Sulfco, LLC SeaPoint Marine Terminal Project Description Chatham County, Georgia

Sulfco, LLC, a subsidiary of Dulany Industries, is proposing the development of a multi-use marine terminal on an approximately 226.67-acre site located at 100 Seapoint Boulevard in Savannah, Chatham County, Georgia. The project site is a portion of the former Tronox/Kerr-Mcgee industrial facility. The following information is submitted as support documentation in association with the attached application requesting authorization to impact waters of the U.S. pursuant to Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and the Coastal Marshlands Protection Act of 1970 pursuant to the Official Code of Georgia Annotated, Part 12-5-286 (OCGA). While the project site totals 226.67 acres based on the project area survey landward of the Coastal Marshlands Protection Act jurisdiction line, the permit plans give a project area of 268.41 acres which includes the additional open water area out to the existing Savannah River Navigation Channel.

1.0 Introduction

Sulfco, LLC (Applicant) is proposing the redevelopment of the 226.67 -acre industrial site and the construction of a multi-use marine terminal at the SeaPoint Industrial Complex located at 100 SeaPoint Boulevard (formerly 1 Kerr-McGee Road), Savannah, Georgia 31404. The project site is located adjacent to the Savannah River (mile marker 12) with the center coordinates being latitude 32.084110° and longitude -81.022792°.

2.0. Background

Development and manufacturing operations on the site were originally initiated in 1955 when American Cyanamid Company developed the property for the manufacturing of titanium dioxide, which is used as pigment in many products including paint, plastic, paper and sunscreen. Kemira, Inc. purchased the property/project in 1985 and continued operations for the development of pigments. In 2000 Kerr-McGee Chemical, LLC acquired the site from Kemira and continued the titanium dioxide pigment production through two different processes including the sulfate process and the chloride process. The sulfate plant separated a low-grade ore using sulfuric acid (produced on-site at the sulfuric acid plant) to separate titanium from the ore and operated from 1955 until 2004. The chloride plant utilized chlorine to separate the titanium from a highergrade ore and operated from 1970 until 2009. Through this ownership, Kerr-McGee employed over 700 local residents and 300 contract workers for the manufacturing of titanium dioxide. Kerr-McGee Chemicals created Tronox Pigments (Savannah), Inc. in November of 2005. Kerr-McGee transferred all properties, assets, and environmental liability into the newly created Tronox Pigments (Savannah), Inc. The sulfate plant was shut down in September 2004, and the chloride plant was shut down in July 2009. The 2009 economic recession caused Tronox Incorporated (including Tronox Pigments (Savannah), Inc. to file petitions on January 12, 2009 with the United Stated Bankruptcy Court under Chapter 11 of the Bankruptcy Code. The sulfuric acid plant remains operational on the site.

In December 2009, Tronox completed the idling of the Savannah operations. Tronox subsequently removed all proprietary technology related to the titanium dioxide operations and collected inventories to realize net value. On February 14, 2011, and upon Tronox's emergence from bankruptcy, the Savannah site was transferred to an environmental trust. Pursuant to this plan for reorganization, Tronox entered into an environmental settlement agreement by which all of its rights, title, and interest with respect to the Savannah facility were assigned to Greenfield Environmental Savannah Trust, LLC as trustee of the Savannah Environmental Trust. The Trust

was created with the State of Georgia and the United States of America as beneficiaries of the site. The overall purpose of the Trust is to perform environmental remediation and restore the inherent value of the site for future development. The on-site investigations and clean up/remediation activities were completed by Sulfco, LLC under the oversight of the Georgia Department of Natural Resources Environmental Protection Division (GADNR-EPD) and the U.S. Environmental Protection Agency (USEPA), both of which were instrumental in creating the innovative design and criteria for the overall remediation of the site and ultimate sale of the site to Sulfco, LLC.

The proposed project site is located along the northeast river bank of the Seapoint Terminal facility, which was formerly part of the Tronox/Kerr-McGee Pigments (Tronox) site. The project site is bound to the north by the Savannah River. Land east and southeast of the property consists of marshes previously deeded to the State of Georgia. Access to the site is via Seapoint Boulevard (formerly known as Kerr-McGee Road), which intersects East President Street to the south. Land west of the project site consists of a mixture of heavy industrial and commercial facilities. The proposed multi-purpose berth area is located along the northeast bank of the Savannah River.

The Tronox site is listed on the Hazardous Site Inventory (HSI) and is undergoing a corrective action plan in accordance with the Georgia EPD and USEPA approved Prospective Purchaser Corrective Action Plan to address contaminant source areas. All hot spots within the proposed project area have been delineated and remediated via excavation and disposal at an EPD approved facility (Subtitle D Landfill).

In January 2013, the Savannah Trust offered the property for sale through a competitive bidding process. Sulfco's parent company, Dulany Industries, was in the process of evaluating properties along the east coast for investment/development opportunities, and through careful evaluation made the determination that the SeaPoint project is a very unique project and fit their search criteria of project size, location, access to deep water, and with existing infrastructure. The key to the Sulfco's proposal for site acquisition was the multi-use approach and to incorporate existing facilities with new facilities utilizing on-site resources of solar power and steam power to create a sustainable model of redevelopment co-located on the site. Through coordination with the USEPA and EPD, a July 2014 Purchase and Sale Agreement (PSA) identified Dulany Industries, Inc (Dulany), as the selected Prospective Purchaser of the site over several other bidders. The PSA was subsequently assigned to Sulfco, LLC (Sulfco), a single purpose wholly owned subsidiary of Dulany. Transfer of the property to Dulany/Sulfco was completed in September 2017.

The purchase agreement included the responsibility to complete remediation clean up, which is in the final stages of being completed with oversight from USEPA and EPD. Through this purchase and remediation clean-up, Sulfco initiated planning for the redevelopment of the site into the proposed SeaPoint Industrial Terminal Complex over a year ago. The proposed plan is to redevelop/expand the industrial site into a multi-use marine terminal to accommodate partnered logistic firms, material handlers, bulk commodities transporters, and other terminal operations.

