### JOINT PUBLIC NOTICE

# CHARLESTON DISTRICT, CORPS OF ENGINEERS 69A Hagood Avenue Charleston, South Carolina 29403-5107 and the S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT 1362 McMillan Avenue, Suite 400 Charleston, South Carolina 29405

REGULATORY DIVISION Refer to: P/N # 2012-01069-1T

November 1, 2012

Pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), and the South Carolina Coastal Zone Management Act (48-39-10 et.seq.) an application has been submitted to the Department of the Army and the S.C. Department of Health and Environmental Control by

PAUL & DALTON PLANTATION C/O FOLK LAND MANAGEMENT, INC. TRAVIS FOLK 3515 WHITE HALL ROAD GREEN POND, SOUTH CAROLINA 29446

for a permit to excavate and place fill material in wetlands and waters of the

### **COMBAHEE RIVER**

within existing managed tidal impoundments (historic rice fields) of Paul and Dalton Plantation located at 3220 Wiggins Road in Green Pond, Colleton County, South Carolina (32.61392 Latitude/ -80.642816 Longitude)

### NOTICE

is hereby given that written statements regarding the proposed work will be received by the **Corps** until

### 15 Days from the Date of this Notice,

and SCDHEC will receive written statements regarding the proposed work until

### 30 Days from the Date of this Notice

from those interested in the activity and whose interests may be affected by the proposed work.

The proposed work consists of the excavation of 5.1 acres of wetlands and waters and the placement of excavated (fill) material into 10.8 acres of wetlands and waters within the existing managed tidal impoundment fields (historic rice fields) to construct new interior field-dikes and canals. The proposed work also includes the installation of new spillway boxes with risers. In

detail, the work consists of the following:

Section 1: The construction of Section 1 of the interior field-dikes and canals involves the excavation of a 2,606' long canal with a top width of 10', a bottom width of 8.25', and a depth of 10', and the construction of a 2,606' long field-dike with a top width of 12', a bottom width of 21', and a height of 5.5'. Approximately 8,807 cubic yards of material will be excavated from the canal and 8,759 cubic yards of that excavated material will be used to construct a new field-dike. The new field-dike will be constructed approximately 30' from the canal to establish a 30' wide berm that will be at the existing grade of the impoundment field. The construction of the Section 1 interior canal will impact 0.60 acres of wetlands and waters and the construction of the Section 1 field-dike will impact 1.26 acres of wetlands and waters.

Section 2: The construction of Section 2 of the interior field-dikes and canals involves excavation of a 1,018' long canal with a top width of 10', a bottom width of 8.25', and a depth of 10', and the construction of a 1,018' long field-dike with a top width of 12', a bottom width of 21', and a height of 5.5'. Approximately 3,440 cubic yards of material will be excavated from the canal and 3,421 cubic yards of that excavated material will be used to construct the new field-dike. The new field-dike will be constructed approximately 30' from the canal to establish a 30' wide berm that will be at the existing grade of the impoundment field. The construction of the Section 2 interior canal will impact 0.23 acres of wetlands and waters and the construction of the Section 2 field-dike will impact 0.49 acres of wetlands and waters.

Section 3: The construction of Section 3 of the interior field-dikes and canals involves excavation of a 2,017' long canal with a top width of 10', a bottom width of 8.25', and a depth of 10', and the construction of a 2,017' long field-dike with a top width of 12', a bottom width of 21', and a height of 5.5'. Approximately 6,816 cubic yards of material will be excavated from the canal and 6,779 cubic yards of that excavated material will be used to construct the new field-dike. The new field-dike will be constructed approximately 30' from the canal to establish a 30' wide berm that will be at the existing grade of the impoundment field. The construction of the Section 3 interior canal will impact 0.46 acres of wetlands and waters and the construction of the Section 3 field-dike will impact 0.97 acres of wetlands and waters.

Section 4: The construction of Section 4 of the interior field-dikes and canals involves excavation of a 1,439' long canal with a top width of 10', a bottom width of 8.25', and a depth of 10', and the construction of a 1,439' long field-dike with a top width of 12', a bottom width of 21', and a height of 5.5'. Approximately 4,863 cubic yards of material will be excavated from the canal and 4,836 cubic yards of that excavated material will be used to construct the new field-dike. The new field-dike will be constructed approximately 30' from the canal to establish a 30' wide berm that will be at the existing grade of the impoundment field. The construction of the Section 4 interior canal will impact 0.33 acres of wetlands and waters and the construction of the Section 4 field-dike will impact 0.69 acres of wetlands and waters.

Section 5: The construction of Section 5 of the interior field-dikes and canals involves excavation of a 867' long canal with a top width of 10', a bottom width of 8.25', and a depth of 10', and the construction of a 867' long field-dike with a top width of 12', a bottom width of 21', and a height of 5.5'. Approximately 2,930 cubic yards of material will be excavated from the canal and 2,914 cubic yards of that excavated material will be used to construct the new field-dike. The new field-dike will be constructed approximately 30' from the canal to establish a 30' wide berm that will be at the existing grade of the impoundment field. The construction of the Section 5 interior canal will impact 0.20 acres of wetlands and waters and the construction of the Section 5 field-dike will impact 0.42 acres of wetlands and waters.

Section 6: The construction of Section 6 of the interior field-dikes and canals involves excavation of a 2,250' long central canal with a top width of 19.5', a bottom width of 17', and a depth of 10', and the construction of a two (2) 2,250' long field-dikes with top widths of 12', bottom widths of 21', and heights of 5.5'. The central canal will be located between the two field-dikes. Approximately 15,208 cubic yards of material will be excavated from the central canal and 15,125 cubic yards of that excavated material will be used to construct the two new field-dikes. The two new field-dikes will be constructed approximately 18' from the central canal to establish two 18' wide berms that will be at the existing grade of the impoundment field. The construction of the Section 6 interior central canal will impact 1.01 acres of wetlands and waters and the construction of the Section 6 field-dikes will impact 2.17 acres of wetlands and waters.

