daily operations for landfills across the country. SPSA has options for hauling material from Cell VII elsewhere, if necessary.

- SELC-CBF-WW commented that not considering stockpiling means the difference between keeping important wetlands and their significant natural resource value in place for nearly 10 years. The Final EIS failed to analyze the stockpiling as a reason for the proposed project.

  Corps Response: For the purposes of the EIS, construction was defined as the placement of the first layer of the liner system. Without even considering Cell VIII for Cell VII operational support, many other actions would need to occur to prepare Cell VIII prior to liner placement. Such actions include design, permitting, clearing, grubbing, excavation and dewatering. SPSA would also have to consider timing to accommodate the "soft opening" required for new landfills, as explained above. Timeframes for development are approximate and largely depend on daily landfill operations which affect airspace consumption at various rates. Even without using Cell VIII for Cell VII support, the Corps does not anticipate that there would be a 10-year variance in the timeframe.

Alternatives Analysis and Project Purpose and Need

- SELC-CBF-WW believes that the costs calculations for the alternatives would result in the other alternatives having either lower overall costs relative to SPSA's preferred Alternative C or moderately higher costs, if a more reasonable planning horizon had been utilized for the project, such as 2045 or 2050.

  Corps Response: The Norfolk District has consistently identified 2060 as the appropriate planning horizon, and it has independently evaluated the applicant's purpose and need. The Corps refined it in the FEIS to better explain its evaluation of the record and reasoning. For the reasons previously stated, relying on the minimally required planning window ignores the significant time required for design, planning, environmental review, permitting, constructing, etc.

  Furthermore, though the comment speculates about costs and does not provide evidence, the commenter recognizes that, even with a shorter planning window, other alternatives' costs may still have been higher than Alternative C.

- SELC-CBF-WW contended that the Final EIS fails to place a monetary value on the 109.74 acres of wetlands that will be permanently lost under Alternative C. If the Final EIS included a reasonable valuation for the loss of these wetlands, the costs between Alternatives A and C would be even further reduced.

  Corps Response: The cost analysis considered the price of compensatory wetland mitigation, and the costs were based on the replacement of existing wetlands at a 2:1 ratio. A functional assessment of the wetlands at the impact site was utilized to determine the existing primary functions and values. The functions and values of the wetlands to be impacted were compared to the compensatory

mitigation (bank credits and preservation sites), as discussed in the Mitigation Plan and within Chapter 2 of the FEIS. The mitigation bank sites and preservation areas were found to contain similar functions and values as the impact site and the large acreage of land to be preserved in perpetuity benefits the watershed and the surrounding communities.

- SELC-CBF-WW indicated that using a more reasonable planning horizon, like 2050, would result in both scenarios under Alternative E being more economical than Alternative C, while also reducing wetlands impacts by over 25 percent. Therefore, they believe that either of the scenarios under Alternative E are also more viable options than the applicant's preferred alternative.

  Corps Response: SPSA currently has less than 13 years of permitted capacity, through 2037. In order to maintain 20 years of disposal capacity, SPSA began planning, preliminary design, and the permitting process for a landfill expansion in 2020. If permits are issued to authorize the construction of Cells VIII and IX, the life of the Regional Landfill would be extended through approximately 2060 depending on densities achieved during the operational window. Were the Norfolk District to identify a smaller planning horizon and capacity, e.g., a 20-year timeline starting now, projected waste management needs and applicable law would require SPSA to begin planning for additional capacity in just a few years (regardless of the alternative it pursues). This year, SPSA's required minimal planning horizon will extend to the year 2045 pursuant to the revised 2025 RSWMP. By 2030, upon the next RSWMP revision, SPSA must plan through 2050. As such, the analysis completed in the FEIS is an accurate reflection of the proposed action and under this analysis, Alternatives A and E are not practicable.

<u>Mitigation</u>

- SELC-CBF-WW has concerns that the permittee-responsible mitigation for the significant proposed impacts from the project does not adequately address the Corps' no net loss requirements.