3.0 Project Overview:

As outlined above, the purpose of the proposed project is to complete the remediation efforts per the agreement with the Environmental Trust and to develop a marine terminal on an existing industrial site adjacent to the Savannah River collocated with support manufacturing facilities and existing utilities in a sustainable redevelopment model. The proposed SeaPoint Marine Terminal is proposed as a general purpose multi-use marine terminal on the Savannah River to provide berthing facilities for the projected growth of cargo throughput in the Savannah Harbor.

Specifically, the SeaPoint site has existing paved access to President Street, an internal road network, a security gate, power, water, wastewater treatment facilities, rail, steam, heavy industrial zoning, and 60,000 square feet of existing office/research and development buildings immediately adjacent to the project site. The site has approval as a Federal Opportunity Zone, which recognizes economic development projects/opportunities and aims to drive long-term private investment into the redevelopment of real-estate of underserved communities. The project site is located on the bank of the Savannah River and federal navigation channel (approximately 3,000 linear feet of Savannah River frontage), and with existing rail and access to President Street, the site is ideally situated for redevelopment into a multi-use marine terminal.

4.0 Existing Site Conditions

As outlined above, the majority of the site was previously developed and used as an industrial facility for the production of titanium dioxide. The western half of the 226-acre project site includes existing internal roadways, concrete building pads from previous uses, and existing rail lines where previous facilities were located for the production of titanium dioxide. The eastern half of the site included various industrial uses including stockpile areas, settling ponds, stormwater treatment facilities, roads, and other infrastructure associated with the former industrial operations. As stated previously, remediation has been completed on the western portion of the property and is nearing completion on the eastern portion. All areas associated with the former industrial operation are filled, graded, and/or capped with soil material and grassed as part of the reclamation process. To the east and south, outside of the project site limits, is open salt marsh which was deeded to the State of Georgia on September 29, 2017. The southern portion of the project includes a previously developed site that was the City of Savannah incinerator facility that was closed in 2008 and removed in 2012. The paved driveway, concrete pad, and other adjacent concrete pad structures are all that remain of the incinerator facility. There is freshwater wetland area immediately north of the old incinerator facility and south of the old Tronox facility. The northern portion of the project adjacent to the Savannah River is mostly an armored bank with rip/rap from the upland down to the mean low water line. There are pockets of vegetated marsh, but most of the river frontage is existing rip/rap along the slope of the riverbank down to the open water habitat of the Savannah River.

With the previous industrial land use, the 226-acre project site is mostly upland with freshwater and saltwater fringes along the edge and mostly outside of the project footprint. Descriptions of each are included below:

A. Developed Upland:

Access to the new marine terminal will be via the existing paved drive to the old incinerator plant and through an existing developed upland industrial site. The habitats within the existing upland area include paved roadways, existing rail lines, concrete building pads, and open sparsely vegetated upland areas that were previously associated with the industrial development.

B. Tidal Wetland/Open Water:

The Savannah River interface at the location of the proposed berth within the project site includes an armored rip/rap bank along the upland/wetland line which slopes down to the mean low tide line. Through this mostly rip/rap rocked area there are small areas along the river bank that are vegetated saltmarsh that include sea oxeye (*Borrichea frutescens*) and saltmeadow cordgrass (*Spartina patens*) along the higher elevations. Moving lower

in topography along the slope, the vegetation changes to needle rush (*Juncus roemeranus*) with shrub species including saltwater false willow (*Baccharis angustifolia*) and false willow (*Baccharis halimifolia*) with red cedar located closer to the upland. Further down the slope into the intertidal zone, the vegetation transitions to more obligate salt tolerant species dominated by smooth cordgrass (*Spartina alterniflora*). Channelward of the vegetated saltmarsh is open water and intertidal mudflat habitat associated with the Savannah River. Total vegetated salt marsh habitat within the intertidal zone is approximately 1.24 acres.

C. Freshwater Wetland:

North of the closed incinerator site and along the eastern edge of the proposed project limits there is a freshwater wetland fringe that is dominated with common reed (*Phragmites australis*). Other species included within this freshwater fringe habitat include wild rice (*Zizania aquatica*), soft rush (*Juncus effusus*), and other sedges. Overstory trees include eastern red cedar (*Juniperus virginiana*), Chinese tallow (*Sapium sebiferum*), and a few red maple (*Acer rubrum*).

5.0 Proposed Site Development Plans

The proposed project consists of an expansion of the SeaPoint facilities and includes construction of a general purpose marine terminal on an existing industrial site adjacent to the Savannah River in Chatham County, Georgia. The new wharf will be approximately 3,000 feet long and is located on the eastern portion of the SeaPoint property. The proposed terminal will be designed to accommodate the loading and unloading operations for bulk goods, break bulk cargo, and a broad range of maritime transported goods and services. The terminal has been designed to operate and function as a multi-purpose facility to accommodate a variety of ships that will call on SeaPoint for imports and exports.

Specifically, the proposed project includes 1.8 acres of impacts to freshwater wetland associated with the improvements to an existing road for access to the terminal near the location of the old incinerator facility. The proposed access to the terminal will be through the old incinerator facility which is east of SeaPoint Boulevard. The applicant proposes to improve and widen the existing 2-lane paved road to facilitate access into the facility (1.01 acres of wetland impact). The access road will be widened within upland area at the location of the old incinerator where the terminal entrance gate and truck scale areas will be located. From the gate and scales, the road will extend across wetland area (0.79 acres) to developed upland within the SeaPoint project site and will provide access to the terminal facilities.