Section 7: The construction of Section 7 of the interior field-dikes and canals involves excavation of a 968' long canal with a top width of 10', a bottom width of 8.25', and a depth of 10', and the construction of a 968' long field-dike with a top width of 12', a bottom width of 21', and a height of 5.5'. Approximately 3,271 cubic yards of material will be excavated from the canal and 3,253 cubic yards of that excavated material will be used to construct the new field-dike. The new field-dike will be constructed approximately 30' from the canal to establish a 30' wide berm that will be at the existing grade of the impoundment field. The construction of the Section 7 interior canal will impact 0.22 acres of wetlands and waters and the construction of the Section 7 field-dike will impact 0.47 acres of wetlands and waters.

Section 8: The construction of Section 8 of the interior field-dikes and canals involves excavation of a 2,788' long central canal with a top width of 19.5', a bottom width of 17', and a depth of 10', and the construction of a two (2) 2,788' long field-dikes with top widths of 12', bottom widths of 21', and heights of 5.5'. The central canal will be located between the two field-dikes. Approximately 18,844 cubic yards of material will be excavated from the central canal and 18, 741 cubic yards of that excavated material will be used to construct the two new field-dikes. The two new field-dikes will be constructed approximately 18' from the central canal to establish two 18' wide berms that will be at the existing grade of the impoundment field. The construction of the Section 8 interior central canal will impact 1.25 acres of wetlands and waters and the construction of the Section 8 field-dikes will impact 2.69 acres of wetlands and waters.

Section 9: The construction of Section 9 of the interior field-dikes and canals involves excavation of a 2,223' long canal with a top width of 10', a bottom width of 8.25', and a depth of 10', and the construction of a 2,223' long field-dike with a top width of 12', a bottom width of 21', and a height of 5.5'. Approximately 7,512 cubic yards of material will be excavated from the canal and 7,471 cubic yards of that excavated material will be used to construct the new field-dike. The new field-dike will be constructed approximately 30' from the canal to establish a 30' wide berm that will be at the existing grade of the impoundment field. The construction of the Section 9 interior canal will impact 0.51 acres of wetlands and waters and the construction of the Section 9 field-dike will impact 1.07 acres of wetlands and waters.

Section 10: The construction of Section 10 of the interior field-dikes and canals involves excavation of a 1,142' long canal with a top width of 10', a bottom width of 8.25', and a depth of 10', and the construction of a 1,142' long field-dike with a top width of 12', a bottom width of 21', and a height of 5.5'. Approximately 3,859 cubic yards of material will be excavated from the canal and 3,838 cubic yards of that excavated material will be used to construct the new field-dike. The new field-dike will be constructed approximately 30' from the canal to establish a 30' wide berm that will be at the existing grade of the impoundment field. The construction of the Section 10 interior canal will impact 0.26 acres of wetlands and waters and the construction of the Section 10

field-dike will impact 0.55 acres of wetlands and waters.

<u>Spillway Boxes:</u> Eight (8) new 28' long X 5' wide wooden spillway boxes with 6' tall flash board risers will be installed in new and existing embankments. Bulkheads 8-10' wide on either side of the spillway boxes will also be constructed.

### Project Purpose

The overall project purposes include enhance water circulation capability, improve and diversify habitats within the managed tidal impoundment for wildlife species, and minimize the potential negative impact that would result if the perimeter river field-dike were to fail. The proposed new embankments and water control structures will allow the larger managed tidal impoundment fields to be managed as smaller fields with different habitat types and water depths. These habitats will be enhanced by improved water circulation capability. The proposed project would also serve to protect the majority of the rice field if one portion of the perimeter river field-dike were to fail.

Project Sections 1, 3, 4, 5, 6, 8, and 9 are proposed in order to restore two canals that ran from the perimeter river field-dike to the bordering upland. Project Sections 1, 3, 4, and 5 will border the existing field-dike but will restore the former canal that once ran between these two field-dikes. Project Sections 6, 8, and 9 consist of constructing field-dikes on both sides of the former central canal. These canals will serve the purpose of allowing better water flow in areas of the tidal impoundment fields that are farthest from the river. Currently, new water that enters the field through a trunk must travel across the tidal impoundment field for some distance before reaching areas near the hill. Currently, the water can lose dissolved oxygen and contain filamentous algae before it reaches areas close to the uplands. These canals will greatly improve the ability to circulate water through the managed tidal impoundment fields, which will also create higher quality wildlife habitat.

Project Sections 2, 7, and 10 will serve to compartmentalize the large managed tidal impoundment fields. Project Section 2 will create two smaller impoundment fields of 68 acres and 93 acres. Project Section 7 will create two smaller impoundment fields of 48 acres and 71 acres. Project Section 10 will create two smaller impoundment fields of 112 acres and 81 acres. These cross field-dikes (Sections 2, 7, and 10) will serve two purposes. First, they will serve to minimize impacts if a portion of the perimeter river field-dike were to fail. A Corps permit was issued recently (SAC 2011-01131-1T) to improve stability of the perimeter river field-dike, but the additional insurance of the proposed cross-dikes will be helpful. Second, portions of the managed tidal impoundment fields closer to the Combahee River are higher than portions of the fields closer to the uplands. The proposed cross field-dikes will help compartmentalize areas of similar elevation. This similarity in elevation across a management unit will better help manage for plants valuable to wildlife and manage for migrating shorebirds in fall and spring.