  Corps Response: SPSA has purchased 83 credits from the Chesapeake Mitigation Bank, which is located within the same watershed (HUC 02080208). Of the 83 credits obtained, approximately 72.21 credits (87%) are from the creation/restoration of wetlands. SPSA has purchased a total of 76 credits from the Davis Mitigation Bank, which is located in the adjacent watershed (HUC 03010205). Of the 76 credits obtained, approximately 41.8 credits (55%) are from the creation/restoration of wetlands. As shown in Table 15, the mitigation credits purchased equate to 114 acres of wetlands created or restored, which effectively meets a no net loss of wetlands for 109.64 acres of wetland impacts. As explained previously, at a 2:1 ratio, the applicant needed an additional 60.28

credits to compensate for forested wetland impacts (notwithstanding that, technically, no net loss has been met). The permittee responsible mitigation consisting of 621.46 acres of forested wetlands, which equates to 62.15 credits at a standard 10:1 ratio for preservation. Each site has been logged previously, except for the cypress swamp. If not preserved for this project, these preservation areas would most likely be logged again in the future and could potentially be developed. One of the sites, the Nahra property, was originally proposed for development by the former owner and Cells X, XI and XII were slated for landfill development. The onsite preservation areas provide buffers to the surrounding neighborhoods, help protect downstream water quality and serve as a connection between Burnetts Mill Creek and the Great Dismal Swamp. The resources to be preserved provide important physical, chemical, and biological functions for the watershed as described in the Wetland Mitigation Plan (Appendix G of the FEIS). The preservation sites will be permanently protected through a conservation easement held by a third-party entity.

Table 15. Mitigation Credits and Demonstration of No Net Loss

Source	HUC	Impact Acreage	Mitigation Ratio	Purchased Credits	Percent from Creation & Restoration	Credits (Acres) from Creation & Restoration
Chesapeake Mitigation Bank	02080208	41.5	2:1	83	87%	72.2
Davis Mitigation Bank	03010205	38	2:1	76	55%	41.8
Total	--	**79.5**	**2:1**	**159**	**--**	**114.0**

- SELC-CBF-WW indicated that the mitigation banks lack the same close proximity to the impacted wetlands as the permittee-responsible wetland preservation sites proposed.

  Corps Response: The Chesapeake Mitigation Bank is located within the same watershed (HUC 02080208) as the Project site and is approximately 6.5 miles east of the proposed expansion site. This bank is contiguous to the Great Dismal Swamp and was comprised of previously drained forest, pasture, and crop land. The Chesapeake Mitigation Bank was constructed within the historic Great Dismal Swamp; however, the site drains north to the Elizabeth River. The mitigation is within the same overall watershed (Hampton Roads) as the expansion site but would also provide benefits to the Great Dismal Swamp since the bank involved restoration of wetlands previously associated with the Great Dismal Swamp. The Davis Mitigation Bank is located in the adjacent watershed

(HUC 03010205), approximately 15 miles southeast of the expansion site. Per the US Army Corps of Engineers (USACE) Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS), the Project is within Davis Mitigation Bank's primary service area. This bank consists of prior-converted cropland, previously forested wetlands, and farmed wetland pasture that was restored to forested wetlands. This bank is contiguous to the Northwest River which is connected to the Great Dismal Swamp. The Davis Bank restored wetlands within the historic Great Dismal Swamp area and the bank's service area includes most portions of the historic Great Dismal Swamp.

Furthermore, the former Cells X, XII and XII are located immediately adjacent to the impact site, the Nahra property adjoins the active landfill cells and is less than 2,500 feet from the impact site, and the Magnolia Farms property is approximately 4,500 feet south of the impact site; therefore, all of the preservation sites are in very close proximity to the impacted wetlands.

- SELC-CBF-WW commented that the wetland preservation sites, while significant in volume, notably lack any creation or enhancement of wetlands. The letter indicated that wetland creation or enhancement mitigation measures should be considered in any Record of Decision if the applicant's preferred alternative is selected to ensure a no net loss of function and value of wetlands is attained.

  Corps Response: The applicant coordinated the mitigation plan with the Corps and EPA during stages of development. The applicant had considered wetland enhancement in certain portions of the Nahra preservation areas, but the Corps evaluated the site and determined that enhancement in these areas would not necessarily be beneficial. Those areas were later moved to the Canebrake Rattlesnake mitigation. The Corps determined that the Cells X, XI, and XII, the wetland portions of the Nahra property and the Magnolia Property contain mature forested wetlands that would have very limited availability for wetland enhancement or creation, because they are already high value wetlands worthy of preservation. The preservation properties were selected due to their proximity to the impact area, similar history, and ecological characteristics to compensate for impacts associated with Cells VIII and IX. All preservation sites were historically part of the Great Dismal Swamp and are within one mile of the proposed impact area. Each site has been logged previously, except for the cypress swamp. If not preserved for this project, these proposed preservation areas would most likely be logged again in the future and could potentially be developed. The 217.21 acres within the previously proposed Cells X, XI, and XII will no longer be developed as part of the landfill. The preservation areas provide buffers to the surrounding neighborhoods, help protect downstream water quality and serve as a connection between Burnetts Mill Creek and the Great Dismal

Swamp. The resources to be preserved provide important physical, chemical, and biological functions for the watershed as described in the Wetland Mitigation Plan (Appendix G of the FEIS). The preservation sites will be permanently protected through a conservation easement held by a third-party entity. The permittee-responsible preservation is part of a larger wetland compensatory mitigation plan that includes wetland restoration and establishment at the mitigation banks as described in the Wetland Mitigation Plan. For these reasons, preservation is appropriate as compensatory mitigation for the authorized activities per 33 CFR § 332.3 (h). The Corps evaluated the applicant's mitigation plan and determined that the proposed plan meets the requirements of the Mitigation Rule.