The wharf is to be constructed within all upland area landward of the CMPA/Section 10 jurisdiction line and will include a proposed king pile wall which will consist of 48" diameter pipe piles spaced every eight feet on center and AZ sheetpile spacers in between. This king pile wall holds the upland material back from the water as well as provides pile supports for the waterside loading equipment and operations. The proposed terminal construction sequence/schedule will be as follows:

- 1. Excavate the upland area along the king pile wall to Elevation 10. The king pile wall will be installed in upland to an embedment depth of at least elevation -56. This will provide stability for the unbraced height along the berth, capacity for the crane/loader waterside beam, and strength to prevent overturn from the landside soil pressures.
- 2. Concurrent with the installation of the king pile wall, the applicant will begin construction on the 19.74-acre upland dredged material containment area (DMCA) located on the southern portion of the project site. The DMCA will be designed to accommodate the dredged material

from the proposed dredging operations in phases. The DMCA will be designed with enough storage to allow the sediments to settle with each proposed dredging phase before ultimately outfalling into the existing on-site NPDES treatment facility. The estimated dredge volume storage in the DMCA is 500,000 cubic yards with 14-foot high dikes and maintaining 4-feet of freeboard from the top of the dredged material to the top of the dikes. After each dredging phase, the DMCA will be managed to dry the dredged material and eventually remove the material from the DMCA to suitable upland areas on the SeaPoint site or hauled to an upland /storage disposal area. This phased dredging and maintenance process will allow all of the proposed dredging operations (including maintenance dredging) to process the dredged material through the on-site upland DMCA.

- 3. Once the king pile wall is installed, the upland material on both sides will be excavated with mechanical equipment. The water side upland area will be excavated to a depth of at least Elevation -42. This excavation task will be completed landward of the jurisdictional line at a slope down of no more than 3:1. The excavated upland material will be hauled/transported to upland areas on the SeaPoint project site.
- 4. The upland material on the landside of the king pile wall will be removed at a slope of 3:1 from the wall. The material will be replaced with clean sands suitable for structural stability to support the future wharf. The king pile wall will integrate a pile supported relieving platform and fender system to accommodate the horizontal berthing reactions from the design vessels. This will be installed concurrent with the excavation of the material behind the king pile wall. The upland excavated material will be placed on other upland areas within the SeaPoint site.
- 5. Once the work in upland for the construction of the king pile wall is complete, the area within the Project Limits below the jurisdiction line in Phase I (western 1,500 linear feet of proposed wharf) will be dredged (after removing the existing rip-rap armor on the existing shoreline: approximately 3,000-sy) to an initial depth of elevation -30. The Phase I initial dredging to elevation -30 will remove an estimated 400,000 cubic yards of material which will be pumped into the DMCA. This material in the initial Phase I dredging is predominantly silt to silty sands and will bulk 20% when removed hydraulically. Dredged material will be placed in the on-site upland disposal facility (DMCA).
- 6. Once the Phase I initial depth material is dried and removed from the DMCA, the Phase I finish depth dredging to elevation 42 will be completed. This Phase I final depth dredging is estimated to remove an additional 700,000 cubic yards of mostly clay material. Management and maintenance of this material will be on-going within the DMCA during this dredging operation to ensure the DMCA continues to function as designed to prevent sediments from outfalling into the NPDES outfall facility. Alternative dredging operations including clamshell may be utilized concurrent with hydraulic dredging when necessary.
- 7. After the Phase I area is complete and operational, the Phase II dredging operation will begin by using the clay from the Phase I dredging to increase the height of the dikes on the perimeter of the DMCA to 20 feet, which will increase the storage capacity in the DMCA to 700,000 CY. The Phase II dredging will be completed in a similar fashion as the Phase I operation with an initial dredging down to elevation -30 which will produce 600,000 cubic yards of material to be pumped to the DMCA. After the initial depth is completed for Phase II, the dredging will continue down to elevation -42 which will produce an estimated 1,000,000 cubic yards of material. All dredged material will be placed within the upland disposal facility.
- 8. The DMCA will be designed and managed to accommodate the proposed dredged material and future maintenance dredging through the life of the project. Annual maintenance dredging is estimated to be 250,000 cubic yards for the entire project (both Phase I and Phase II area). The design of the DMCA is proposed to discharge less than 20% TSS from the disposal site and free of other constituents of concern before being routed though the existing onsite wastewater treatment system. The outfall from the DMCA and onsite NPDES wastewater treatment system

extends to the east of the proposed wharf where it will ultimately discharge back into the Savannah River.

Proposed impacts associated with the dredging activity will include the dredging of 6.6 acres of intertidal area including 1.24 acres of vegetated marsh and 50 acres of existing open water. The total proposed dredging is 2,700,000 cubic yards. The Applicant has submitted a Sediment Sampling Analysis Plan dated August 12, 2019 attached to this application for USACE review and approval. The sediment analysis will be completed and results submitted for approval prior to initiating the dredging activities.

6.0 Proposed Activities in Jurisdiction

All activities proposed for the project are water dependent and necessary to provide a new berth for water borne vessels. Activities include construction of a new berth in uplands as outlined above, installation of the main access road to the new berth which will impact 1.8 acres of freshwater wetland, dredging within the intertidal zone to include 6.60 acres (including 1.24 acres of vegetated coastal marsh) and dredging of 50.25 acres of open water to the appropriate project depth to accommodate ship access from the navigation channel to the berth. The proposed wharf structures will be positioned no closer than 800 feet from the federally maintained navigational channel line and the Savannah River is approximately 2,300 feet wide at the location of the proposed project.

The majority of the proposed dredging will be in existing open water habitat to provide adequate depths for the proposed vessels to use the facility. The area of the new wharf will have similar subsurface depths as the adjacent navigational channel to allow for ships to access the new wharf. The proposed dredge elevation at the face of the berth would be -42.0 MLW (plus 2 feet of over dredge) with a 17-foot wide trough below the fender at -45.0 MLW for the section parallel to the new berth. The initial dredging will be conducted via hydraulic cutterhead method, and future maintenance dredging activities will be necessary to maintain the required depths. Future maintenance dredging will be conducted by agitation or hydraulic method and will not exceed 250,000 cubic yards annually. The dredged material will be disposed of at the on-site upland DMCA. The dredging activities will impact a total of 58.09 acres of jurisdictional area including 50.25 acres of open water and 6.60 acres of intertidal areas (including 1.24 acres of vegetated marsh). The total volume of material to be removed by dredging totals 2.7 million cubic yards.

7.0 Project Purpose

The basic project purpose must be known to determine if a project is water dependent. The basic purpose of this project is to construct a multi-use deep water marine terminal which is a water dependent activity. It is therefore assumed that alternative sites would have similar impacts and a formal evaluation of alternative sites is not required.

The overall project purpose is to construct a multi-purpose marine terminal facility by expanding/improving the existing SeaPoint Industrial Complex.

