PROJECT DESCRIPTION AND
SUPPORT DOCUMENTATION FOR THE JOINT APPLICATION
FOR THE

WHARF ST. MARYS

Camden County, Georgia

1. BASIC PROJECT DETAILS

The Camden County Joint Development Authority & JDI Cumberland Inlet, LLC., propose to develop a ~24.68-acre site on the southern portion of the former Durango Paper Mill site in St. Mary's, Camden County, Georgia (Appendix A, Figure 1). The ~24.68-acre parcel is part of a ~723-acre parcel currently owned byJDI Cumberland Inlet, LLC., . JDI Cumberland Inlet, LLC. & the Camden County Joint Development Authority have a development agreement and memorandum of understanding (Appendix 8) by which this project has been permitted in the past. The property was formally owned by Gilman Paper Company who began operations in 1940. Later, the property was purchased by Durango-Georgia Paper Company Mill which ceased operations in 2002 upon its bankruptcy. The proposed development is a re-development of a ~24.68-acre portion of the former paper mill operations. The materials in this application provide specific details of prior use, existing site conditions, and pending remedial activities that will be employed because of this project.

The proposed project is named **WHARF ST. MARYS.** The project will consist of a full-service marina facility to be constructed along the west bank of the North River. The general scope of the project includes the creation of a 9.36-acre marina basin with 165 wet slips and 600 dry slips.. A portion of the marina facility (northern docks containing fuel dispensers/sewage pumpout capabilities and a transient dock,) will be constructed over the existing river bottom, while the wet slips, dry storage dropwell, , and associated staging docks will be located within the man-made basin, which is to be constructed through the excavation of 9.36 acres of upland property (formerly an operating papermill for 50 years). Bulkheads will be constructed around the perimeter of the new marina basin, and landward of the bulkheads will be a marina facility parking deck, dry storage facility, boat wash, vehicle parking, a traffic circle leading to the marina office, and the marina office/restrooms. A confined disposal facility will also be constructed and maintained nearby, for the purpose of future maintenance dredging of the marina basin.

The following information and attached materials are provided to pursue a modification of the existing Coastal Marshlands Protection Act (CMPA) Permit 748 and reissuance of a Department of the Army Permit Letter of Permission to impact 0.92 acres of aquatic resources, and reissuance of a Nationwide Permit to impact 0.002 acre of aquatic resources for rip rap placement for the confined disposal facility (CDF) effluent discharge .

1.1 *Existing Site Conditions:*

General information pertaining to the existing site conditions for the ~24.68-acre site can be found in Appendix 1; Figures 1 thru 10. Included in this Appendix are Figure 1 Vicinity Map, Figure 2 USGA Topographic Image, Figure 3 NRCS Soil Survey, Figure 4 National Wetland Inventory, Figure 5 FEMA Flood Zone Data, and Figure 6 LiDAR Digital Elevation Model data.

Attention should be given to Figures 7 thru 10 that provide aerial imagery of the site. More specifically, Figures 7 & 8 define the site conditions while the paper mill was still standing. Figures 9 & 10 define the site post demolition of the paper mill and current residual debris that remains.

Close attention should be given to these aerials to help understand that this is a re-development of an industrial site and as such, much of proposed development is to occur on previously used, hardened structures of one form or another. Lastly, where possible, otherwise none existent storm water management tools will be installed to improve site conditions.

1.2 *Jurisdictional Determination:*

In January 2016, Environmental Services, Inc. (ESI), now Terracon Consultants, Inc., delineated the ~723-acre site for the Bankruptcy Estate of Durango Georgia Paper Company. On February 22, 2016 the Corps of Engineers issued a preliminary jurisdictional determination for the site which remained valid until February 22, 2021. The delineation of the larger site, which includes the ~24.68-acre subject property, is depicted on the survey prepared by Thomas & Hutton revised date 12/15/15, *Wetland Survey of Port of St. Marys Industrial And Logistics Center* (Appendix 16). There are no freshwater wetlands located within the ~24.68-acre project boundary.

In July 2022, Terracon revisited the site and confirmed there are no wetlands within the +/- 24.68-acre subject property and the delineation of the North River shoreline, which is armored with rip rap, remained consistent with the earlier delineation. Appendix 16 provides the updated

information and request for Corps of Engineers Jurisdictional Determination to once again confirm that boundary.

In early 2018, ESI revisited the ~24.68-acre site to perform a formal delineation of the subject property to establish the extent of the **salt marsh boundary**. ESI performed this effort in 2015 and acquired the verification from DNR in August 2015. The States verification process is valid for 1-year and expired in August 2016. The 2018 salt marsh delineation was performed in accordance with the *Coastal Marshlands Protection Act of 1970* and was effectively the same as the earlier delineation given the majority of the river front consists of a hardened rig-rap slope. On 5 June 2018 ESI and DNR staff completed a field visit to verify the recent delineation. The 2018 salt marsh boundary has been surveyed and is depicted on the survey prepared by Thomas & Hutton revised date 5/2/18, *Wetland Exhibit for Portion of The Port of St. Mary's Industrial And Logistics Center.* DNR verified the above referenced delineation in a letter dated 15 June 2018. (Appendix 15). In July 2022, Terracon revisited the site and confirmed there are no marshlands within the +/-24.68-acre subject property and the delineation of the North River shoreline, which is armored with rip rap, remained consistent with the earlier delineation. The current CMPA Permit 748 remains valid until September 14, 2023 whereby the current delineation remains valid until September 14, 2023. The requested permit modification of the CMPC Permit 748 includes the need to extend this permit for 5-years.

1.3 *Proposed Impacts:*

The project will result in no freshwater wetland impacts. Impacts associated with work located within tidal waters is limited to the shading footprint and pile installation of the floating docks, fixed walkways, and gangways associated with the northerndocks (located north of the marina basin entrance), and the transient docks (located south of the marina basin entrance). Additional impacts are associated with minor rip-rap placement along the east side of a newly proposed bulkhead located in uplands immediately east of the marina office and the excavation of existing rip rap along the river's edge and water bottoms below the toe of rip rap to create the entrance into the marina basin. Details of this work can be found in Appendix 2 and in the table below.

Table 1.

Area Name	Activity Type	Habitat	Area of Impact (Acres)	Impact Type
Northern docks	• Pile and floating dock installation	OW/WB RR	~**11,511.5** sf. total ~11,390.5 sf. ~121 sf.	• Shading • Floating dock: ~ (54) 18" dia. steel pipe piles in river. • (1) into rip rap. • Fixed dock: ~ (4) 14" square concrete piles in river. • ~ (4) 14" square concrete piles into rip rap.
Transient docks	• Pile and floating dock installation	OW/WB VM/MF	~**10,703.6** sf. total ~9,489.6 sf. ~1,254 sf.	• Shading • Floating dock: ~ (49) 18" dia. steel pipe piles in river.
Basin Entrance	• Excavation of basin entrance	OW/WB RR	~**17,860** sf. total ~15,246 sf. ~2,614 sf.	• Excavation of rip rap area and water bottoms.
Bank Stabilization South of Basin Entrance	• Rip Rap installation	VM/MF	~**75** sf. total	• Placement of rip rap at toe of new bulkhead.
Bank Stabilization North of Basin Entrance	• Supplemental Rip Rap installation	RR	~**9,200** sf.	• Placement of rip rap on top of the existing revetment north of the basin entrance.