11.0 Compliance with Other Laws, Policies and Requirements

11.1 Section 7(a)(2) of the Endangered Species Act (ESA)

Refer to Section 2.2 for description of the Corps' action area for Section 7 of the ESA.

11.1.1 Lead federal agency for Section 7 of the ESA

Has another federal agency been identified as the lead agency for complying with Section 7 of the ESA with the Corps designated as a cooperating agency and has that consultation been completed? No

11.1.2 Listed/proposed species and/or designated/proposed critical habitat

Are there listed or proposed species and/or designated critical habitat or proposed critical habitat that may be present or in the vicinity of the Corps' action area? Yes

Effect determination(s), including no effect, for all known species/habitat, and basis for determination(s): On June 5, 2023, the Norfolk District used IPaC to obtain an official USFWS species list from the Virginia Ecological Services Field Office, which identified the listed and proposed species that may be affected by the project as the following: federally listed endangered Northern long-eared Bat (NLEB) (*Myotis septentrionalis*); proposed to be federally listed endangered Tricolored Bat (*Perimyotis subflavus*); federally listed endangered Red-cockaded woodpecker (*Picoides borealis*); and candidate species Monarch Butterfly (*Danaus plexippus*). The Norfolk District used the Northern Long-eared Bat Range wide Determination Key (DKey) and reached the determination of "May Affect, Not Likely to Adversely Affect (NLAA)" for the NLEB on June 5, 2023. The project would adhere to Time of Year Restrictions (TOYR) of no work occurring from December 15th to February 15th and April 15th to July 30th of any given year to minimize impacts to the NLEB. The determination was submitted to the USFWS through IPaC for the 15-day comment period and no comments were received. For the other listed species, the Norfolk District initiated Section 7 consultation during the joint

permit application review through the public notice coordination on June 16, 2023. The Norfolk District concluded that no suitable habitat is present for the Red-cockaded woodpecker, which generally selects mature loblolly trees that are 70 to 90 years of age for nesting. No known nesting colonies of this species are present within the project area. Very limited habitat would be present for the candidate species, monarch butterfly.

The Norfolk District requested an updated species list and an updated Concurrence letter for the NLAA determination for the NLEB from IPaC on October 13, 2023. No comments were received from USFWS within the 15-day comment period. The Norfolk District reached a May Affect, Not Likely to Adversely Affect determination for the Tricolored Bat (*Perimyotis subflavus*). Additional conferencing for the Tricolored Bat was initiated on October 19, 2023, for a 60-day period. USFWS provided a comment for the coordination related to the Tricolored bat on December 19, 2023. The Norfolk District provided the revised Species Conclusion Table and on December 20, 2023, USFWS concurred. The project would adhere to TOYR of no work occurring from December 15th to February 15th and April 15th to July 30th of any given year to minimize impacts to the Tricolored Bat. The Norfolk District requested an updated species list on November 4, 2024. The same species identified above were present on the updated list. The USFWS has updated the Northern Long-eared Bat (NLEB) and Tricolored Bat (TCB) Guidance and Determination Key Standing Analysis. Therefore, the Norfolk District analyzed the project using the new IPaC Dkey on November 4, 2024. The analysis resulted in a “may affect” determination for Northern Long-eared Bat and Tricolored Bat.

The Norfolk District completed a Biological Assessment and submitted the document to USFWS on November 5, 2024. USFWS responded on November 21, 2024, and indicated that if the project adhered to the TOYRs from December 15th to February 15th and April 1st to July 15th, then they concur with a NLAA determination. Norfolk District updated the Species Conclusion Table. USFWS also requested additional information concerning the project specific conditions to ensure that Red-cockaded woodpecker habitat was not present. Norfolk District provided representative photos of the project site and indicated that the site contains a mix of pines and hardwood species, with an understory of *Arundinaria tecta*, red maple and sweetgum saplings, American Holly, and greenbrier. The site was last logged in two phases approximately 39–44 years ago. Red-cockaded woodpeckers prefer open mature pine forests and select mature loblolly that are 70–90 years old, so it is unlikely that suitable habitat is present within the action area. USFWS concurred on December 4, 2024.