Justification to support the project is closely associated with the existing facilities on the site combined with the proposed terminal improvements on the eastern portion of the property. The University of Georgia's Center for Agribusiness and Economic Development completed a study in July 2019 quantifying the economic impact of future and potential operations at the SeaPoint Industrial Terminal Complex and the effects these operations may have within Chatham County and the State of Georgia (Kane and Wolfe, UGA, College of Agriculture and Environmental Sciences, Center Report CR-19-04, July, 2019). The report captured the existing chemical manufacturing operations (existing sulfuric acid operation), existing warehousing and storage

facilities on the site, existing research and development office complex, and proposed marine terminal. The direct economic effect of the proposed marine terminal project includes 1,045 employees and an annual revenue of \$150.0 million dollars. When the marine terminal is combined with the existing support facilities on the site, the direct economic impact jumps to 1,703 employees and total annual revenue of \$531.0 million dollars for the project.

The report concludes that the estimated revenue of \$531 million, combined with employee spending and sales in input sectors resulting from development of this facility and associated industries could impact the Georgia economy by \$970 million dollars. Additionally, production within the proposed facility directly accounts for 1,703 jobs and supports in total more than 4,466 jobs in the Georgia economy which adds up to over \$225 million in labor income when considering all the related sectors and support facilities within the economy. The report concludes there will be a ripple effect from the proposed facility and other industries indirectly linked to the facility will experience increases in revenues and employment, demonstrating linkages between these sectors for input purchases and employees spending their earned income.

The proposed project includes the redevelopment of an existing industrial site to create a multiuse deep water marine terminal capable of handling a variety of industrial cargo needs and providing a wide array of services. The industrial site has nearly completed a remediation program as per the agreement with the Environmental Trust. This site has existing infrastructure, utilities, office space, warehousing, and access to support the proposed facility. The proposed SeaPoint Marine Terminal, together with existing and anticipated support facilities, is expected to have significant positive economic impacts to Chatham County and the State of Georgia. The proposed project is economically justified and within the public interest.

8.0 Alternatives Analysis

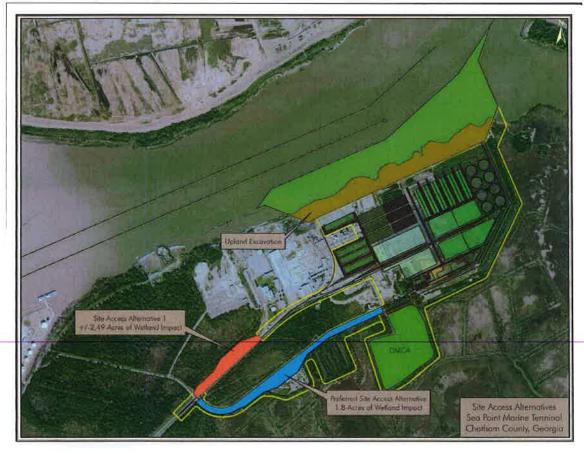
Prior to deciding on a final location, plan, and design for the proposed multi-use shipping terminal, the applicant completed a thorough due diligence in which various alternative plans were evaluated. Off-site alternatives are not practicable for the project as this project is an improvement to an existing industrial facility, the property is owned by the applicant, and the project purpose is to construct a marine terminal on the Savannah River which is water dependent. Therefore, alternatives were limited to on-site development alternatives to satisfy the overall project purpose and avoid and minimize impacts to wetlands to the greatest extent practicable.

8.1 Site Access Road Alternatives:

The first planning efforts included locating the preferred route for the terminal access road, main gate and scales that would not interrupt or alter existing and ongoing operations at the SeaPoint industrial facility, mainly including the existing acid plant, sulfer tanks, existing rail, and above ground steam utilities. The existing SeaPoint Boulevard extends northeast from President Street into the center of the existing development which includes guard house, office buildings, warehouses, and rail to serve the existing acid plant and the production of sulfuric acid. The existing rail parallels SeaPoint Boulevard on the east side from President Street into the existing plant. Once SeaPoint Boulevard passes the guard house, the rail splits and extends through the plant for staging of rail cars for the production of sulfuric acid. In addition to the active rail operations, there is an existing 60,000 square foot research and development office complex immediately west of the main access road, and existing warehouses to support the Seagate Terminal operations are further to the north and west. In addition, wetlands parallel the SeaPoint Boulevard to the west, so any shift in the road to the west would require impacts to additional wetland area.

Alternative Access 1 – Utilize existing SeaPoint Entrance: As outlined above, utilizing the existing SeaPoint Boulevard for access to the proposed terminal will include expanding the road to the west into approximately 2.49 acres of wetland for the development of a new gate entrance and scale area as expansion to the east is not feasible with existing rail and utilities to the east of the existing road. Additionally, once through the gate and scale area, the access road will extend directly into the existing industrial facility and will require multiple rail line crossings through existing overhead steam utilities and adjacent to an existing steam power generation equipment. With the existing sulfuric acid facility located in this immediate area, relocating rail, steam utilities, and existing operating industrial facilities is not feasible. Relocating these existing facilities is cost prohibitive to allow for a new terminal access road. For these reasons, utilizing the existing SeaPoint Boulevard through the existing SeaPoint gate and existing facility for access to the new terminal is not a feasible alternative.

Site Access Alternatives Exhibit



Alternative Access 2 – Utilizing the old Incinerator Drive and Incinerator Plant Site: This proposed access includes improving the existing incinerator access road, developing the gate and scale area on the old incinerator upland pad, and then extending a new road across freshwater wetland area to upland where the main access to the new terminal will be from the south so traffic can be directed to the appropriate loading area on the terminal without interrupting existing ongoing industrial operations. This alternative will require one rail crossing to the east of SeaPoint Boulevard when turning on the incinerator road, will require impacts to a total of 1.8 acres of freshwater wetland for two freshwater wetland road crossings, and avoids allowing traffic through the existing acid processing facility and rail operations. This access alternative has less

impacts to wetlands, avoids potential impacts to existing plant operations, directs traffic into the southern side of the proposed facility, and is preferred as it utilizes existing developed area for scale and gate access. For this reason, Alternative 2 is the preferred site access alternative.