** ***OW/WB = Open Water/Water Bottoms, RR = Existing Rip Rap within Jurisdiction, MF = Mud Flat, VM = Vegetated marsh***

2. SITE PLANS

Appendix 2, Sheets 1-24; dated 08/22/22 provide specific details associated with the project.

2.1 *Marshlands Component of Project:*

The marshlands component for this project is graphically defined in Appendix 4. Attention should be given to Sheets 1-5 to comprehend how the proposed project relates to the current site conditions. The marshland component, generally defined as the part of the project in an estuarine area requiring a permit under The Coastal Marshlands Protection Act, generally includes the northerndocks, fixed walkway, gangway and supplemental rip rap placed upon the surface of the existing revetment located north of the basin entrance, transient docks and gangway located south of the basin entrance, the dredging efforts needed to create the entrance to the basin, and a small portion of rip rap for bank stabilization located along a small bulkhead to be constructed in uplands immediately east of the marina store. Refer to Appendix 21 for details pertaining to the "*draft*" Marina Operations and Maintenance Manual. Details associated with the marshlands component of the project are graphically defined in Appendix 2; Sheets 1 - 24 and discussed further below:

Northern Slips and Transient Slips (over river bottom):

Along the bank of the North River, located over the river bottom, outside of the man-made marina basin, are several floating docks to be used for various purposes:

- **Northern Slips**: North of the basin entrance channel are the Northern Slips, to be used in conjunction with storage of larger vessels not using the dry storage facility anddry storage dropwell or permanent in-water dockage for the facility clientele. These floating docks consist of two side-tie docks running north-south, each at 10'-8" wide x 440'-8" long, connected by a short 10'-8" wide x 65' long dock segment. The northern docks will house a fueling station with gasoline and diesel fuel dispensers as well as a second sewage pumpout station. The fuel system will be designed with appropriate leak detection and safety shut-off technology. These Northern Slips are accessed by a 11' wide x 45'-6" (40' of which is located in jurisdictional areas) long fixed pier leading to a 4'-8" x 40' long gangway. These slips can also be accessed by the floating staging dock extending east from thedry storage dropwell.The Northern docks provide ~1,579 lf of side-tie mooring (~24 slips – 60' vessel length).

- **Transient Slips**: South of the marina basin entrance channel are the Transient Slips. These floating docks consist of two side-tie docks running north-south, one at 10'-8" wide x 353'-8" long and the other at 12'-2" wide x 345'-8" long, connected by a short 12'-2" wide x 82' long dock segment. These Transient Slips are accessed by a 7'-3" wide x 80' long ADA-compliant gangway. These slips can also be accessed by E Dock extending east from the upland dug basin. The transient docks provide ~1,282 lf of side-tie mooring (~20 slips – 60' vessel length).

    - The applicant intends to seek federal funding from the Boating Infrastructure Grant (BIG) Program to offset the construction costs associated with the transient facilities. The Sportfishing and Boating Safety Act of 1998 established BIG to provide funding to States, the District of Columbia, Commonwealths, and territories for the development and maintenance of facilities for transient nontrailerable recreational vessels. Through the program's intend and eligibility criteria, BIG-funded facilities provide many benefits to the communities in which they are located, such as:
        - Inter-state commerce and economic impact
        - ADA accessible boating facilities
        - State-of-the-art marina design and construction
        - Durable, long-lasting facilities
        - Environmental quality and sustainability
        - Vibrant and active marinas and waterfront destinations

- **Basin Entrance Excavation:** To connect the upland excavated basin to the North River, a ~0.41-acre (~17,860 sf.) area will be excavated along the existing revetment east into the river. The ~0.41-acre area is currently comprised of ~0.06-acres (~2,614 sf.) of existing revetment along the river bank, and ~0.35-acres (~15,246 sf.) of natural river bottom. The total excavated area will involve the removal of ~6,700 cy of material. The basin entrance will be excavated after the basin itself has been constructed. The existing rip rap bank will be removed with a long reach hoe and those materials placed in trucks and disposed of as appropriate. The remaining materials will be hydraulically dredged and deposited into the

on-site confined disposal facility. Appendix 2; Sheets 8, 9, 11,12, and 1 provide specific details.

- **Bank Stabilization:** There are two areas of bank stabilization. Located north of the basin entrance the North River has been subjected to a haphazard placement of revetment materials during the paper mill development and operations since 1940. The current materials are unstable in places and need supplemental enhancement. Appendix 2; Sheet 6 define a plan view and Sheet 12; cross-sections A-A and B-B provide section views of this activity. This area measures ~460' long by ~20' wide (~0.2-acres / ~9,200 sf.). The current revetment is an unvegetated bank.

  Located south of the basin entrance is the second area of bank stabilization. As depicted in Appendix 2; Sheets 8, & 9, the proposed basin bulkhead will extend east out of the basin and turn south along the upland side of the jurisdictional boundary. Rip rap will be placed along the toe of the basin bulkhead, all of which is located currently in upland. At the point the new bulkhead turns south along the jurisdictional boundary, rip rap will be placed along the toe of the bulkhead for stabilization and scour protection purposes. Appendix 2; Sheet 13, cross-section E-E, Sheet 14, cross-section F-F, and Sheet 17, cross-section J-J define the details associated with this activity. The rip rap placement along the southern half of the new bulkhead represents ~75 sf. *Note*, impacts denoted by crosshatching on Sheets 8 & 9, and labeled "shoreline in DNR jurisdiction to be excavated", have been accounted for in the Basin Entrance Excavation calculations.

2.2 *Upland Component of the Project:*

The upland component for this project is graphically defined in Appendix 4. Attention should be given to Sheets 1-5to comprehend how the proposed project relates to the current site conditions. The upland component, generally defined as all those service areas, amenities, and recreational areas located inland of the Coastal Marshlands Protection Act jurisdictional line, that serve or augment the functioning of the marshlands component of the project, generally include the marina basin and perimeter bulkheads, wet slip marina within the basin, dry slip marina using open drystack racks, marina facility parking deck, dry storage

dropwell, boat wash, vehicle parking, a traffic circle leading to the marina office, the marina office/restrooms, , and the confined dredge disposal facility. Refer to Appendix 21 for details pertaining to the "*draft*" Marina Operations and Maintenance Manual. Details associated with the upland component of the project are graphically defined in Appendix 2; Sheets 1 - 24 and discussed further below:

Marina Basin Excavation and Bulkheads:

The marina basin will be excavated from 9.36 acres of high ground running along the bank of the North River. The excavation will consist of the removal of ~425,000 cubic yards of material to varying depths ranging from -11.75 NAVD88 to -15.75 NAVD88 (-8.0 MLW to -12.0 MLW). The perimeter of the basin will be shored up by ~2,720 linear feet of bulkhead (a small amount of the 2,720 lf is "outside" the basin along the shoreline but upslope of the DNR line). The bulkhead design sections will vary depending upon the depth of the basin and the adjacent upland usage, but will primarily consist of steel sheet piling with a cast-in-place concrete cap with a rip rap revetment (3H:1V slope) at the toe of the wall. The majority of the basin will be excavated "in the dry" by maintaining the integrity of the existing shoreline at the North River, which will act as a dike or a "plug," preventing the river water from directly entering into the excavated basin. The existing grades in the proposed basin footprint will be lowered consistently across the entire basin footprint until groundwater intrusion is regularly encountered. Once groundwater is regularly encountered, the basin will be kept as dry as practical through the use of perimeter ditches, pumps, and wellpoint systems. Once the volume of water within the basin can no longer be managed through ditching and pumping, the remainder of the basin shape will be excavated with long-reach backhoes and barge-mounted cranes using clamshells. Bulkhead construction will be coordinated with the excavation effort as necessary. Once the basin shape and final depths are completed, the water surface elevations on each side of the "plug" will be equalized, and the dike will be excavated from both land-based backhoes and a barge-mounted crane with clamshell, thereby making the physical connection to the river. The basin bulkhead will approach the river and make a return northward and southward, tying into the existing river bank, thereby creating the entrance channel feature. All portions of the bulkhead along the North River shoreline will be installed "upslope" from the DNR Line in an effort to avoid impacts. Refer to Appendix 3; Photo Sheets 1 & 2 which provide visual example of the finished basin bulkhead.

Wet Slip Marina (within the marina basin):

After marina basin construction, a floating dock system will be manufactured, shipped to the site, assembled, and launched into the basin, then anchored into place with steel pipe piles. The basin wet slips will consist of the following dock segments:

- **A Dock**: 32 wet slips ranging from 35’ to 40’ long, berthed onto a dock tree with an 8’-8” wide x 316’ long trunk, an 8’-8” wide x 83’-8” long tee-head, eight 4’-7” x 40’-2” finger docks, and seven 4’-7” x 35’-2” finger docks.
- **B Dock**: 33 wet slips at 50’ long, berthed onto a dock tree with an 8’-8” wide x 391’ long trunk, an 8’-8” wide x 108’-8” long tee-head, and fifteen 5’-4” x 50’-2” finger docks.
- **C Dock**: 32 wet slips ranging from 50’ to 70’ long, berthed onto a dock tree with an 8’-8” wide x 447’ long trunk, an 8’-8” wide x 138’-8” long tee-head, eight 6’-5” x 60’-2” finger docks, and seven 7’-4” x 70’-2” finger docks.
- **D Dock**: 9 wet slips ranging from 50’ to 70’ long, berthed onto a dock tree with an 8’-8” wide x 241’ long trunk, four 7’-4” x 70’-2” finger docks, and a 22’ x 24’-7” triangle dock section.
- **E Dock:** 8 wet slips at 70’ long, berthed on a 10’-8” wide x 288’ long dock with two 7’-4” x 70’-2” finger docks.

- **Connecting Dock and Staging Docks**: A, B, C, and D docks are all connected by a common floating dock that runs along the basin perimeter, adjacent to the bulkhead. This dock is 8’-8” wide x 812’ long, with a 4’-8” wide x 40’ long access gangway. This connecting perimeter dock runs into an 8’-8” wide x 306’-4” long staging dock with a 7’-3” wide x 80’ long ADA-compliant access gangway. West of the dry storage dropwell is a second staging dock, 8’-8” wide x 504’-8” long, with two 4’-8” wide x 40’ long access gangways, one at each end. These staging docks will be used in the drystack operations, temporarily staging vessels before launching and retrieval by the forklift.
- **Dry Storage Dropwell Staging Dock**: East of the dry storage dropwell is a 10’-8” wide x

297'-4" long staging dock, to be used in the dry storage facility operations. A 4'-8" wide x 40' long gangway provides access to the northern docks from the dry storage area. This staging dock will feature gasoline and diesel fuel dispensers as well as a sewage pumpout station. The fuel system will be designed with appropriate leak detection and safety shut-off technology.

Dry Slip Marina (using open drystack racks):

- The proposed 600 dry slips are located to the north of the marina basin. The dry slip vessels will be housed in two dry storage facilities : both measuring 160' wide x 469' long. Each rack system will be rooved and will be enclosed on all four sides. The vessels will be launched using two 52' x 47' dry storage dropwell locations located on north side of the basin. Please refer to Appendix 4; Sheets 3, & 7. The vessels will be temporarily staged on the aforementioned staging docks. Refer to Appendix 4; Sheets 7, 14, & 15 for further details. The drystack operation will also include vehicle parking, a traffic circle to the marina office, the marina office, a boat wash, (4) 12,000-gallon underground storage tanks (UST's), , and an upland fuel-dispensing station. The fuel system will be designed with appropriate leak detection and safety shut-off technology. The drystack/ boatwash operation areas will be graded so that all wash down water is collected via a single storm drain. The wash down water will pass through an oil and water separator prior to being discharged into the marina basin.

Marina Facility Parking Deck

The marina facility parking deck will be located within the upload component, just west of the dry storage facility. The parking deck will measure 190' wide x 360' long and will be for both marina staff and visitor's utilization. Please refer to Appendix 4; Sheet 23 for further parking deck details.

Confined Dredge Disposal Facility:

To the northwest of the drystack facility will be a confined dredge disposal facility (CDF). This 3.3-acre plot will hold a diked disposal basin roughly 429' x 393'. The CDF will be constructed using the suitable excavated material from the initial marina basin creation. Dikes will be constructed around the CDF, into which the future maintenance dredging material will be pumped from the marina basin. The dredged material will settle inside the CDF, with the effluent/runoff routed through a spillway structure and routed through existing stormwater infrastructure which ultimately discharges into the North River. The CDF will be sized to handle roughly 26,000 cubic yards of dredging without being emptied. Please refer to Appendix 4; Sheet 6, as well as Sheet 21 for a cross section of L-L and typical flashboard riser spillway detail. Results from the basin sedimentation analysis demonstrate this CDF has the capacity to hold enough sediment for one maintenance dredging event over a 5-year period. At such time that the CDF is full, the material will be mechanically excavated and hauled offsite, restoring the initial disposal basin capacity.

Marine Fuel System

Fueling stations will be provided at four locations in the marina facility: (1) at the staging dock in the northwest corner of the marina basin, (2) at the dry storage dropwell staging dock south of the marina office, (3) at the south end of the boat wash, and (4) at the Northern Docks.

The fuel system will be designed in accordance with the National Fire Protection Association's (NFPA) Automotive and Marine Service Station Code (NFPA 30A) and will feature appropriate leak detection, safety shut-off technology and fire protection. A Spill Prevention Control and Containment (SPCC) Plan will be prepared for the (4) 12,000-gallon Underground Storage Tanks (USTs) located in the drystack operations area, in accordance with 40 CFR 112.

Vessels stored in the drystack will be fueled while they area staged in yard racks in the operations area (as opposed to while temporarily berthed at the staging docks). All other vessels will be fueled in the water while they are securely berthed at the respective fuel dock.

An experienced operator will oversee vessel fueling at each fueling station. Fuel spill response equipment (e.g. absorbent booms, pads, etc.) will be stored and easily accessible at each fueling station.