11.1.3 Section 7 ESA consultation

Consultation with either the National Marine Fisheries Service and/or the United States Fish and Wildlife Service was initiated and completed as required, for any

determinations other than “no effect” (see the attached ORM2 Summary sheet for begin date, end date and closure method of the consultation)

The permit will include TOYRs from December 15th to February 15th and April 1st to July 15th to minimize impacts to federally protected bat species.

11.2 Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), Essential Fish Habitat (EFH)

N/A, there is no essential fish habitat in this district's area of responsibility.

11.2.1 Lead federal agency for EFH provisions of the Magnuson-Stevens Act

Has another federal agency been identified as the lead agency for complying with the EFH provisions of the Magnuson-Stevens Act with the Corps designated as a cooperating agency and has that consultation been completed? No

11.2.2 Magnuson-Stevens Act

Did the proposed project require review under the Magnuson-Stevens Act? No

11.2.3 EFH species or complexes

Were EFH species or complexes considered? No

Effect determination and basis for that determination: Nontidal waters and no EFH present; therefore, no coordination under Magnuson-Stevens Act is required.

11.3 Section 106 of the NHPA

Refer to Section 2.3 for permit area determination.

11.3.1 Lead federal agency for Section 106 of the NHPA

Has another federal agency been identified as the lead federal agency for complying with Section 106 of the NHPA with the Corps designated as a cooperating agency and has that consultation been completed? No

11.3.2 Historic properties

Known historic properties present? No

There are no historic structures, buildings, or districts within or immediately adjacent to the expansion area for Alternatives B, C, and E as confirmed by VDHR’s Virginia Cultural Resource Information System (V-CRIS) database. In the winter of 2023-2024, archaeologists from Gray & Pape Heritage Management (Gray & Pape) conducted fieldwork and shovel tests for a Phase IB investigation to determine if any intact archaeological resources are present in the project area. No archaeological sites, isolated finds, or other potentially eligible archaeological resources were identified within the project area.

On October 11, 2023, the Nansemond Indian Nation provided the Norfolk District with a letter which indicated that the Tribe believed a Traditional Cultural Place (TCP) of significance to the Tribe is present within the project area. During a June 4, 2024, meeting, Gray & Pape presented their initial findings from the Ethnographic Evaluation, Ethnobotanical Mapping, and GIS Study. The study is intended to help all parties determine where and what is the TCP. Gray & Pape conducted two rounds of ethnobotanical studies on the proposed expansion site, in March and May 2024. On June 19, 2024, the Nansemond Indian Nation provided the Norfolk District with a Statement of Significance for the proposed TCP. The Nansemond Indian Nation have indicated that the "Great Dismal Swamp is a landscape of incredible historical, cultural, ecological, and spiritual importance to our Nation, from deep Pre-Contact times until the present day." Identification of the TCP is detailed in Gray & Pape's Ethnographic Evaluation, Ethnobotanical Mapping, and GIS Mapping study dated September 11, 2024.

Effect determination and basis for that determination: In consultation with the Nansemond Indian Nation, which has ancestral ties to the Great Dismal Swamp and nearby Nansemond River, the Mawinsowa Swamp TCP was identified encompassing the project area and surrounding vicinity. The Mawinsowa Swamp TCP that encompasses the project area was determined eligible for listing in the National Register under Criterion A (resources that are associated with events that have made significant contributions to the broad patterns of our history) and D (resources that yielded, or may be likely to yield, information important to prehistory or history). Additional details are available in the FEIS at Chapter 3: Subsection Cultural Resources and Chapter 4: Subsection Tribal Nations.

11.3.3 Consultation with the appropriate agencies, tribes and/or other parties for effect determinations

Consultation was initiated and completed with the appropriate agencies, tribes and/or other parties for any determinations other than "no potential to cause effects." (See the attached ORM2 Summary sheet for begin date, end date and closure method of the consultation.)