8.2 Marine Terminal Planning Alternatives:

Several alternatives were evaluated to determine the preferred footprint for the proposed shipping terminal. The primary selection criteria included distance to existing navigation channel and impacts to jurisdictional area. The alternatives considered and evaluated are outlined below:

1. Build new pile supported wharf to existing Pier Head Line: This alternative would include installing a bulkhead near the existing jurisdiction line and extending a pile supported concrete wharf approximately 250 feet into the waterway to the existing pier head line. Based on the irregular shape of the shoreline, this alternative would require filling/impacting approximately 1.2 acres of coastal marshlands and Section 10 Waters for the installation of the bulkhead, and would require the installation of hundreds of pilings in the waterway to support the pile supported concrete wharf that would extend approximately 250 feet over the waterway. The shading impact to open water would be approximately 16.1 acres. This alternative would locate the wharf much closer to the Navigation Channel and substantially lessen the dredging requirement down to 32.3 acres. The existing pier head line is approximately 200 feet from the south side of the navigation channel. Although this alternative would minimize the dredging requirement and provide a cost savings to the applicant, this alternative is not feasible as the proposed wharf would be too close to the navigation channel for ships to pass in the channel with a ship at berth along the proposed wharf. For this reason, utilizing and building the proposed wharf to the existing pier head line is not a practicable alternative.

Pile Supported Terminal Exhibit



2. Build Wharf at Existing Jurisdiction Line: This alternative would include installing a bulkhead at the jurisdiction line and back filling to an appropriate height to get the wharf to the necessary elevation for loading and unloading ships (approximately 20-feet above MLW). Because of the irregular shape of the jurisdiction line, filling/impacting approximately 1.2 acres of coastal marshlands and jurisdictional area would be required for the bulkhead installation. Dredging would be required from the seaward face of the bulkhead out to the navigation channel for ship access to the berth totaling approximately 55.4 acres (50.52 acres of open water and 5.4 acres of intertidal zone). Once complete, the seaward edge of the berth would be approximately 450 feet from the southern edge of the navigation channel. Industry standard for this section of the Savannah River suggests that the minimum distance for safe passage from a ship traveling in the navigation channel to a ship tied at berth is 500 feet. This alternative would lessen the total dredge/excavation quantity compared to the preferred alternative, but requires filling coastal marshlands and jurisdictional Section 10 waters for the development of the berth and pile driving within the Savannah River for the bulkhead which has the potential to impact certain fish species within the river. Most importantly is the distance to the Navigation Channel, which would be closer to the channel than industry standard recommends for this section of the Savannah River and could be a navigation/safety issue for ships traveling in the channel with a ship at berth in the proposed terminal. For this reason, Alternative 2 is not a feasible alternative for the proposed berth.

Terminal at Existing Shoreline Exhibit



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3. Construct the Berth in Upland (Preferred Alternative): This alternative includes constructing the wharf within existing upland area landward of the existing jurisdiction line and includes a proposed king pile wall built in existing upland area. The proposed king pile wall will hold the upland material back from the water as excavation and dredging occur on the waterside of the structure. The king pile wall will be installed in upland with pile hammer to an embedment depth of at least elevation -56. This will provide stability for the unbraced height along the berth, capacity for the crane/loader waterside beam, and strength to prevent overturn from the landside active soil pressures. Concurrent with constructing the berth wall, the applicant proposes to begin construction on the 19.74-acre upland DMCA located on the southern portion of the project site. The upland material on both sides of the wall will be excavated with mechanical equipment. The water side upland area will be excavated to a depth of at least elevation -42 to match the Savannah River Navigation Channel authorized depth and advanced maintenance adjacent to the project. The upland material on the landside of the king pile wall will be removed at a slope of 3:1 from the wall. The material will be replaced with clean sands suitable for structural stability to support the future wharf. The king pile wall will integrate a pile supported relieving platform and fender system to accommodate the horizontal berthing reactions from the design vessels. Once the wall is complete, the area within the Project Limits below jurisdiction the line will be hydraulically dredged after removing the 3,000 square yards of existing rip-rap armor on the existing shoreline. The initial dredging depth in Phase I is elevation -30. Once the dredge elevations are set to elevation -30 in Phase I, the hydraulic dredging will continue to elevation – 42. All dredged material will be placed within the upland disposal facility. Once Phase I is complete and operational, the Phase II dredging would begin in a similar phase approach as Phase I. The DMCA will be designed and managed/maintained to accommodate the proposed dredged material and future maintenance dredging through the life of the project. Annual maintenance is proposed for the project. The design of the DMCA is proposed to discharge less than 20% TSS from the disposal site and free of other constituents of concern before being routed though the existing onsite wastewater treatment system. The outfall from the DMCA and onsite wastewater treatment system extends to the east of the proposed wharf where it will discharge back into the Sayannah River. Proposed impacts associated with the preferred alternative wharf design include dredging of 6.60 acres of intertidal area including 1.24 acres of vegetated marsh and 50.25 acres of existing open water dredging. The total proposed dredging is 2.7 million cubic yards. The Applicant has submitted a Sediment Sampling Analysis Plan dated August 12, 2019 attached to this application for USACE review and approval. The sediment analysis will be completed and results submitted for approval prior to initiating the dredging activities. While Alternative 3 (preferred alternative) proposes dredging impacts to 6.6 acres of intertidal zone, this alternative proposes no fill in jurisdiction for the development of the terminal. Additionally, the proposed terminal is constructed within upland which will minimize pile driving noise within the waterway. This alternative proposes to locate the wharf approximately 800 feet from the navigation channel which exceeds the minimum distance of 500 feet from the navigation channel. For these reasons Alternative 3 is the preferred alternative that satisfies the overall project purpose.

9.0 Avoidance and Minimization:

In order to minimize the effects of the proposed project, all development activities will be performed using best management practices to further avoid and minimize impacts to upstream and downstream waters. The proposed development alternative proposes to develop the wharf in uplands which will minimize the effects to protected species and habitats in the adjacent Savannah River. There will be no open water use of impact hammer for pile driving which will prevent fish species being harmed by elevated noise levels. All work will be performed from upland or waterborne barge as much as possible. It is anticipated that these measures will

minimize the effect of the project to not only avoided waters, but also to protected species and habitats.