The proposed project will create multiple different managed tidal impoundment fields where water levels can be controlled independently, thus resulting in different water management regimes. Consequently, a variety of management strategies will be used in the resulting water units. Some tidal impoundment fields will be managed to promote nektonic species. Flooding during times of peak availability of young fishes from the river is expected to result in a productive fishery within a managed tidal impoundment field. This will provide excellent habitat for bald eagles and ospreys. Some tidal impoundment fields will be managed as moist soil units. These managed tidal impoundment fields have brackish water for some time and management for widgeongrass (*Ruppia maritime*) is the management regime that will provide the greatest habitat value.

Managing multiple managed tidal impoundment fields with a variety of water levels will also benefit migrating shorebirds. During spring and fall migrations, numerous bi-polar shore bird species pass through the ACE Basin. They obtain high-energy foods required for migration from recently exposed mud flats in these managed tidal impoundment fields. By having multiple units, managers are able to stagger mud flat exposure, and thereby access to food resources, over a longer period of time. Once these managed tidal impoundment fields dry out after a period of dewatering, their value to migrating shorebirds is minimal. The ability to dewater a different unit once one has dried will be of great conservation utility for plantation managers.

### Avoidance and Minimization

According to the applicant, avoidance strategies are few for the proposed work. Not performing the proposed work would not meet the stated goal of improving water circulation capability and enhancing wildlife habitat value if no work were occurred. The applicant stated that purchasing a property with fully functioning managed tidal impoundment fields is either cost prohibitive or does not exist. Additional impacts to wetlands and waters were avoided by keeping the width of the proposed field-dikes to dimensions that are sufficient for access with traditional agricultural equipment and implements.

The applicant has minimized impacts by restoring the original layout of the managed tidal impoundment fields. The proposed location of the new embankments (field-dike, berm, canal complex) nearly replicates exactly the interior embankments that once occurred within the project area. The managed tidal impoundments were initially constructed with the proposed layout and it can be assumed that they functioned properly.

To further minimize impacts, all proposed work will occur in the dry after the managed tidal impoundments have been drained in late winter and early spring. Also, all fill material needed for the proposed work will be obtained from within the managed tidal impoundment fields. The proposed field-dike construction and canal excavation activities will occur simultaneously. The proposed work will be completed with a long-reach excavator on tracks using wooden mats for stability if required. As the excavator proceeds down the length of the proposed field-dike and canal, the operator will simultaneously excavate the new canal and use the excavated material (fill) to construct the field-dike. The machinery will start at one end of a proposed field-dike/canal and continue until one section is completed. The new wooden spillway boxes will be installed as the proposed dikes are constructed. Also, bulkheads will be constructed on either side of the newly installed spillway boxes to provide stability for the portion of the field-dike that crosses the spillway box. By conducting all of the work simultaneously, the amount of traffic traveling across the beds of the managed tidal impoundment fields will be minimized.

The newly constructed field-dikes will attempt to be revegetated by broadcast seeding of a fast growing herbaceous species (e.g. browntop millet (*Panicum ramosum*). Based on past experience, this area will also revegetate form native plant species already established in the tidal impoundment.

### Compensatory Mitigation

The applicant has not developed a compensatory mitigation plan for the proposed project for several reasons. They state that first, the proposed project aids in the management of a more diverse set of habitats by allowing multiple water management regimes within a fully-functioning tidal impoundment. Construction of new field-dikes is the only practical way to allow the property owner to achieve his goal of increased water circulation capability and enhanced wildlife habitat

quality. Second, the proposed activity also is in line with traditional activities within managed tidal impoundments in the ACE Basin. Third, another motivation of this project is to protect the majority of the managed tidal impoundment fields if one portion of the perimeter river field-dike were to fail. Recent permitting history demonstrates that sections of the perimeter river field-dike are under extreme erosion and correction of this will be a long-term project. A Corps permit was issued recently (SAC 2011-01131-1T) to improve stability of the perimeter river field-dike. Construction of the proposed interior field-dikes will limit the impact of a perimeter river field-dike breach to a minor portion of the managed tidal impoundment field rather than allowing it to impact the majority of a field. Based on these reasons, the applicant believes that compensatory mitigation is not required for the proposed project.

NOTE: Plans depicting the work described in this notice are available and will be provided, upon receipt of a written request, to anyone that is interested in obtaining a copy of the plans for the specific project. The request must identify the project of interest by public notice number and a self-addressed stamped envelope must also be provided for mailing the drawings to you. Your request for drawings should be addressed to the

U.S. Army Corps of Engineers ATTN: REGULATORY DIVISION 69A Hagood Avenue Charleston, South Carolina 29403-5107

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the South Carolina Department of Health and Environmental Control in accordance with provisions of Section 401 of the Clean Water Act. As such, this notice constitutes a request, on behalf of the applicant, for certification that this project will comply with applicable effluent limitations and water quality standards. The work shown on this application must also be certified as consistent with applicable provisions the Coastal Zone Management Program (15 CFR 930). The District Engineer will not process this application to a conclusion until such certifications are received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact 15.9 acres of estuarine substrates and emergent wetlands utilized by various life stages of species comprising the red drum, shrimp, and snapper-grouper management complexes. Our initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

The District Engineer has consulted the most recently available information and has determined that the project will have no effect on any Federally endangered, threatened, or proposed species and will not result in the destruction or adverse modification of designated or proposed critical habitat. This public notice serves as a request to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for any additional information they may have on whether any listed or proposed endangered or threatened species or designated or

proposed critical habitat may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1973 (as amended).

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), this public notice also constitutes a request to Indian Tribes to notify the District Engineer of any historic properties of religious and cultural significance to them that may be affected by the proposed undertaking.