Marine Sewage Pumpout System

A state-of-the-art marine sewage pumpout station will be installed at the Wharf at St. Mary's in an effort to protect water quality in the marina basin, the North River and the overall St. Mary's River watershed. Fixed pumpout stations will be provided at the staging dock south of the marina office as well as at the fueling facilities on the Northern Docks. In the marina basin, Docks A, B, C, D and E will be equipped with an "in-slip" pumpout system. The "in-slip" pumpout system allows for vessels to empty their marine sanitation device (MSD) while they are securely berthed in their slip. Sewage pumpout "hydrants" are installed along the edge of the dock "trees" (similar to utility pedestals and fire suppression standpipes) and spaced so that up to four vessels can connect and discharge to one hydrant. Refer to the "Typical Floating Dock Cross Sections" in the permit application drawings for an illustrated view of a typical sewage pumpout hydrant. The fixed pumpout stations and the "in-slip" pumpout system will connect and discharge to the St. Mary's municipal wastewater collection and treatment system.

The marine sewage pumpout system will be available to vessels berthed at the marina (short and long-term) as well as to the general boating public.

The applicant intends to seek Clean Vessel Act funding to offset a portion of the costs of the marine sewage pumpout system. The Clean Vessel Act (CVA) of 1992 was signed into law to reduce pollution from vessel sewage discharges, prohibiting the discharge of raw sewage into fresh water or within coastal salt-water limits. The act established a federal grant program administered by the U.S. Fish and Wildlife Service, which to date has awarded nearly $150 million for states to install thousands of sewage pumpout stations.

2.3 *Marshlands Buffers for Upland Component:*

This project is a redevelopment of a demolished paper mill site; therefore, there are no undisturbed buffers adjacent to the North River. Appendix 1 is provided to document the existing site conditions and the photo essay is used to observe progression of the site since 2003. Appendix 2 defines the 50' upland buffer measured from the jurisdictional boundary and the limited development, i.e. walkway, proposed within the buffer area. Appendix 4; Sheets 1-5define how the proposed project relates to the current site conditions. Appendix 5 addresses storm water management, speaks to the existing site conditions and the post construction improvements that are planned within the 50' upland component buffer.

During construction, the buffer area located east of the dry storage facility and north of the basin entrance will be used to install the fixed walkway leading to the in-water features, and to transport and place supplemental rip rap on the face of the existing revetment along the river to help stabilize the slope. Refer to Appendix 2; Sheet 12, cross-sections A-A & B-B for details.

The buffer area located east of the marina amenity and south of the marina entrance will be used to install the new bulkhead located upland of the jurisdictional boundary and to place rip rap at the toe of the new bulkhead to help stabilize the bulkhead and protect this area from scouring. Refer to Appendix 2; Sheets 8, & 9 for details.

Post construction of this project, the 50' buffer areas will be manipulated to remove the existing remnant mill debris and enhanced, as outlined in Appendix 5. The only permanent structures to remain within the buffers are the sidewalk leading to the northern docks and the new bulkhead located north and east of the marina amenity.

2.4 *Storm water Management Plan of the Upland Component:*

Refer to Appendix 5 for details relating to the storm water management summary, existing conditions, post development conditions, and paving grading and drainage concept layout.

2.5 *Pervious / Impervious Surface Calculations of the Upland Component:*

Refer to Appendix 5 for details relating to the storm water management summary, existing conditions, post development conditions, and paving grading and drainage concept layout.

3. DEED INFORMATION

Appendix 8 provides the Limited Warranty Deed dated 28 June 2021, Old Weed and Ready Recorded Plat, Development Agreement, and Memorandum of Understanding.

4. ADJOINING LANDOWNERS

A list of adjoining landowners and their addresses is attached in Appendix 9.

5. ZONING AND LANDFILL/HAZARDOUS WASTE STATEMENT

On 26 March 2018, ESI prepared letters to contact the appropriate City of St. Mary's officials regarding zoning and hazardous waste / landfills in the project area. A letter dated August 25, 2022 was sent to the City Manager, Mr. Robert Horton to confirm the project is in accordance with the approved PD text and zoning ordinance. In a letter dated August 26, 2022 Mr. Hughes confirmed compliance with the zoning ordinance. In a letter dated June 4, 2018 Mayor John. F. Morrissey reports that city records do not reveal any landfills or hazardous waste site exist on site. (Appendix 10 & 11 respectively).

It should be noted that recent environmental site investigations have indicated that soil in limited areas within the proposed project boundary have been impacted because of previous site use. The project area is qualified to be entered into the Georgia Brownfield Program as promulgated by the Georgia Brownfield Act (O.C.G.A 12-8-200). Additional investigation and remediation will be conducted within the project area as required by the Georgia Environmental Protection Division (EPD) Response and Remediation Program Brownfields Unit. Site redevelopment will not begin until the Georgia EPD has certified that the site is in compliance with the approved risk reduction standards and any applicable Activity and Use Limitations.

Terracon Consultants, Inc. completed the above referenced Due Diligence Limited Site Investigation October 4, 2017. The full results of that investigation are included in Appendix 12.

6. DESCRIPTION OF ALTERNATIVES & MINIMIZATION OF IMPACT MEASURES

6.1 *Alternatives:*

Appendix 17 provides three earlier site plans conceptualizing this project. Each plan is

generally similar in that a basin is excavated in uplands, a basin entrance to the North River must be constructed, and in-river dockage is also needed to accommodate vessels associated with the dry storage facility and transient accommodations.

Considering the existing site conditions, no freshwater wetlands exist on site; therefore, the project represents complete avoidance of any wetlands regulated by the Clean Water Act.

As depicted on the earlier plans, the basin configuration and basin entrance has changed over time. To minimize project impacts, Wetland Environment Consultants (WEC) was engaged to review the concept plans and model the existing conditions in the North River to provide design input for the project. As such the basin configuration and basin entrance was finalized as defined in Appendix 2. Appendix 14 provides the WEC water quality and sedimentation analysis which draws reasonable conclusions for this project. Minimization efforts resulting from this analysis include an overall reduction of the basin entrance excavation area.

Further minimization efforts have been employed which include limited permanent impacts to the 50' upland component buffer, installation of the marina store bulkhead upslope of the jurisdictional boundary, and limiting the new rip rap at the toe of this bulkhead.

No additional minimization options exist that would also allow the project to be constructed as proposed.

6.2 *No-Build Alternative:*

A no-build alternative would result in the subject site remaining in the abandoned, underutilized condition as it has been since the Durango Paper Company bankruptcy. A no-build alternative does not meet the purpose and need for this project.

7. EROSION AND SEDIMENTATION STATEMENT

Pursuant to CESAS Form 19; Question 16, B: 1,2,3.

1) All activities will be performed in a manner to minimize turbidity into river.
2) No oils or other pollutants will be released from the proposed activities which will reach the river.
3) All work will be performed in a manner necessary to avoid interference with any legitimate water uses.