10.0 Threatened and Endangered Species

The property was assessed for the potential occurrence of threatened and endangered species and habitats suitable to sustain these listed species for Chatham County, Georgia. The habitats found on site consist of industrial developed upland, freshwater wetland, open water, vegetated salt marsh, and grassed upland. The aquatic habitat could support the shortnose sturgeon, Atlantic sturgeon, west Indian manatee, loggerhead sea turtle, green sea turtle, and Kemp's ridley sea turtle. Additionally, foraging habitat may be present for wood stork, red knot, bald eagle, and piping plover. A formal Biological Assessment Report that addresses all of these species and potential impacts was completed by Sligh Environmental Consultants, Inc. and is submitted concurrently with this permit application. The report concludes that the project is not likely to adversely affect the west Indian manatee, shortnose sturgeon, Atlantic sturgeon, loggerhead sea turtle, green sea turtle, and Kemp's ridley sea turtle. It also concludes there will be no effect on all other listed species in Chatham County.

11.0 Essential Fish Habitat

The proposed waterside activities are located within coastal waters identified as Essential Fish Habitat (EFH). Sligh Environmental Consultants, Inc. completed an EFH Assessment for the project which outlines existing conditions, the proposed activities, and measures to avoid, minimize, and mitigate impacts to EFH. The report is submitted to the USACE concurrent with the permit application for review by the USACE and NMFS. The report concludes that the project would not significantly affect EFH.

12.0 Impaired Waters

The Savannah River at the project site is listed on the 303(d) list of impaired waters. Based on previous studies and available literature, the proposed dredging is expected to only impact the DO level by 0.1 mg/L in the immediate berth area and would have a negligible effect on aquatic species. When placed in context of the influences that the tides, currents, and water temperatures have on the river, the effect from the proposed dredging on DO is very small. Also, empirical data suggests that dredging does not appreciably affect DO enough to impact sturgeon. Therefore, it is not expected that the initial dredging or the future maintenance dredging would have a negative effect on DO in the harbor or on sturgeon in the vicinity of the proposed project.

13.0 Upland Component:

The upland component associated with the dredging for the proposed wharf is the 19.74 acre upland DMCA. The 19.74 acre upland DMCA is to be designed to accommodate the proposed dredge material. The design for the DMCA is to allow the hydraulic dredged material to enter the site where the solids will begin to settle within the first of three chambers. As the solids settle, water will pass through the remainder of the area and continue to allow solids to settle before reaching the controlled outfall. The clean water will then pass through a weir pipe structure and discharge into the existing NPDES outfall structure for the SeaPoint facility. The water from the DMCA will travel through the NPDES system and ultimately discharge to the Savannah River to the east of the proposed wharf. Construction activities within the upland component (DMCA) include site grading and development of the perimeter dikes to contain the dredged material. The interior will be chambered with earthen material to create three chambers to allow the dredged material to settle within the DMCA. The development activities within the DMCA are not expected to have an adverse effect on the adjacent marshlands. During construction of the DMCA, proper BMP's such as silt fencing, grassed slopes, etc. will be utilized to prevent erosion and sedimentation. The proposed construction activities associated with building the dikes of the

DMCA within the upland component of the project should not require a state waters buffer variance.

14.0 Mitigation:

Site Access Road: The proposed project requires impacts to 1.8 acres of freshwater wetland for access to the project site. The impacts are associated with widening an existing paved road and the installation of a new road crossing from the site of the old incinerator to existing upland on the SeaPoint project site. In working through the USACE Standard Operation Procedure for Calculating required mitigation credits (version 1.0, April 27, 2018) (see attached SOP worksheets), the 1.8 acres of impacts requires 0.90 2018 wetland credits, or 7.20 grandfathered credits. The applicant proposes to purchase the 7.20 grandfathered credits from the AA Shaw Mitigation Bank which has the credits available and is within the primary service area of the SeaPoint project site.

Proposed Deep Water Berth: The applicant proposes to construct 3,000 linear feet of deep water shipping terminal to be completed in phases as outlined above. The terminal is to be constructed within upland area to minimize impacts to fish species within the adjacent Savannah River and to locate the face of the berth at a proper distance from the Savannah River Shipping channel. Once the king pile wall is installed, the applicant proposes to dredge 6.6 acres of intertidal zone including 1.24 acres of vegetated coastal marshland and to remove 3,000 square yards of existing rip-rap along the shoreline and intertidal zone. The additional dredging to the existing shipping channel (approximately 50.25 acres) is all within open water. The proposed project will create an additional 19.63 acres of open water habitat adjacent to the Savannah River by excavating upland acres to create open water for ships to access the berth. The 19.63 acres of open water habitat to be created will provide additional habitat for certain fish species. While the proposed deep water habitat does not have exactly the same functions and values as the shallow intertidal zone including 1.24 acres of vegetated marsh, it does provide almost three times the area of tidal waters habitat. It is the applicant's opinion that this additional habitat will fully compensate for the loss of 6.6 acres of intertidal zone habitat and no additional mitigation should be required.

CMPA Supplemental Information

This additional information is provided for compliance with Coastal Marshlands Protection Act of 1970 information requirements:

OCGA 12-5-286. Permits to fill, drain, etc., marshlands.

- (b) Each application for such permit shall be, properly executed, filed with the department on forms as prescribed by the department, and shall include:
 - (1) The name and address of the applicant-

Sulfco, LLC Attn: Mr. Philip Rowland 118 East 35th Street Savannah, GA 31401

(2) A plan or drawing showing the applicant's proposal and the manner or method by which such proposal shall be accomplished. Such plan shall identify the coastal marshlands affected-

See attached drawings from Ball Maritime Group, LLC.

(3) A plat of the area in which the proposed work will take place-

See attached property deed. The attached permit exhibits depict the area in which the proposed work will take place.

(4) A copy of the deed or other instrument under which the applicant claims title to the property or, if the applicant is not the owner, then a copy of the deed or other instrument under which the owner claims title together with written permission from the owner to carry out the project on his land. In lieu of a deed or other instrument referred to in this paragraph, the committee may accept some other reasonable evidence of ownership of the property in question or other lawful authority to make use of the property; The committee will not adjudicate title disputes concerning the property which is the subject of the application; provided, however, the committee may decline to process an application when submitted documents show conflicting deeds-

Please see attached property deed.