In accordance with the NHPA, the District Engineer has also consulted the latest published version of the National Register of Historic Places for the presence or absence of registered properties, or properties listed as being eligible for inclusion therein, and this worksite is not included as a registered property or property listed as being eligible for inclusion in the Register. To insure that other cultural resources that the District Engineer is not aware of are not overlooked, this public notice also serves as a request to the State Historic Preservation Office to provide any information it may have with regard to historic and cultural resources.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps of Engineers cannot undertake to adjudicate rival claims.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

If there are any questions concerning this public notice, please contact (**Tracy Dotolo Sanders**) at 843-329-8044 or toll free at 1-866-329-8187.



20 Miles

Project Title: Paul & Dalton rice field renovation Project Location: 3220 Wiggins Road Green Pond, SC Colleton County 32° 36' 58.53" N, 80° 38' 33.45" W

Date

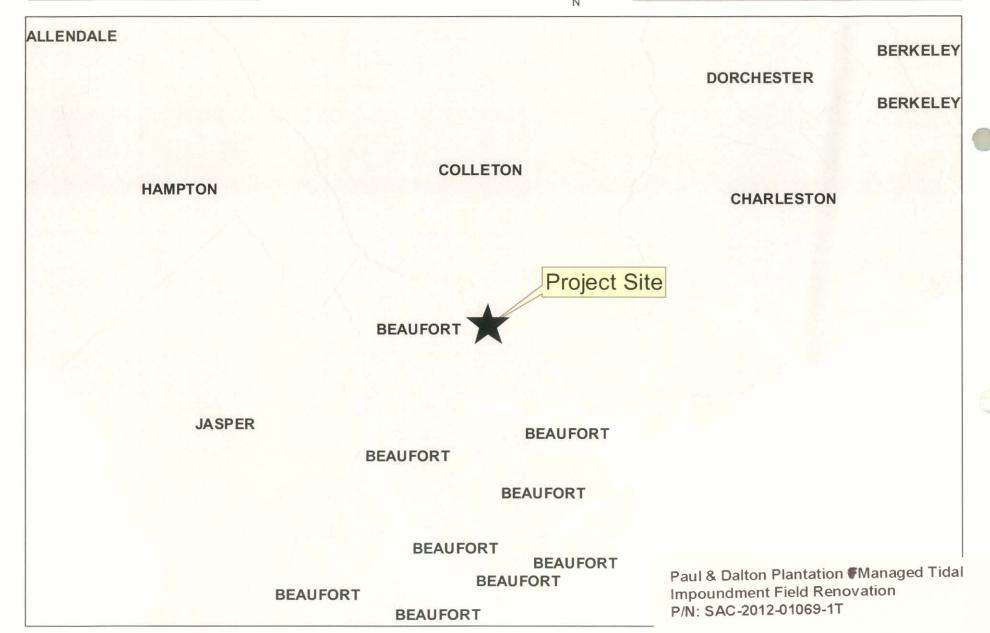
Applicant: Tony Bakker

Agent: Travis Folk, Folk Land Management

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Drawing Scale

1": 42,000'



November 1, 2012

Sheet 1 of 13



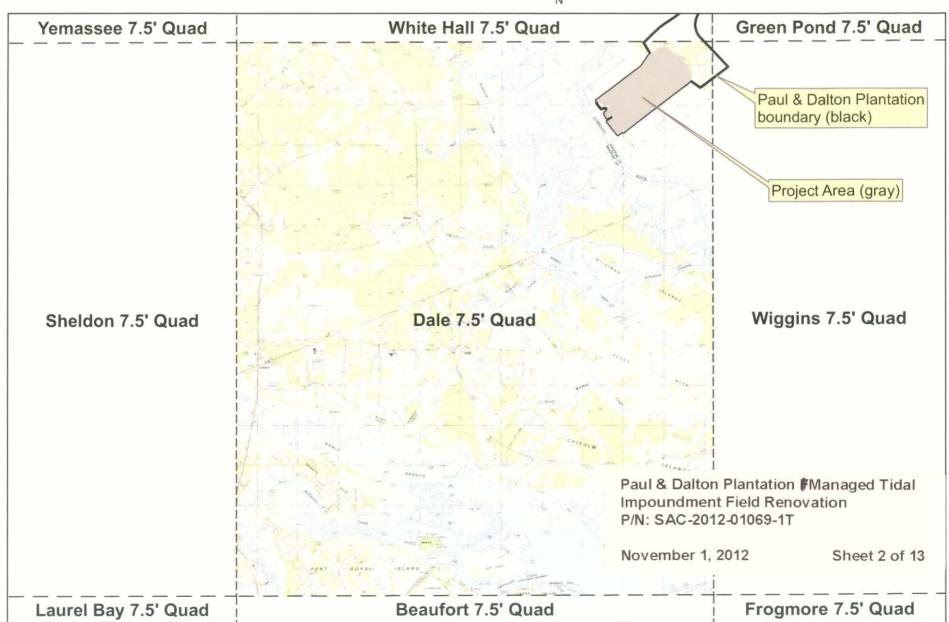
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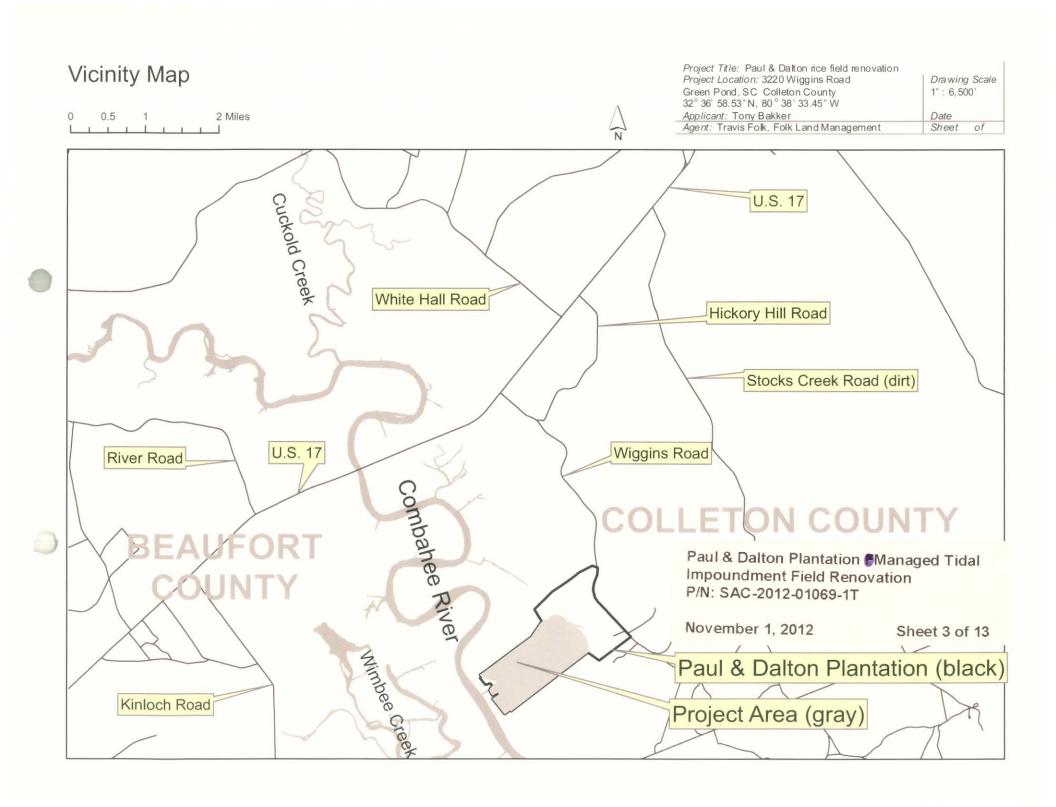
Project Title: Paul & Dalton rice field renovation Project Location: 3220 Wiggins Road Green Pond, SC Colleton County 32° 36' 58.53" N. 80° 38' 33.45" W