A Determination of Effects on the Mawinsowa Swamp TCP was prepared by Gray & Pape. On September 26, 2024, Norfolk District submitted a package to the SHPO, which concluded that the TCP is eligible to the NRHP under Criteria A (resources that are associated with events that have made significant contribution to the broad patterns of our history) and D (resources that have yielded, or may be likely to yield, information important in prehistory or history) and that the Project would have an adverse effect on the Mawinsowa Swamp TCP. The Nansemond Indian Nation concurred on September 23, 2024, and the SHPO concurred with this determination on October 24, 2024. The Norfolk District coordinated the adverse effect with the Advisory Council on Historic

Preservation (ACHP) on November 6, 2024. On November 18, 2024, ACHP provided a letter and concluded that Appendix A- Criteria for Council Involvement in Reviewing Individual Section 106 Cases, of their regulations, “Protection of Historic Properties” (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act, does not apply to this undertaking. Therefore, ACHP does not believe that their participation in the consultation to resolve adverse effects is needed. However, if requested by the SHPO or a consulting party, ACHP would participate in the (Memorandum of Agreement (MOA) process. Section 106 was culminated in an MOA to address adverse effects to the Mawinsowa Swamp TCP. The MOA was finalized on June 13, 2024, with signatures from the applicant, the SPHO, Norfolk District and the Nansemond Indian Nation.

11.4 Tribal Trust Responsibilities

11.4.1 Tribal government-to-government consultation

Was government-to-government consultation conducted with federally recognized tribe(s)? Yes

Provide a description of any consultation(s) conducted including results and how concerns were addressed.

The Norfolk District provided Gray & Pape’s revised Ethnographic Evaluation, Ethnobotanical Mapping, and GIS Mapping study and the Determination of Effects on the Mawinsowa Swamp Traditional Cultural Place, and coordinated individually with the Delaware Nation, Chickahominy Indian Tribe, Chickahominy Indian Tribe – Eastern Division, Monacan Indian Nation, Pamunkey Tribe, Rappahannock Indian Tribe, Inc., and Upper Mattaponi Tribe Indian Tribe on September 26, 2024. The Norfolk District requested comments on the documents and asked if any of the Consulting Tribes would like to participate in the MOA process. On November 1, 2024, Norfolk District followed up with the Tribes and reiterated the request for comments and asked about participation in the MOA process. The Delaware Nation contacted the Norfolk District on November 4, 2024, and indicated that they would defer to the Nansemond Indian Nation regarding the MOA development. On March 5, 2025, the Upper Mattaponi Tribe indicated that they had no comments. No other comments from the Consulting Tribes were received and none of the Tribes have requested to participate in the MOA development process, except for the Nansemond Indian Nation.

Norfolk District engaged with the federally recognized tribes through correspondence and several meetings. Consultation is described above and in detail within the FEIS in Chapter 4: Subsection Tribal Nations.

11.4.2 Other Tribal consultation

Other Tribal consultation including any discussion of Tribal Treaty rights.

The project is not located on or near lands owned by a Tribal Nation. Consultation for adverse effects to the Mawinsowa Swamp TCP was completed and discussed in previous sections.

11.5 Section 401 of the Clean Water Act – Water Quality Certification (WQC)

11.5.1 Section 401 WQC requirement

Is an individual Section 401 WQC required, and if so, has the certification been issued or waived?

An individual WQC is required and has been granted. DEQ issued Virginia Water Permit (VWP) Individual Permit No. 23-1262 on May 20, 2025.

11.5.2 401(a)(2) Process

If the certifying authority granted an individual WQC, did the United States Environmental Protection Agency make a determination that the discharge 'may affect' water quality in a neighboring jurisdiction? No

On June 4, 2025, EPA determined that it will not send a 'may affect' notification to neighboring jurisdictions, and EPA indicated that the Corps may proceed with processing of the permit.

11.6 Coastal Zone Management Act (CZMA)

11.6.1 CZMA consistency concurrence

Is a CZMA consistency concurrence required, and if so, has the concurrence been issued, objected to, or presumed?

An individual CZMA consistency concurrence is required and was issued by DEQ on June 25, 2024. The applicant will be providing mitigation for impacts to state-listed species. The project will need to adhere to other state permitting requirements.

11.7 Wild and Scenic Rivers Act

11.7.1 National Wild and Scenic River System

Is the project located in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system? No

11.8 Effects on Corps Civil Works Projects (33 USC 408)

11.8.1 Permission requirements under Section 14 of the Rivers and Harbors Act (33 USC 408)

Does the applicant also require permission under Section 14 of the Rivers and Harbors Act (33 USC 408) because the activity, in whole or in part, would alter, occupy, or use a Corps Civil Works project? No, there are no federal projects in or near the vicinity of the proposal.

11.9 Corps Wetland Policy (33 CFR § 320.4(b))

11.9.1 Wetland Impacts

Does the project propose to impact wetlands? Yes

11.9.2 Wetland impact public interest review

Based on the public interest review herein, the beneficial effects of the project outweigh the detrimental impacts of the project.

11.10 Other (as needed)

Coordination with federal, state and local agencies is detailed in Chapter 4 of the FEIS.