8. PUBLIC INTEREST STATEMENT

The proposed construction, outlined elsewhere in these materials, has been designed to meet the specific project purpose, while minimizing adverse impacts to the surrounding ecosystems wherever possible. In this application, documentation has been provided to discuss how the project is not contrary to the public interest, and the following public interest considerations are discussed:

Pursuant to the Coastal Marshland Protection Act 12-5-286. (12)(g):

a. *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.*

Site data collected and used in this application clearly defines the existing site conditions. The river at the project location ranges between 277' to 380' wide. The proposed northern dock occupies ~ 38% of the waterway and the transient dock occupies ~34% of the waterway. Appendix 2; Sheets 6 & 8 provide detail of the docks in association with the current bathymetric survey of the North River. As depicted, the depth of the river at the dock locations satisfy depth requirements for this project. As depicted, the depth of the river east of the outboard docks and across the remaining portion of the river range between -12' to -15' deep and ~150' to ~200' wide. These conditions provide ample room for safe navigation past the proposed project. Therefore, there will be no unreasonable harmful obstruction to or alteration of the natural flow of navigational waters.

b. *Whether or not unreasonable harmful or increased erosion, shoaling of channels or stagnant areas of water will be created.*

The project is located along a relatively straight section of the North River. The configuration of the docks and piles allows the current to continue to run parallel to the shoreline. As discussed in the WEC analysis provided in Appendix 14, the basin

entrance will not result in any increased erosion of shoaling within the North River. Additionally, as reported in the WEC analysis, a 2- to 4-day flushing time is generally considered satisfactory. The designed basin results in the estimated flushing time of 2.9-days, thereby avoiding any stagnated areas of water. Therefore, no unreasonable harmful or increased erosion, shoaling of channels or stagnant areas of water will be created.

c. *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, wildlife, or other resources, including but not limited to water and oxygen supply.*

The proposed project will employ Best Management Practices in accordance with local, state, and federal regulations.

As outlined in the WEC report in Appendix 14, flushing times of 2.9-days meets the standard and avoids issues with oxygen supply.

As outlined in the Conservation Measures Section 11 in this document, and the "Sample" education materials defined in Appendix 20, conservation of marine life and other resources will be employed and made part of the daily operations of this project.

Furthermore, to understand the current site conditions, Terracon Consultants, Inc. was employed to continue site investigations. Appendix 12 provides details associated with the Due Diligence Limited Site Investigation dated October 4, 2017. The recent environmental site investigations have indicated that soil in limited areas within the proposed project boundary have been impacted as a result of previous site use. The project area has been entered into the Georgia Brownfield Program as promulgated by the Georgia Brownfield Act (O.C.G.A 12-8-200). Additional investigations have begun

to delineate soil contamination areas and remediation will be conducted within the project area as required by the Georgia Environmental Protection Division (EPD) Response and Remediation Program Brownfields Unit once the CMPA and Federal permits are acquired. Site redevelopment will not begin until the Georgia EPD has certified that the site is in compliance with the approved risk reduction standards and any applicable Activity and Use Limitations.

Lastly, Terracon Consultants, Inc. was also employed to prepare a Groundwater Modeling Report once the basin configuration and basin wall (bulkhead) design were finalized. Appendix 13 provides details associated with the Groundwater Modeling Report dated June 12, 2018. Page 15, **Section 5 Summary and Conclusions** state "The results of the model indicate contaminants will not impact the open basin marina based on the modeled bulkhead wall design".

Therefore, using appropriate redevelopment standards consistent with BMP's and regulatory obligations, this project as proposed will not unreasonably interfere with the conservation of fish, shrimp, oysters, crabs, clams, or other marine life, wildlife, or other resources, including but not limited to water and oxygen supply.

9. LISTED SPECIES

Protection of listed species is provided by the Endangered Species Act for both private and public lands, regardless of permitting needs. For species listed by the State of Georgia as rare, unusual, or in danger of extinction under the Endangered Wildlife Act, the state's jurisdiction is limited to the capture, killing, selling, and protection of suitable habitat of protected species on public land. For plants listed by the state as rare, unusual, or in danger of extinction under the Wildflower Preservation Act, jurisdiction is also limited to those species found on public land. Species of Management Concern (SMC) are not being evaluated, because they have no federal listing, so therefore are not legally protected. Since this parcel does not contain public lands, the

listed species review focused only on the federally listed species with ranges in Camden County, Georgia.

The majority of the ~24.68-acre is upland and was formerly part of a papermill that operated for nearly 50 years. After declaring bankruptcy and several changes in ownership, demolition began in the late 2000's, and has continued intermittently until present day. Due to the site's current condition containing a mass amount of urban debris and its prior use as a papermill, most upland dependent listed species are not anticipated to occur within the project site. For this reason, several of the species listed as potentially occurring in Camden County are not anticipated to occur within the project site, including eastern indigo snake (*Drymarchon corais couperi*), gopher tortoise (*Gorpherus* polyphemus), and beach/shorebirds [piping plover *(Charadrius melodus)* and rufa red knot *(Calidris canutus rufa)*].

ESI/Terracon has spent a substantial amount of time on site and have reviewed available printed materials for current listed species. Refer to Appendix 19 for U.S. Fish and Wildlife IPaC data. Compilation of this data revealed the list of species identified to occupy habitats similar to those found on or near the project site as listed below in Table 2, along with a brief description and statement about their potential for occurrence. It is to be noted that although the Hawksbill Sea Turtle (*Eretmochelys imbricata*) is listed on the U.S. Fish and Wildlife IPaC, the Georgia Department of Natural Resources (GADNR) Wildlife Resources Division (WRD) biodiversity portal states that hawksbill sea turtles do not nest in Georgia and thus are not associated with any conservation lands in the state.

Table 2. Listed species classified as Threatened or Endangered for Camden County, GA

Species	Federal Status	Habitat	Threats	Potential Habitat Present	Project Potential for Impacts	Biological Opinion
Bird						
Wood stork *Mycteria americana*	T	Primarily feed in fresh and brackish wetlands and nest in cypress or other wooded swamps.	Decline due primarily to loss of suitable feeding habitat, particularly in south Florida. Other factors include loss of nesting habitat, prolonged	No	None	No Effect

			drought/flooding, raccoon predation on nests, and human disturbance of rookeries.			
Eastern Black Rail ***Laterallus jamaicensis ssp. jamaicensis***	T	Very shallowly flooded freshwater marshes; brackish marshes, and salt marshes.	Habitat loss due to ditching, filling, and draining of wetlands. Excessive tidal inundation due to sea level rise and increased frequency and intensity of storms caused by climate change.	Yes	Low[1]	May Affect – Not Likely to Adversely Affect
Mammal						
West Indian Manatee *Trichechus manatus*	T	Live in marine, brackish, and freshwater systems in coastal and riverine areas.	Habitat loss, boat collision, entanglements in fishing gear	Yes	Low[1]	May Affect – Not Likely to Adversely Affect
North Atlantic Right Whales *Eubalaena glacialis*	E	Mostly found along the Atlantic coast of North America. Nursery in shallow coastal waters	Ship collisions, fishing gear entanglement, habitat degradation, contaminants, climate change, noise	Yes	Low[1]	May Affect – Not Likely to Adversely Affect
Reptile						
Green Sea Turtle *Chelonia mydas*	T	Shallow waters inside reefs, bays, inlets; rarely found in open ocean. Nest in open beaches with minimal disturbance.	Loss of nesting habitat, commercial harvest, disease, marine pollution, watercraft strikes, incidental capture	Yes	Low[1]	May Affect – Not Likely to Adversely Affect
Leatherback Sea Turtle *Dermochelys coriacea*	E	Open ocean, forage in coastal waters and offshore.	Incidental capture, marine pollution. commercial harvest	Yes	Low[1]	May Affect – Not Likely to Adversely Affect
Loggerhead Sea Turtle *Caretta caretta*	T	Feed in coastal bars/estuaries and shallow water along the continental shelf.	Loss of nesting habitat, incidental capture	Yes	Low[1]	May Affect – Not Likely to Adversely Affect
Hawkbill Sea Turtle **Eretmochelys**	E	A tropical species found in shallow, hard-bottom areas such as coral reefs	Decline of coral reefs. Historical commercial exploitation.	No	None	No Effect