Drawing Scale 1": 7,500"

Applicant: Tony Bakker

Date Agent: Travis Folk, Folk Land Management Sheet





# Project Area within Paul & Dalton Plantation boundary

1,250 2,500 5.000 Feet

2009 aerial



Project Title: Paul & Dalton rice field renovation Project Location: 3220 Wiggins Road Green Pond, SC Colleton County 32° 36' 58.53" N, 80° 38' 33.45" W

Date

Drawing Scale

of

1": 1,750"

Sheet

Applicant: Tony Bakker Agent: Travis Folk, Folk Land Management

**Long Brow Plantation Long Brow Plantation Upland Upland** tidal rice fields plantation boundary project area boundary **Cheeha-Combahee Plantation** Paul & Dalton Plantation Managed Tidal Impoundment Field Renovation P/N: SAC-2012-01069-1T

# Existing dikes, spillways, and trunks within Project Area

Project Title: Paul & Dalton rice field renovation Project Location: 3220 Wiggins Road Drawing Scale Green Pond, SC Colleton County 1": 850' 32° 36' 58.53" N, 80° 38' 33.45" W Applicant: Tony Bakker

Agent: Travis Folk, Folk Land Management

Date Sheet

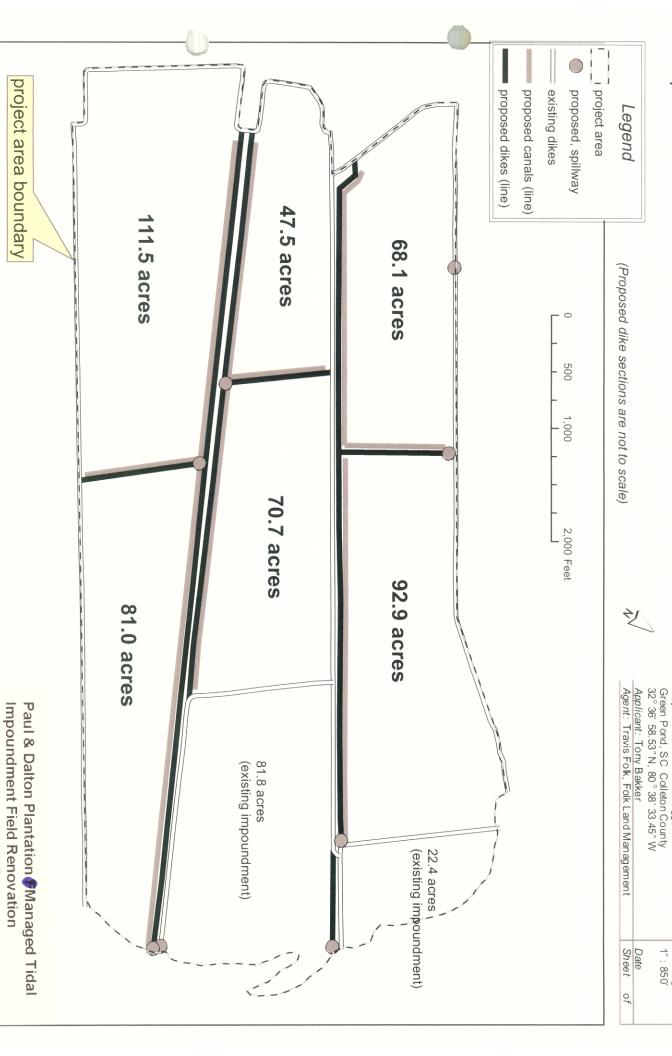
1,920 Feet 480

Existing Features existing dikes existing, spillway, existing, trunk, 7==== LEVEE 22.4 acres 171.4 acres LEVEE 81.8 acres 324.6 acres VE E LEVEE LEVEE project area boundary Paul & Dalton Plantation Managed Tidal Impoundment Field Renovation P/N: SAC-2012-01069-1T