11.11 Compliance Statement

The Corps has determined that it has fulfilled its responsibilities under the following laws, regulations, policies, and guidance:

Table 16. Compliance with Federal Laws and Responsibilities

Laws, Regulations, Policies, and Guidance	Yes	N/A
Section 7(a)(2) of the ESA	X	
EFH provisions of the Magnuson-Stevens Act		X
Section 106 of the NHPA	X	
Tribal Trust	X	
Section 401 of the Clean Water Act	X	
CZMA	X	
Wild and Scenic Rivers Act		X
Section 408 - 33 USC 408		X
Corps Wetland Policy (33 CFR § 320.4(b))	X	
Other: N/A		

12.0 Special Conditions

12.1 Special conditions and Requirements

Are special conditions required to ensure minimal effects, ensure the authorized activity is not contrary to the public interest and/or ensure compliance of the activity with any of the laws above? Yes

12.2 Required Special Conditions

1. Prior to the commencement of any work authorized by this permit, you shall advise the project manager in writing at least two weeks in advance of starting work authorized by this permit. Please send notification to Melissa Nash at melissa.a.nash@usace.army.mil. Alert the project manager of the anticipated start date of the authorized activity and the name and telephone number of all contractors or other persons performing the work. A copy of this permit and drawings must be provided to the contractor and kept on site at all times, available to any regulatory representative during an inspection of the project site.

2. The time limit for completing the work authorized ends on July 8, 2045. Should you be unable to complete the authorized activity in the time limit provided, you must submit your request for a time extension to this office for consideration at least one month before the permit expiration date.

3. You must sign and return the enclosed “compliance certification” form within 30 days of completion of the project, including any required mitigation. Your signature on this form certifies that you have completed the work in accordance with the permit terms and conditions.

4. You shall submit Final Plans and Specifications for authorized activities for written Corps approval prior to initiation of permitted activities.

5. You are prohibited to destruct or alter waters of the U.S (including wetlands) other than those impacts authorized under this permit. The extent of authorized wetland and ditch impacts are depicted on the drawing entitled “SPSA Cells VIII and IX Subgrade Plan” dated January 9, 2024, by HDR.

6. You must clearly mark in the field in a highly visible manner, such as 4-foot high orange construction fencing or barrier fencing, the avoided wetlands within Cells VIII and IX (those areas that will not be impacted under this permit) that are located within 50 feet of any proposed clearing, excavation, and construction activities prior to commencing work onsite to ensure that additional wetlands are not inadvertently impacted during construction activities.

7. You must countersink all pipes and culverts placed in streams at both inlet and outlet ends. Pipes that are 24” or less in diameter shall be countersunk 3” below the natural stream bottom. Pipes that are greater than 24” shall be countersunk

6” below the natural stream bottom. The countersinking requirements do not apply to bottomless pipes/culverts or pipe arches. In sets of multiple pipes or culverts (with bottoms) at least one pipe or culvert shall be countersunk at both the inlet and outlet to convey low flows.

8. When countersinking culverts you must ensure reestablishment of a surface water channel (within 15 days post construction) that allows for the movement of aquatic organisms and maintains the same hydrologic regime that was present pre-construction (i.e. the depth of surface water through the permit area should match the upstream and downstream depths). This may require the addition of finer materials to choke the larger stone and/or rip rap to allow for a low flow channel.

9. You must comply with the Stipulations of the executed Memorandum of Agreement entitled *“Memorandum of Agreement Among Southeastern Public Service Authority of Virginia and the Virginia State Historic Preservation Office and the Norfolk District, U.S. Army Corps of Engineers and the Nansemond Indian Nation”* dated May 19, 2025, for the SPSA Regional Landfill Expansion in Suffolk, Virginia.

10. As specified in the above mentioned MOA, the Permittee shall ensure that the following provision is included in all construction contracts for land disturbance work on the Undertaking: “If previously unidentified historic properties or unanticipated effects to historic properties are discovered during construction, the construction contractor will immediately halt all activity within a one hundred (100) foot radius of the discovery, notify the SPSA of the discovery and implement interim measures to protect the discovery from looting and vandalism.” Stipulation III of the MOA provides additional requirements.

11. You must follow a time of year restriction prohibiting the cutting of trees from December 15 to February 15 **and** April 1 to July 15 of any year to minimize impacts to federally protected bat species under the Endangered Species Act of 1973.

12. When practicable, limit tree and shrub clearing between March 15 and August 15 of any given year to reduce impacts to resident and migratory songbird nesting populations.