imbricata		and rock outcroppings. Juveniles can be found in sargassum mats.				
Kemp's Ridley Sea Turtle **Lepidochelys kempii**	E	Open ocean; sounds; coastal rivers; beaches. Juveniles can be found in Georgia estuaries during the months of April-October.	Human consumption, commercial fisheries & habitat loss.	Yes	Low[1]	May Affect – Not Likely to Adversely Affect
Fish						
Atlantic Sturgeon *Acipenser exyrinchus oxyrinchus*	E	Hatch in freshwater rivers, head out to sea as juveniles, and spend most of their time in coastal rivers. In Georgia, they return to their birthplace to spawn during later summer/fall. Adults migrate and forage along the coast in estuaries.	Overharvesting, bycatch of sturgeon in fisheries targeting other species, poor water quality, habitat degradation/loss from dams, dredging, etc.	Yes	Low[1]	May Affect – Not Likely to Adversely Affect

[1] Low was assigned to all those species that could not be completely eliminated as potentially utilizing the property or nearby waters in some regard. In this case all of these species were assigned a Biological Opinion of May Affect – Not Likely to Adversely Affect

Suitable foraging for wood storks exist in close proximity to the project site. In addition, a wood stork rookery exists within the former 723-acre Durango Papermill Tract, approximately 1-mile northwest of the current ~24.68-acre parcel. Although wood storks could fly over the site, given the fact that this site does not offer any unique habitat for this species, the likelihood of the project negatively affecting this species is low. Existing features within the 1-mile separation of the Wharf St. Marys and the rookery are several physical barriers, including thick vegetation and earthen berms, that shield from visual and noise disturbances. It should also be noted that this colony of wood storks has existed since 1998, when the papermill was still in full operation (until Fall 2002). After the bankruptcy, work continues on site for demotion purposes. Therefore, it is assumed individuals were / are acclimated to high levels of human activity. Activities associated with this project are not anticipated to affect this species.

The St. Mary's River is designated as critical habitat for Atlantic Sturgeon, along with the

other coastal rivers throughout Georgia; however, this project is located upstream of the St. Mary's River, on the North River, therefore this has no affect to any critical habitat. Sturgeon ***may*** utilize the North River only for foraging, growth, resting, staging, and holding; as confirmed from NOAA. NOAA also revealed that "the limited work done in the St. Mary's River suggested that sturgeon move lower in the river in winter and back upstream in the summer, therefore it would be less likely, to very unlikely, to encounter sturgeon during in-water work from June – October". Therefore, the applicant proposes for most of the in-water work to be completed between this timeframe. When in-water work is occurring, the main mitigative measure is the use of noise attenuation techniques. All steel piles will be driven with a vibratory hammer, which reduces the amount of underwater noise. For other pile materials, such as concrete, a diesel impact hammer will be utilized. Pile driving will begin with a slow deployment / slow start technique, which helps to encourage the movement of any wildlife away from the construction area before constant pile driving commences. The proposed measures mentioned herein, should mitigate for the potential effect on wildlife, including sturgeon and the critical habitat designation located in the St. Mary's River ~ 2-miles downstream.

The marine species listed in Table 2, can/do occupy the waterways proximate to the project and within the Atlantic Ocean located ~7.5 river miles to the east. Boats originating from the marina have a potential for encountering these marine species during their trips. Therefore, several general mitigative measures are being discussed to avoid unreasonable interference with wildlife conservation. These concepts include but are not limited to:

- Coordination with the resource agencies to access the current educational materials and develop a project specific education plan to be used by the patrons. Examples of such plans, signs, and brochures can be found in Appendix 20.
- Adherence to Camden County Code Section 70-6, designating the North River as a no-wake zone. Idle and/or slow boat speeds can help avoid boat strikes with manatees, right whales, and sea turtles.
- Educational signs that will help increase awareness of this Camden County code are proposed, in addition to any species-specific no-wake zone/slow speed signs the resource

agencies may suggest.

- Initial construction of the facility and future maintenance dredging of the basin, will employ normal Best Management Practices (BMPs) and utilize appropriate seasonality windows to perform these activities.

10. CULTURAL RESOURCE ASSESSMENT

Summary/partial cultural resource evaluation data is provided in Appendix 18, In March 2007, Environmental Services, Inc. (ESI) performed an intensive cultural resource assessment survey of the ~723-acre tract of the LandMar/Durango Paper Mill parcel, which included the current +/- 24.68-acre site. A Phase 1 Report was finalized in February 2008 which outlined the methodologies and findings from the archaeological surveys conducted. The goal of the surveys was to locate, identify, delineate, and evaluate all historic properties within the parcel, including prehistoric and historic archaeological sites, as well as historic structures. The cultural resource assessment survey included a pedestrian inspection combined with systematic shovel testing at 30 and 90-meter intervals.

As a result of the 2007 survey, one historic period archaeological site was located (9CM459), that was not considered eligible for inclusion in the *National Register of Historic Places* (NRHP), based upon the results of field investigations. Site file consultation indicated that there were no previously recorded sites within the property; however, there were 39 previously recorded archaeological sites and/or historic structures, primarily residences within the St. Mary's historic district, documented within a one-mile radius of the property. Furthermore, there were numerous structures greater than 50 years of age associated with the former Gilman Paper Company/Durango Paper Mill and Manufacturing Complex (9CM460), which was then located within the southeastern portion of the 723-acre property, and is now part of the current +/- 24.68-acre site. Since the time that field investigations were completed, the paper mill complex was dismantled/demolished as a result of bankruptcy proceedings against the prior owner. Based on the results of the 2007 field investigations and 2008 Phase 1 site assessment, no further cultural resource considerations were recommended for the 723-acre property.

As part of the proposed LandMar/Durango Paper Mill community dock development associated with USACE Application, Regulatory No. 2006-02277, Dr. Brian Marks of ESI sent a letter dated 13 February 2008 to Dr. Jeff King of the U.S. Army Corps of Engineers (CE), Savannah District, requesting a determination of the need for an archaeological remote sensing survey. In response to this letter, an email was received from Mr. Jeff King dated 2 April 2008, recommending that a low water survey of the river bank/intertidal area and a remote sensing survey be conducted of submerged areas. In response to this letter, ESI initiated a meeting in May 2008 with the CE to determine scope of this request, during which ESI provided additional information. This additional information lead to a determination by CE that no remote sensing would be necessary.