# Proposed dike/canal sections and water control structures

Project Title: Paul & Dalton rice field renovation Project Location: 3220 Wiggins Road

Drawing Scale 1": 850'



November 1, 2012

Sheet 6 of 13

P/N: SAC-2012-01069-1T

Identification of proposed dike/canal sections (numbers) and water control structures (letters) (cross sections also shown) Project Title: Paul & Dalton rice field renovation Project Location: 3220 Wiggins Road

Green Pond, SC Colleton County 32° 36' 58.53" N. 80° 38' 33.45" W

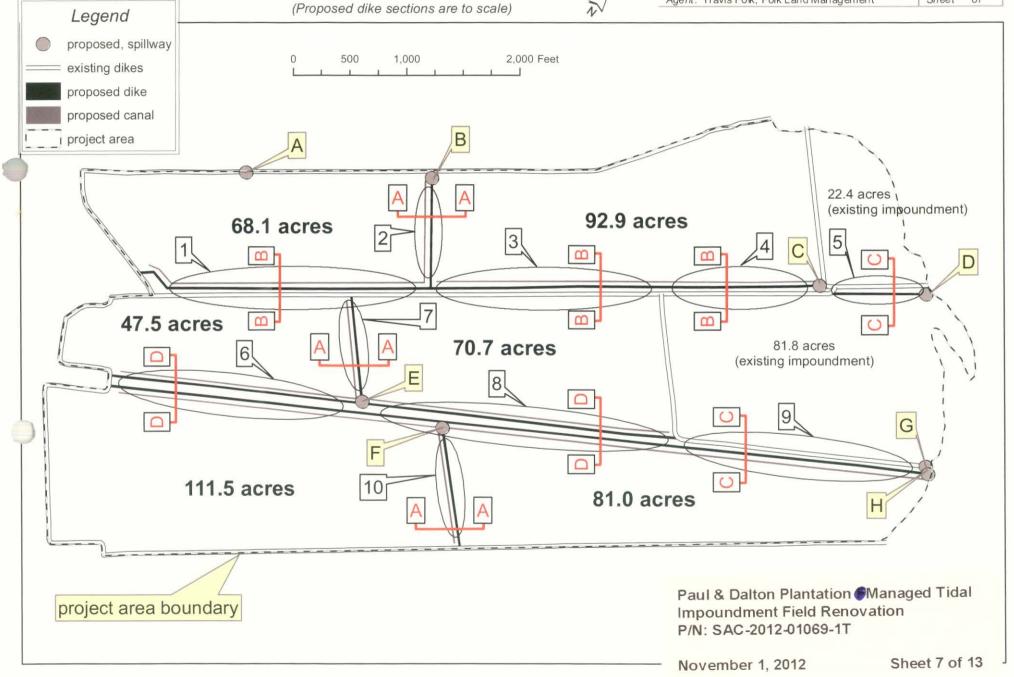
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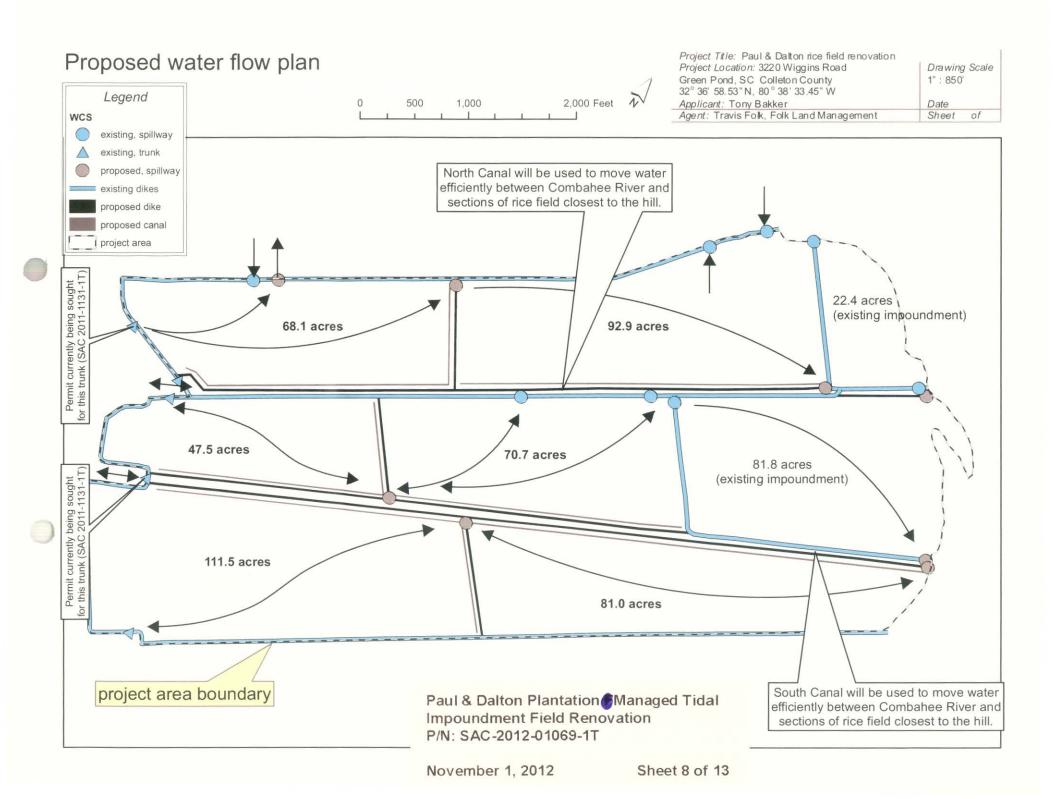
Applicant: Tony Bakker Agent: Travis Folk, Folk Land Management

Sheet of

1": 850'

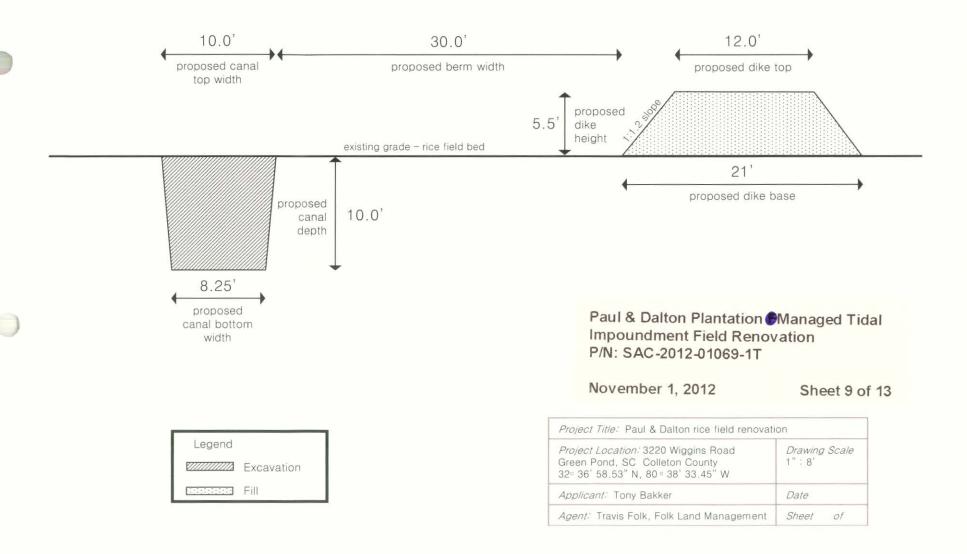
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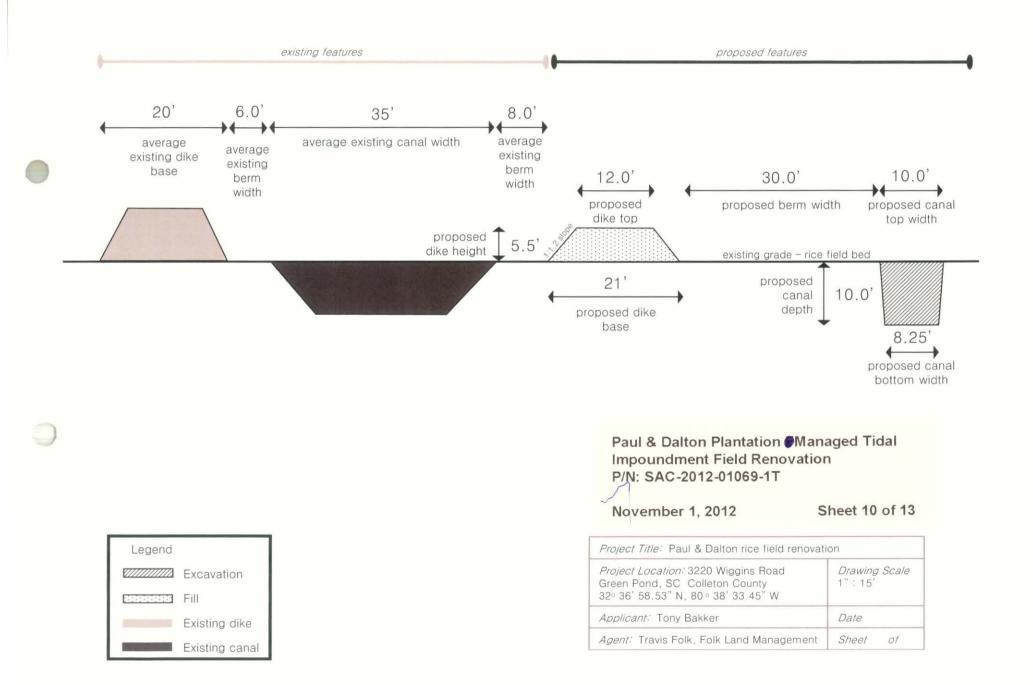
# Cross Section A-A (typical)