13. To determine if secondary wetland impacts occur within the avoided wetland area in Cells VIII and IX, invasive plant species monitoring is required. An Invasive, Nuisance, and Undesirable (INU) Species Management Plan is to be submitted to the Corps within 60 days of permit issuance. Baseline conditions for invasive species will be assessed within the area along the boundaries of Cells VIII and IX and at the photo monitoring locations within this area (shown on Baseline Monitoring Map in the INU Plan) prior to the tree removal and grading within the impact portions of Cells VIII and IX. An invasive species inventory map depicting

the location (acres) and extent (coverage) of the individual invasive species is to be completed within this area and at the photo monitoring locations prior to any clearing and grading in the permitted portions of Cells VIII and IX as discussed in the INU Plan. Invasive species plant monitoring, within the established monitoring area and photo locations, will commence within one year of tree clearing and grading. Monitoring frequency will be discussed in the INU Plan. If the invasive species monitoring indicates that a substantial increase in invasives species has occurred, per the INU Plan, then management strategies discussed in the INU Plan, will need to be addressed with the Corps.

14. To determine if secondary wetland impacts occur within the avoided wetlands in Cells VIII and IX, additional wetland delineation data collection will be required. Wetland delineation data should be collected at the established photo monitoring locations after excavation and dewatering of the cells begins. Data sheets will be completed every five (5) years. Data collection can be phased out after liner construction and sufficient ballast (waste) has been placed within each landfill phase closest to the monitoring locations. If long-term wetland data indicates that the area is no longer a wetland (according to the applicable regulatory definition), then additional wetland mitigation may be required.

15. To compensate for permanent impacts to 109.64 acres of forested wetlands, you are required to provide 219.28 wetland credits, based on application of the Norfolk District standard 2:1 ratio. You have purchased 159 wetland mitigation bank credits and will preserve 621.46 acres of forested wetlands, which equates to 62.15 credits at a standard 10:1 ratio for preservation. In combination, the bank credits and preservation credits equal 221.15 credits, satisfying the requirements for compensatory mitigation. We are in receipt of the evidence that you purchased 83 wetland bank credits from the Chesapeake Mitigation Bank and 76 wetland bank credits from the Davis Mitigation Bank. Both mitigation banks are within the approved service area of the impact site. The Corps approved Permittee Responsible Mitigation (PRM) Plan also includes preservation of 1.89 acres of emergent wetlands, 0.9 acres of open water, 0.6 acres of perennial stream, 0.08 acres of ditch and 4.74 acres of upland. In total, 629.67 acres will be preserved as compensatory wetland mitigation as depicted in the documents entitled “Compensatory Mitigation Plan Part 1” dated November 11, 2024, and “Compensatory Mitigation Plan Part 2” dated January 27, 2025, prepared by HDR.

16. As mitigation for impacts to Canebrake Rattlesnake habitat, you are proposing to preserve 112.89 acres of forested wetlands, emergent wetlands, open water, perennial stream, ditch, and upland onsite, as described in the compensation plan entitled “Compensatory Mitigation Plan Part 1” dated November 11, 2024, and “Compensatory Mitigation Plan Part 2” dated January 27, 2025, prepared by HDR.

17. You are responsible for meeting all the components of the PRM compensatory mitigation requirements associated with this permit authorization and the long-term management of the compensatory mitigation project. The Permittee is responsible for and must comply with the Performance Standards and monitoring requirements as defined in the Compensatory Mitigation Plans and the Conservation Easements. The responsibility can only be transferred if and when the permit is transferred to another party and then only to the new permit recipient.

18. You will install and maintain signage around the perimeter of the preservation areas alerting anyone to the preservation status of the areas.

19. You must record Conservation Easements that serve as the PRM Site Protection Document prior to commencing any work in wetlands authorized for impacts. You must provide a copy of the final recorded Site Protection Document and the associated exhibits and schedules, including surveys to the Corps within 15 days of recordation. The Corps will receive notification at least 60 calendar days in advance of any modification, termination, or revocation.

20. The PRM Long-Term Management Fund may be funded through a single lump sum payment or through installments. The PRM Long-Term Management Fund must be fully funded within 5 years of permit issuance or prior to start of work within wetlands.

21. If a project specific condition of this permit cannot be met, then you must apply for a permit modification. Any proposed permit modification will be coordinated with the Virginia Department of Environmental Quality, U.S. Fish and Wildlife Service, and the Environmental Protection Agency Region III.

Rationale:

Special Conditions 1-5 ensure that that the applicant complies with the plans and specs and timeframes outlined.

Special Condition 6 addresses avoidance of the remaining wetlands onsite to prevent future wetland impacts.

Special Conditions 7 and 8 pertain to minimizing impacts to aquatic resources by properly installing culverts.

Special Conditions 9 and 10 ensure compliance with Section 106 of the NHPA.

Special Condition 11 minimizes impacts to the federally protected bats and is required per the Section 7 consultation with FWS.

Special Condition 12 was suggested by VDWR and EPA to reduce impacts to migratory birds protected under the Migratory Bird Act.

Special Conditions 13 and 14, which were developed in consultation with EPA, apply to the avoided wetlands within Cells VIII and IX that are not authorized for impact. The conditions provide monitoring requirements to identify any secondary impacts to wetlands within the avoided wetlands.

Special Condition 15 pertains to the compensatory mitigation requirement and is required to ensure no net loss of wetlands.

Special Condition 16 addresses the canebrake rattlesnake mitigation, which is being offered by the applicant to compensate for impacts to a state listed species.

Special Conditions 17-20 address the permittee responsible mitigation requirements.

Special Condition 21 provides specifications for permit modifications.

13.0 Findings and Determinations

13.1 Section 176(c) of the Clean Air Act General Conformity Rule Review

The Clean Air Act establishes conformity requirements, providing that "[n]o department, agency, or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity which does not conform to an [Clean Air Act] implementation plan." 42 U.S.C. § 7506(c)(1), (5). The Clean Air Act's implementing regulations provide that "a conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a nonattainment or maintenance area caused by a Federal action would equal or exceed any of the rates in paragraphs (b)(1) or (2) of this section." 40 C.F.R. § 93.153(b). This is the *general* conformity requirement, and it provides that a general conformity analysis must be conducted for Federal projects that are in areas of nonattainment or maintenance for a criteria pollutant. The Hampton Roads region is not in nonattainment or maintenance for any criteria pollutant.

Regardless, USACE has determined that the activities proposed under this permit will not exceed de minimis levels of direct or indirect emissions of a criteria pollutant or its precursors and therefore any emissions would be exempted by 40 CFR Part 93.153.

13.2 Presidential Executive Orders (EO)

13.2.1 EO 11988, Floodplain Management

The FEIS at Chapter 3 Subsection Water Resources, Floodplains considers impacts to floodplains. The project will have minor impacts on floodplains as discussed in the FEIS and in Section 7 of this ROD.

13.2.2 EO 13112, Invasive Species, as amended by EO 13751

The evaluation provided above included invasive species concerns in the analysis of impacts at the project site and associated compensatory mitigation projects.

13.2.3 EO 13212 and EO 13302, Energy Supply and Availability

The proposal is not directly associated with energy production; however, the Regional Landfill does contain a renewable natural gas facility, which converts landfill gases into pipeline-ready natural gas that is sold to the energy market. The project will eventually contribute to the energy production.

13.3 Compliance with the Section 404(b)(1) Guidelines

Having reviewed and considered the evaluation in this ROD, I have determined that the proposed discharge complies with the 404(b)(1) Guidelines, with the inclusion of the appropriate and practicable special conditions to minimize pollution or adverse effects to the affected ecosystem, including the compensatory mitigation.

13.4 Public Interest Determination

Having reviewed and considered the information in this ROD, I find that the proposed project is not contrary to the public interest. The permit will be issued with appropriate conditions included to ensure minimal effects, ensure the authorized activity is not contrary to the public interest and ensure compliance of the activity with any of the authorities identified in Section 11.

PREPARED BY:

NASH.MELISSA.A.1229157481 Digitally signed by NASH.MELISSA.A.1229157481 Date: 2025.07.01 15:04:04 -04'00'

_____ Date: 7-1-2025

Melissa Nash
Environmental Scientist

REVIEWED BY:

KUBE.PETER.R.1228832908 Digitally signed by KUBE.PETER.R.1228832908 Date: 2025.07.08 09:01:49 -04'00'

_____ Date: _____

Peter Kube, Chief
Eastern Virginia Regulatory Section

REVIEWED BY:

PRISCO-BAGGETT.KIMBERLY.A.1241939754 Digitally signed by PRISCO-BAGGETT.KIMBERLY.A.1241939754 Date: 2025.07.08 10:05:59 -04'00'

_____ Date: _____

Kimberly A. Prisco-Baggett, MBA, PMP
Acting Chief, Regulatory Branch

APPROVED BY:

FUNKHOUSER.ANTHONY.CHARLES.1049342876 Digitally signed by FUNKHOUSER.ANTHONY.CHARLES.1049342876 Date: 2025.07.08 12:02:50 -04'00'

_____ Date: _____

Anthony C. Funkhouser, PMP
Lieutenant Colonel, U.S. Army
Deputy District Commander