Since a Phase 1 Report was completed prior to site demolition, and the CE confirmed that no in-water surveying or remote sensing would be necessary for the LandMar community dock (Regulatory Branch# 2006-02277), ESI recommended that no further cultural resource assessments are necessary, in relation to the currently proposed project, known as Wharf St Marys.

As a result of the agency coordination performed during the 2018/2019 permit application process for Wharf St. Marys, the GDNR – Historic Preservation Division (HPD) issued a letter on May 20, 2019 stating that portions of the St. Mary's to Kingsland (SMKL) Railroad Depot and Spur Line are eligible for listing in the NRHP. Further, in the Department of the Army Letter of Permission (LOP) SAS-2006-02277 issued June 27, 2019 as outlined in General Condition 9, the permittee shall submit a draft Photographic Permanent Archival Record (PAR) to resolve adverse effects to portions of the SMKL spur line corridor. The PAR has not been performed at this time; however, this activity will be fulfilled following reissuance of a new LOP for this project.

11. CONSERVATION MEASURES

As noted elsewhere in this application, the applicant has taken various steps to minimize environmental impacts and create a development that is a viable business venture as well as a project that would complement Camden County.

These measures include:

a) Re-development of an already impacted waterfront with a reduced footprint.
b) Proposing construction of only 2 minimal in river structures.;
c) Reduce the number of fixed piers constructed to provide access to the floating dock system.
d) Negate marsh shading by using areas void of marsh vegetation.
e) Limit in river marina structures by proposing inland boat basin.
f) Use of construction material suitable to the environment for which they are proposed.
g) The implementation of standard threatened and endangered species educational materials, both temporarily during construction and permanently after construction.
h) Utilizing pile driving techniques that decrease potential disturbance to threatened and endangered species.
i) The implementation of an education program to inform users of the North River no-wake Camden County ordinance.
j) Provide public access giving these structures dual use.
k) Improve existing revetment to prevent future erosion.
l) Restoration of the upland riverbank interface providing a buffer where none currently exists.
m) Compilation of a Marina Operations and Maintenance Manual.
n) Implement Clean Marina Best Management Practices and other Best Management Practices during the construction of the water access structures and associated development, to avoid turbidity and siltation in adjacent marshes and waterways.
o) Implement monthly maintenance of dock apparatus' capable of producing a stream of fresh water and have a contingency plan for emergency repairs of any freshwater source.
p) Provide pump out stations.

12. PURPOSE AND NEED STATEMENT

The Purpose and Need Statement is to satisfy 404 (b) (1) Guidelines and public interest review (33 CFR 320.4). The purpose of the project is to construct a full-service marina facility to

serve public and private interests. The need for this project is driven by several factors, these include:

- Residents in Camden County have limited facilities that provide for public access to the water and suitable wet and dry storage. Recent Hurricanes Matthew and Irma have decimated the in-water facilities located in St. Mary's, further limiting suitable water access and use. Appendix 7 provides pre/post aerial documentation of this hurricane destruction.
- Transient boaters have limited opportunities for mooring while visiting the St. Mary's area.
- The proposed project stimulates economic development in this area.

13. Needs Assessment

Pursuant to The Rules of the Department of Natural Resources, Chapter 391-2-3-.03(6)(c.), Coastal Marshlands Protection, the following information is provided to demonstrate the need for this project.

As stated earlier in this application, the ~24.68-acre project is a portion of a 723-acre parcel formally occupied by a paper mill. Originally operated by Gilman Paper Company, following by Durango Paper Company, the site also represented the largest private employer in the county. Closure of the mill significantly affected the unemployment rates and has continued to negatively affect growth of this area. For years, the bankruptcy trustee has been courted by prospective users of the site. In July 2021 JDI Cumberland Inlet, LLC acquired the property from the bankruptcy trustee. JDI has entered into a development agreement with the Camden County Joint Development Authority and have a Memorandum of Agreement (Appendix 8) in place to jointly develop the proposed Wharf St. Marys project.

Wharf St. Marys represents the first viable project to seriously pursue appropriate entitlements on site representing significant opportunities for the local boating community, transient vessel operators, and increased tourism by providing a destination location for transient boaters Additionally, site improvements also enhance local retail, restaurant, residential, and commercial interests.

During the planning process, the applicant employed CBRE Valuation & Advisory Services to prepare a feasibility study for Wharf St. Marys. In 2022, the owners again employed

Cushman & Wakefield to update the prior feasibility study; this can befound in Appendix 6. The study goes into extensive detail addressing all aspects of the proposed project and the appropriateness of a project like this being in St. Mary's, Ga. Starting on Page 78 of this study, the conclusion reveals satisfaction of five criteria:

- Economic feasibility;
- Market feasibility;
- Technical feasibility;
- Financial feasibility; and,
- Management feasibility.

In summary, the Cushman & Wakefield report provides sufficient detail to demonstrate the need and benefits of this project.

In addition to the above referenced feasibility studies, Appendix 7 – Pre/Post Hurricane Exhibits; Figures 1, 2, & 3 provide an aerial view of the St. Mary's riverfront pre/post Hurricane Irma. Figure 1 provides a March 2017 aerial of the riverfront and identifies the owners/operators of the facilities labeled A thru G. Figure 2 provides an October 2017 aerial of the riverfront following the devastation of Hurricane Irma. While anecdotal information suggests some of these facilities are attempting to rebuild, others may unfortunately never recover. Figure 3 provides a general understanding of the location and relationship of Wharf St. Marys to the St. Mary's riverfront. Additional information depicts the waterway geometry of the St. Mary's River compared to that of the North River. Protection provided by the saltmarsh located south and east of the proposed project can also be observed. As defined on Figure 3, the St. Mary's River is a much larger waterway. While the larger waterway offers several advantages over smaller waterways, when considering the "fetch" from a southeast direction, the St. Mary's River has a ~6,300' fetch vs. the North River ~1,400' fetch. When storm events occur, the longer fetch correlates to higher wind and wave energy which has the potential to cause more damage as seen in the St. Mary's River example. Couple the shorter fetch provided at the North River, along with the protection offered by the inland basin, the proposed project will provide a safe harbor for residents and transient boaters in the future.

Additional demonstration of need for this project is revealed through recent discussions with the Cumberland Harbour Property Owners Association. Cumberland Harbour is ~1,014-acre residential community located approximately 1-mile directly east of the proposed project. Planning for Cumberland Harbour began in 2002. Along with the residential component of this project, Cumberland Harbour included the development of the Cumberland Harbour Yacht Club within the North River, the South Point Village Marina within the St. Mary's River, three day-docks within Pt. Peter Creek, and up to ~92 residential docks originating from the residential lots. The permit for the in-water portion of this project was issued in December 2009. Given the economic challenges during this period, the original developer lost the property to the lender and numerous other entities have attempted to develop the water access as planned. The original permit was issued a 5-year extension in ~2014 extending the permit life to December 2019. Recent approach to the applicant for Wharf St. Marys by the Cumberland Harbour POA revealed there are no plans to proceed with development of either marina at Cumberland Harbour. As a result, the POA inquired about the residents at Cumberland Harbour being able to utilize facilities planned at Wharf St. Marys. As planned, Wharf St. Marys is a public/private facility and it welcomes the ability to accommodate the needs of the Cumberland Harbour residents.