proposed fill for cross dike & excavation for adjacent canal



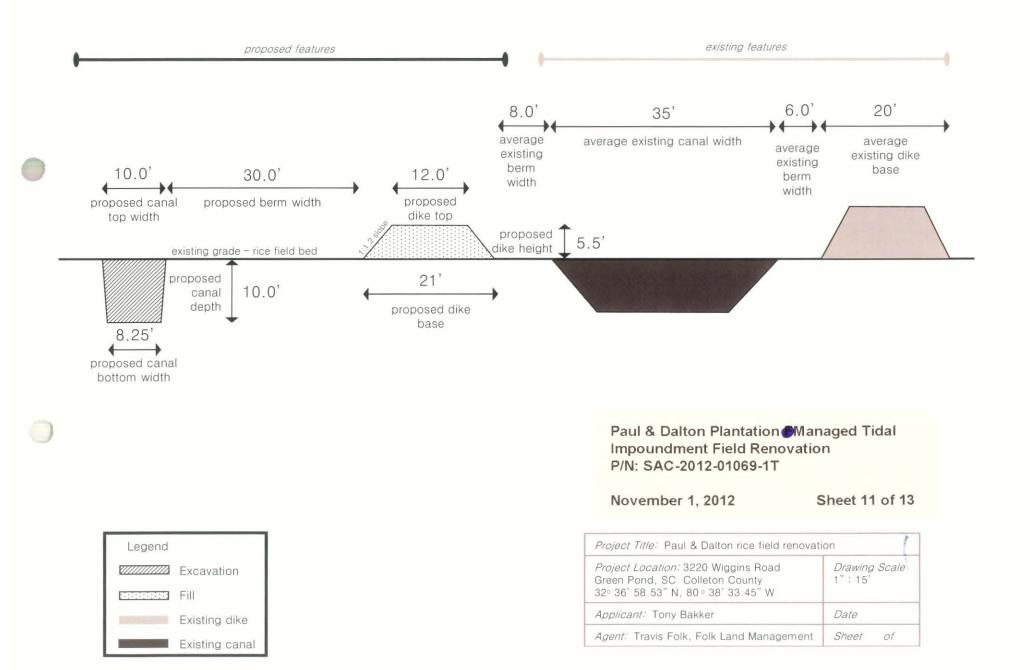
# Cross Section B-B (typical)

proposed fill for single dike & excavation for adjacent canal with existing dike to left of canal



## Cross Section C-C (typical)

proposed fill for single dike & excavation for adjacent canal with existing dike to right of canal



# Cross Section D-D (typical)

Proposed fill for double dike & excavation for central canal

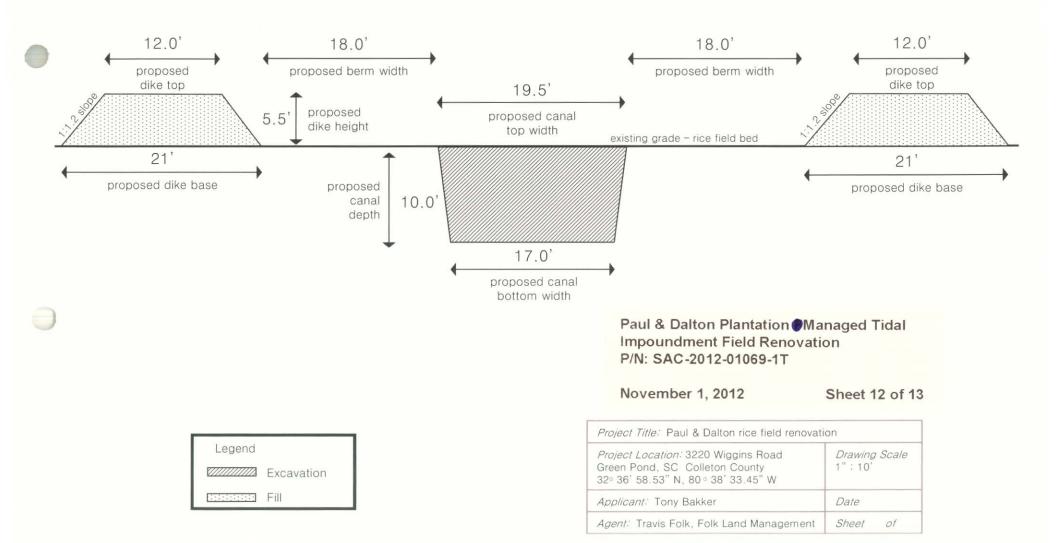
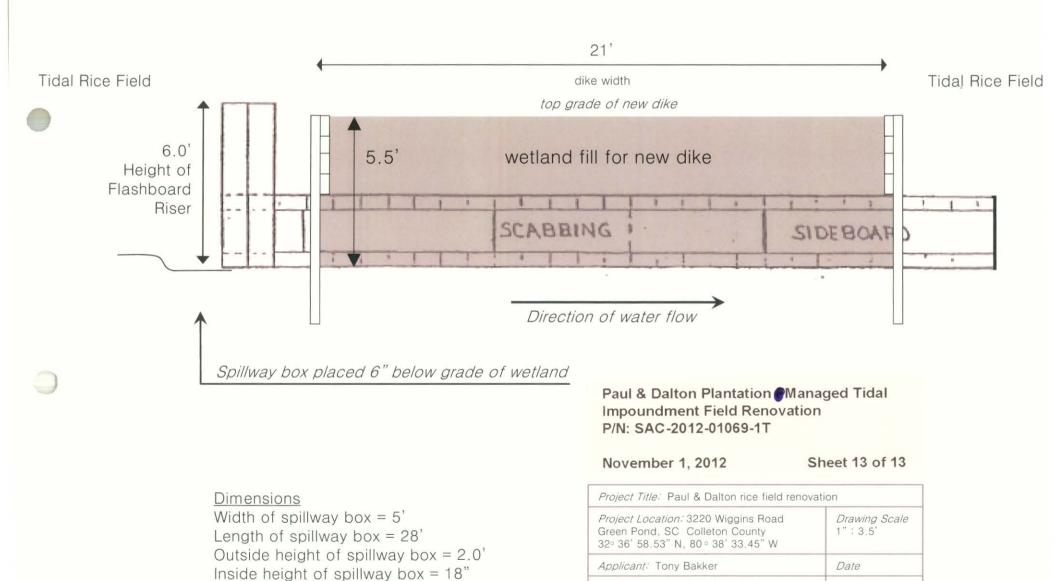


Illustration of Typical Wooden Spillway Box and Flashboard Rizer to be used in Various Locations Throughout Rice Field

Height of flashboard rizer = 6.0'



Agent: Travis Folk, Folk Land Management

Sheet

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