(5) A list of all adjoining landowners together with such owners' addresses, provided that if the names or addresses of adjoining landowners cannot be determined, the applicant shall file in lieu thereof a sworn affidavit that a diligent search, including, without limitation, a search of the records of the county tax assessor's office, has been made but that the applicant was not able to ascertain the names or addresses, as the case may be, of adjoining landowners-

State of Georgia Martin Luther King, Jr. Dr. SE 1454E Atlanta, GA 30334 Coastal Heritage Society 303 Martin Luther King, Jr. Blvd. Savannah, GA 314012 (6) A letter from the local governing authority of the political subdivision in which the property is located, stating that the applicant's proposal does not violate any zoning law;

Permit plans and a zoning request letter have been sent to the Chatham County Zoning Administrator for review and certification that the proposed project is not in violation of current zoning laws. See attached letter dated August 5, 2020

(7) A non-refundable application fee to be set by the board in an amount necessary to defray the administrative cost of issuing such permit. Renewal fees shall be equal to application fees, which shall not exceed \$1,000.00 for any one proposal and shall be paid to the department.

The \$500.00 check was mailed to the GADNR on September 21, 2020

(8) A description from the applicant of alternative sites and why they are not feasible and a discussion of why the permit should be granted-

See above project description

(9) A statement from the applicant that he has made inquiry to the appropriate authorities that the proposed project is not over a landfill or hazardous waste site and that the site is otherwise suitable for the proposed project-

Based on intensive field investigations and Tier II sampling by Terracon Consultants, Inc., the proposed project is not over a landfill and does not contain hazardous waste. The site has gone through an intensive Corrective Action Plan to remove all potential contaminated areas in coordination with the U.S. Environmental Protection Agency and GADNR – Environmental Protection Division. The complete Tier II Sampling Report can be available to GADNR if requested.

(10) A copy of the water quality certification issued by the department if required for the proposed project-

GADNR-EPD is copied on this application and will provide the 401 Water Quality Certification once they process the application. A copy of the certification will be provided to CRD upon receipt.

(11) Certification by the applicant of adherence to soil and erosion control responsibilities if required for the proposed project-

The project will conform to all state-mandated land disturbing and stormwater management requirements.

(12) Such additional information as is required by the committee to properly evaluate the application.

The proposed project is an expansion and redevelopment of an existing industrial site and will promote growth and economic development as outlined in the permit application. The proposed project will result in increased jobs, tax revenue, and income for residents of the State of Georgia. The proposed project is in the public interest and is the least

environmentally damaging most practicable alternative to satisfy the overall project purpose

- (g) In passing upon the application for permit, the committee shall consider the public interest, which, for purposes of this part, shall be deemed to be the following considerations:
- (1) Whether or not unreasonably harmful obstruction to or alteration of the natural flow of navigational water within the affected area will arise as a result of the proposal-

The proposed project will not alter natural flow of navigable waters nor will it obstruct public navigation. The proposed multi-use deep water terminal is to be constructed landward of the existing CMPA jurisdiction line, which will have no effect on navigation within the Savannah River Navigation Channel. There are no structures proposed that would obstruct or alter the natural flow of navigational water.

(2) Whether or not unreasonably harmful or increased erosion, shoaling of channels, or stagnant areas of water will be created-

The proposed project will not increase erosion, shoaling of channels, or create stagnant areas of water.

(3) Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with the conservation of fish, shrimp, oysters, crabs, clams, or other marine life, or wildlife, or other resources, including but not limited to water and oxygen supply-

The proposed project will not interfere with the conservation of fish, shrimp, oysters, crabs, clams, or other marine life, or wildlife, or other resources, nor affect water and oxygen supply.

Rule 391-2-3-.02. Regulation of Upland Component of a Project

Stormwater Management Plan of Upland Component:

As part of the GADNR-EPD Corrective Action Plan (CAP) for the site, the SeaPoint facility installed a new permitted industrial wastewater treatment pond and outfall to replace existing outfalls to the Savannah River. The NPDES Renewal Permit Application to GADNR-EPD with upgraded stormwater and industrial wastewater facilities was made on October 11, 2018, and approval was granted by GADNR-EPD on July 19, 2019 (Permit No. GA0003646). The upgraded facility includes a series of connected swales and ditches that direct stormwater and wastewater from the entire site into a large wastewater pond located on the southern portion of the site. The wastewater is collected from the entire site and is discharged through a weir and bubbler into an outfall ditch that extends the entire southern and eastern perimeter of the site. From there, the treated wastewater flows through an outfall back into the Savannah River, so essentially all stormwater and wastewater from the site is captured, treated, and monitored before returning to the adjacent Savannah River. On-going monitoring of the outfall is required as part of the GADNR-EPD permit.

The proposed outfall of the confined upland disposal site for the proposed project is designed to utilize this upgraded permitted NPDES outfall. The water from the disposal site will be directed through ditches, swales, or pipes into the large wastewater pond and incorporated into the treatment system before reaching the Savannah River. Based on the approved design, there should be no untreated wastewater from the developed or disturbed area flowing to the adjacent Coastal Marshlands or Savannah River.

- (g) The Coastal Marshlands Protection Committee, in its sole discretion, is authorized to grant a permit that includes an exception to the 50-foot marshlands buffer if the Committee finds that three conditions are met:
- 1. Application of the marshlands buffer requirement will create a substantial hardship on the applicant:

The upland component for the project is defined as the 19.74 acre upland dredge material containment area (DMCA). The 19.74 acre DMCA is an existing upland area that is to be modified to raise the existing earthen perimeter dikes to accommodate the proposed dredge material. The design for the DMCA is to allow the hydraulic dredged material to enter the site where the solids will begin to settle within the first of three chambers. As the solids settle, water will pass through the remainder of the area and continue to allow solids to settle before reaching the controlled outfall. The clean water will then pass through a weir pipe structure and discharge into the existing NPDES outfall structure for the SeaPoint facility. The water from the DMCA will travel through the NPDES system and ultimately discharge to the Savannah River to the east of the proposed wharf.