The project team believes the information provided in this application clearly demonstrates the need for this project in St. Mary's, Camden County, Ga.

Cumberland Inlet Marina Upland Component

Stormwater Management Summary August 25, 2022, *Rev* November 10, 2022

J# 28327.0002

The summary is presented to provide an explanation of the existing and proposed stormwater management for the site.

The site was previously used as a pulp and paper mill constructed in the 1940's. In 2004, Durango Paper Company, the owner at that time, entered into bankruptcy and closed the facility for paper production. The mill site was spread over 400+ acres with intensive industrial use.

Existing Site Conditions

The overall property boundary for the project is a +/-700 acre tract. Of that, the upland component for the proposed marina facility is +/-24.69 acres as shown on the sheet titled "Existing Conditions, Upland Component, Surface Area Assessment".

After closure of the mill facility, a majority of the vertical components (warehousing, production facilities, stacks, administrative facilities, etc.) were removed leaving the building foundations, sidewalks, parking areas, access drives and other hard features in place. The sheet titled "Existing Conditions, Upland Component, Surface Area Assessment" was prepared using current and archived 2006 aerial photographs of the facility. The 2006 photography was taken after the mill closure and prior to the removal of the vertical structures. Thomas & Hutton conducted an on the ground field assessment of the existing conditions in May 2018 to verify the findings. The exhibit demonstrates the historic condition of the site regarding impervious and pervious areas, which closely matches the current conditions ratio based on aerial photography and field assessment.

The impervious coverage observed during the site assessment consisted of concrete pads, asphalt roadways and parking lots, debris piles of concrete & metals, and standing water. Pervious surfaces generally consisted of formerly landscaped and vegetated areas now overgrown from lack of maintenance.

The percentages of each surface type are shown in the legend, and summarized as:

Impervious Surfaces: 71%
Pervious Surfaces: 29%

The former mill facility drainage system consisted of a series of underground storm drainage pipes, drainage ditches, shallow swales and sheet flow needed to support the facility. The stormwater system is not currently functioning, and was rendered inoperable during the multi-year demolition activities. Current conditions on site show stormwater runoff ponding on site

along with sheet flow through the ruins into the North River. The runoff is untreated prior to final discharge.

Proposed Stormwater Management

The Georgia Department of Natural Resources requires all projects seeking a Coastal Marshlands Protection Act Permit to provide stormwater management within the upland component of the project. Stormwater management includes methods to collect and treat stormwater runoff prior to discharge into marshlands, rivers, wetland or other environmentally sensitive areas.

Rule 391-2-3-.02 Regulation of Upland Component of a Project, section (5) details the standards for the upland component of the project. Section (5)(b) states "*discharged stormwater from the upland component of the project shall be 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."*

The Georgia Coastal Stormwater Supplement Section 4.4 lists Post-Construction Stormwater Management Criteria. Criteria number 2 states "*If any of the stormwater runoff generated by the 1.2 inch storm event (and the first 1.2 inches of all larger rainfall events), cannot be reduced on a development site, due to site characteristics or constraints, it should be intercepted and treated in one or more stormwater management practices that: (1) provide for at least 80 percent reduction in TSS loads; and (2) reduce nitrogen and bacteria loads to the maximum extent practical."*

Due to the high groundwater and low elevation of the existing site the stormwater runoff reduction of the 1.2-inch rainfall event is not feasible. Since the existing site constraints make achieving criteria number 1 infeasible the criteria number 2 will be achieved by achieving 80 percent reduction is TSS loads. This will be met by using the Contech stormwater treatment structures. During design the filter media can be adjusted to achieve 80 percent TSS reduction for the 1.2 inch rainfall event, or first 1.2 inches of a larger stormwater event.

In an attempt to meet the requirements, to the extent possible with the property boundary and functional restraints, the Wharf at St. Marys proposed stormwater management system includes:

- Vegetative filter swales
- Landscaping areas
- Enhancement of the condition of the 50' buffer along the North River
- Storm Drainage System including inlets, manholes, piping, trench drains.
- Contech stormwater treatment structures.

The preliminary design of the stormwater management components are shown on Sheets C1.1 – C1.4.

A more detailed description of the components is as follows:

Vegetative Filter Swales

Vegetative filter swales will be installed with associated outfall structures to provide stormwater collection and treatment. The swales are generally located along the property boundary adjacent to impervious components. Sheets C1.1 through C1.4 provide locations of the proposed swales.

Enhancement of the 50' Buffer

Due to the prior use of the property and lack of adequate maintenance in recent years, the 50' buffer from the approved DNR jurisdiction line along North River is predominantly impervious surfaces with scattered debris allowing direct discharge of stormwater into the river. The proposed enhancement is to provide a vegetated swale to treat the stormwater prior to entering the grate inlet and discharge in the river. The treatment is shown in a proposed vegetative swale along the bank of the North River east of the Marina Office, refer to Sheet C1.3.

Trench Drain Installation

To collect runoff along the southern portion of the basin, a trench drain system will be installed adjacent to the bulkhead cap to capture runoff prior and eliminate discharge into the marina basin for this area. The intent is to sheet flow into the trench drain all runoff within the upland component area (bulkhead cap and 5' sidewalk) in addition to the future 25' promenade walkway outside of the upland component. The trench drain will connect to a storm drainage pipe with Contech stormwater treatment units at the discharge points. This system will flow south and east towards Meeting Street and provide drainage for the proposed mixed-use buildings and parking lots. Refer to Sheet C1.1-C1.3 for trench drain limits.

Contech Stormwater Treatment Units

The system will include installation of Contech Stormwater Treatment Units prior to discharge into the marina basin on systems that do not otherwise have a significant treatment component inside the specific drainage area basin. These units will be sized to provide stormwater treatment of the associated basins based on contributing discharge volume.

The proposed use of the site as a marina facility including dry stack boat storage, marina wet slips, fuel facilities and other necessary components require areas with structurally sound surfaces, such as asphalt, concrete and gravel surfaces, to facilitate the day to day operation of the marina. These functions include parking areas, access drives and aisles, boat storage and fork lift operations. Due to the nature of the necessary uses, these surfaces are impervious in nature. Pervious surfaces include vegetative swales, grassed areas, and landscaping areas.

The proposed pervious vs. impervious surface areas based on the management plan as described. A summary breakdown of the pervious/impervious ratios is as follows:

Pervious Surfaces	**21.5%**
Vegetative Filter Strips, Landscape, Pervious Pavers, #57 Stone boat wash area	
Impervious Surfaces	
Concrete/Asphalt/Gravel Surfaces/Building	40.5%
Excavated Marina Basin (Water & Docks)	38.0%
Total Impervious	**78.5%**

The proposed project existing conditions (pre-developed) and post-developed pervious/impervious ratios are close, with a net increase of 7.52% impervious coverage over the existing conditions. For clarification, the ratios noted about are provided on Sheet 1 of 2, “Proposed Site, Upland Component, Surface Area Assessment”.