As outlined in the permit application project description, the dredging is to be completed in phases with DMCA maintenance and management of the dredged material in between dredge operations/phases to allow for increased capacity of the DMCA to complete all dredging phases. Construction activities within the upland component (DMCA) include site grading and raising the perimeter dikes to contain the dredged material. The interior will be chambered with earthen material to create three chambers to allow the dredged material to settle within the DMCA. The development activities within the DMCA are not expected to have an adverse effect on the adjacent marshlands, and proper BMP's such as silt fencing, grassed slopes, etc. will be utilized to prevent erosion and sedimentation into the adjacent marsh. Decreasing the size of the DMCA to accommodate a 50-foot marsh buffer around three sides of the DMCA will substantially decrease the size and storage capacity of the DMCA by as much as 15-percent which will place a tremendous hardship on the applicant's ability to complete the proposed dredging activity. For this reason, the upland component cannot accommodate the 50-foot marsh buffer for the upland component of the project. None of the activities proposed for the DMCA will result in impervious surface or an increase in stormwater runoff.

2. The purpose, function and treatment capabilities of the marshlands buffer can be or has been achieved by alternative means, such that the stormwater discharge to coastal marshlands from the marshlands buffer is managed according to the policy, criteria, and information including technical specifications and standards in the Coastal Stormwater Supplement to the Georgia Stormwater Management Manual, 1st Edition, April 2009, and is protective of water quality.

The GADNR-EPD and USEPA approved CAP for the project includes covering the site with compacted clay to create an impervious surface over approximately 90-percent of the project area (not including the DMCA). As part of the GADNR-EPD CAP for the site, the SeaPoint

facility installed a new permitted industrial wastewater treatment pond and outfall to replace existing outfalls to the Savannah River. The NPDES Renewal Permit Application to GADNR-EPD with upgraded stormwater and industrial wastewater facilities to capture all storm and wastewater runoff was made on October 11, 2018 and approval was granted by GADNR-EPD on July 19, 2019 (Permit No. GA0003646). The upgraded facility includes a series of connected swales and ditches that direct storm water and wastewater from the entire site into a large wastewater pond located on the southern portion of the site. The waste water is collected from the entire site and is discharged through a weir and bubbler into an outfall ditch that extends the entire southern and eastern perimeter of the site. From there the treated wastewater flows through a weir outfall back into the Savannah River, so essentially all stormwater and wastewater from the site is captured, treated, and monitored before returning to the adjacent Savannah River. This wastewater and stormwater facility was fully approved by GADNR-EPD and meets the standards outlined in the Georgia Stormwater Manual.

3. Consistent with the purpose and reasonable use of the proposed project, the smallest practicable encroachment into the marshlands buffer is being utilized.

The footprint of the perimeter dikes of the DMCA are existing and includes a grassed one lane maintenance road around the perimeter of the DMCA facility. The marsh jurisdiction line averages from 10 to 20 feet from the outer edge of the grassed road, and the proposed DMCA will encroach no further towards the marsh line. The maintenance road will remain in its current location as a grassed road to serve as a stormwater BMP to prevent siltation and erosion into the adjacent marsh. Additionally, the outer dikes of the DMCA will remain in their current location and will continue to be earthen and grassed with stormwater BMPs to prevent erosion and siltation into the adjacent marsh. As outlined above, increasing the marsh buffer will reduce the size of the DMCA which substantially reduces the storage capacity of the DMCA. For this reason, the applicant has proposed to maintain the existing marsh buffer between the maintenance road and the jurisdiction line. No additional encroachment into the marsh buffer is proposed. All work will occur within the upland footprint of the DMCA. This is the smallest practicable encroachment into the marsh buffer that allows the DMCA to be utilized for its intended purpose that satisfies the project need.

Impervious Cover Goals:

As outlined above, the SeaPoint project area is under a Corrective Action Plan (CAP) through coordination with GADNR-EPD and the USEPA. The CAP requires that once the cleanup of the site is complete, compacted clay is to be utilized to serve as an impervious cover over the majority of the site. The CAP also required the development of an updated NPDES wastewater facility for the site to essentially capture and treat all wastewater and stormwater from the site before it is eventually discharged into the Savannah River. This NPDES facility is monitored regularly in accordance with the GADNR-EPD NPDES permit. Based on the CAP and permitted NPDES wastewater/stormwater facility, the water leaving the site through the NPDES facility is cleaner than pre-CAP conditions, and it is expected that the water quality leaving from the redeveloped site will continue to improve.



Gregori S. Anderson, CBO Director

CHATHAM COUNTY

DEPARTMENT OF BUILDING SAFETY
AND REGULATORY SERVICES
P.O. Box 8161
Savannah, GA 31412-8161
912-201-4300 | Fax 912-201-4301
http://buildingsafety.chathamcounty.org



Clifford Bascombe, CBO Assistant Director

August 5, 2020

Mr. Stuart F. Sligh Sligh Environmental Consultants, Inc. Via mail: s sligh@slighec.com

Re: Sea point Marine Terminal 1 Kerr-Mcgee Drive Savannah, Georgia 31404 PIN: 10122 01005

To whom it may concern:

The above reference address is located within the I-H, Heavy Industrial Zoning District. The proposed marine terminal project is an approved use under Chatham County Zoning Ordinance.

If there are any questions, contact this office at (912) 201-4320.

Sincerely,

Gregori S. Anderson, CBO Interim Zoning Administrator

GSA/mm

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Ball Maritime Group, LLC 4 Cedar View Court | Savannah, Georgia | 31410 | (912) 662-2914 www.bellmachimc.com

SHEET INDEX
PROPOSED ACTIVITY: SERERAL PLIRP'DSE MARINE TERHUMAL

SAVANNAH, GA SEAPOINT MARINE TERMINAL

Applicant: SEADORN' MARNE TERMINAL
Date: 10102/2019
County: CHATLAIN
JOB#: 19-1041 DATUM: NAV
SCALE: N.T.S SHEET: 1 al

DATUM: NAVDBA SHEET: 1 of 11

SENERAL NOTES:

