



DEPARTMENT OF THE ARMY
SAVANNAH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 889
SAVANNAH, GEORGIA 31402-0889

DEC 24 2008

Regulatory Division
200800880

JOINT PUBLIC NOTICE
Savannah District/State of Georgia

The Savannah District has received an application for a Department of the Army Permit, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), as follows:

Application Number: 200800880

Applicant: Gross Land & Timber Company
Attn: Mr. Bill Gross
P.O. Box 365
Kingsland, Georgia 31512

Agent: Environmental Resource Solutions, Inc.
1597 The Greens Way, Suite 200
Jacksonville Beach, Florida 32250

Location of Proposed Work: The project site is located on a +/- 297 acre tract of land located southwest of the intersection of Interstate 95 and State Road 40, approximately 3 miles north of the Florida-Georgia Border in Camden County, Georgia.

Description of Work Subject to the Jurisdiction of the US Army Corps of Engineers: To impact 15.68 acres of jurisdictional wetlands and 6.63 acres of non-jurisdictional wetlands associated with the construction of the Kingsland Town Center, a retail and residential development. To mitigate for the fill of approximately 15.68 acres of jurisdictional wetlands, the applicant has proposed the purchase of 138 mitigation credits from Marshlands Mitigation Bank.

For additional information, see the attached "Narrative Project Description" supplied by the applicant. The opinions, views and/or conclusions that are expressed by the applicant in this narrative do not necessarily reflect those of the US Army Corps of Engineers.

BACKGROUND

This Joint Public Notice announces a request for authorizations from both the US Army Corps of Engineers and the State of Georgia. The applicant's proposed work may also require local governmental approval.

STATE OF GEORGIA

Water Quality Certification: The Georgia Department of Natural Resources, Environmental Protection Division, intends to certify this project at the end of 30 days in accordance with the provisions of Section 401 of the Clean Water Act, which is required by an applicant for a Federal Permit to conduct an activity in, on, or adjacent to the waters of the State of Georgia. Copies of the application and supporting documents relative to a specific application will be available for review and copying at the office of the Georgia Department of Natural Resources, Environmental Protection Division, Water Protection Branch, 4220 International Parkway, Suite 101, Atlanta, Georgia 30354, during regular office hours. A copier machine is available for public use at a charge of 25 cents per page. Any person who desires to comment, object, or request a public hearing relative to State Water Quality Certification must do so within 30 days of the State's receipt of application in writing and state the reasons or basis of objections or request for a hearing. The application can also be seen in the Savannah District US Army Corps of Engineers, Regulatory Branch, 100 West Oglethorpe Avenue, Savannah, Georgia.

State-owned Property and Resources: The applicant may also require assent from the State of Georgia which may be in the form of a license, easement, lease, permit, or other appropriate instrument.

Georgia Coastal Management Program: Prior to the Savannah District Commander making a final permit decision on this application, the project must be certified by the Georgia Department of Natural Resources, Coastal Resources Division, to be consistent with applicable provisions of the State of Georgia Coastal Management Program (15 CFR 930). Anyone wishing to comment on Coastal Management Program certification of this project should submit comments in writing within 30 days of the date of this notice to the Federal Consistency Coordinator, Ecological Services Section, Coastal Resources Division, Georgia Department of Natural Resources, One Conservation Way, Brunswick, Georgia 31523-8600 (Telephone 912-264-7218).

US ARMY CORPS OF ENGINEERS

The Savannah District must consider the purpose and the impacts of the applicant's proposed work, prior to a decision on issuance of a Department of the Army Permit.

Cultural Resources Assessment: Review of the latest published version of the National Register of Historic Places indicates that no registered properties or properties listed as eligible for inclusion are located at the site or in the area affected by the proposed work. Presently unknown archaeological, scientific, prehistorical, or historical data may be located at the site and could be affected by the proposed work.

Endangered Species: Pursuant to Section 7(c) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), we request from the US Department of the Interior, Fish and Wildlife Service and the US Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, or any other interested party, information on whether any species listed or proposed for listing may be present in the area.

Public Interest Review: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. 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 proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal 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, mineral needs, considerations of property ownership and in general, the needs and welfare of the people.

Consideration of Public Comments: The US Army Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Native American Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the US Army Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. 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 proposed activity.

Application of Section 404(b)(1) Guidelines: The proposed activity involves the discharge of dredged or fill material into the waters of the United States. The Savannah District's evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under the authority of Section 404(b) of the Clean Water Act.

Public Hearing: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application for a Department of the Army Permit. Requests for public hearings shall state, with particularity, the reasons for requesting a public hearing. The decision whether to hold a public hearing is at the discretion of the District Engineer, or his designated appointee, based on the need for additional substantial information necessary in evaluating the proposed project.

Comment Period: Anyone wishing to comment on this application for a Department of the Army Permit should submit comments in writing to the Commander, US Army Corps of Engineers, Savannah District, Attention: Regulatory Division, P.O. Box 889, Savannah, Georgia 31402-0889, no later than 30 days from the date of this notice. Please refer to the applicant's name and the application number in your comments. If you have any questions, please contact Mark Padgett at (912) 652-5052.

Enclosures

1. Narrative Project Description (10 pages)
2. Avoidance and Minimization Progression.
3. Project Location Map.
4. Site Development Plan.

INTRODUCTON

The applicant, W. H. (Bill) Gross of Gross Timber and Land, LLC, seeks an Individual Permit to impact 15.68 acres of wetlands in order to construct the Kingsland Town Center on approximately 297 acres± southwest of the intersection of Interstate 95 (I-95) and State Road 40 (SR 40), approximately three miles north of the Florida-Georgia border in Camden County (Exhibit 1). The project site is ideally situated for a town center type development, located within 20 minutes of the Jacksonville International Airport (JIA) to the south and the Kings Bay Naval Submarine Base to the east. The project provides “infill” development amidst adjacent urban and residential development.

The proposed town center will provide an enduring, walkable, and open-air, multiuse development that is organized around an identifiable gathering place where citizens can enjoy convenience and a sense of community. It will be anchored by retail, dining, and leisure uses, as well as by a residential community on the western portion of the site. The development will also likely include office space, civic and cultural use facilities. Over time, the town center should evolve into a dense, compact, and diverse part of the community, with strong connections to its surroundings.

BACKGROUND

The project site was previously owned by a trust (since 2000), of which Bill Gross is associated with, known as the Gross Family Limited Partnership, LLC. In February 2008 all shares were purchased by Mr. Gross of Gross Timber and Land, LLC in response to commercial development interest that was initiated approximately one year earlier in response to local pressure for increased commercial/retail services. The selection of the project site was the result of a thorough retail marketing analysis of the I-95 corridor through south Georgia that ultimately identified the subject parcel as the most ideal site based on demographics, existing infrastructure (sewer, road, and utilities), environmental considerations, tax base statistics, visibility, and major arterial access. The decision was also driven by the Department of Community Affairs and the local planning and zoning department's preference for clustered residential/commercial development. Existing retail and commercial services for the Camden County area are scattered and non-cohesive. Market analyses indicate that a town center development would be warranted, given existing and project demographics, approximately 22 miles north of Jacksonville. This coincides almost exactly with the proposed project site that occurs at a major interchange.

EXISTING CONDITIONS

The site is currently zoned A-R, Agricultural-Residential and has been solely used for silvicultural purposes. A large portion of the proposed project site was timbered within the past two years.

Soils According to the *Soil Survey of Camden and Glynn Counties, Georgia* (U.S. Department of Agriculture – Natural Resource Conservation Service, 1977) the following soil series are present on the site: Albany (Ada), Pelham (Pe), Pottsburg (Po), Sapelo (Sa), and Rutledge (Ru). The majority of the soils (44%) are mapped as Rutledge (Ru) fine sand which consists of nearly level, poorly drained, rapidly permeable soils located in narrow drainage ways. According to the soil survey, the Sapelo (Sa) soils comprise 38% of the soil on the site and consist of level, poorly drained, moderately permeable soils, that occur on broad flatwoods. Approximately 11% of the site are mapped as Pottsburg (Po) soil series, consisting of nearly level, poorly drained, moderately permeable soils that are located on flatwoods. The Pelham (Pe) soil series are mapped on approximately 5% of the project site and consist of deep, poorly drained, moderately permeable soils which are located on broad flats and in shallow depressions and drainage ways. The Albany (Ada) soil series comprises approximately 2% of the site according to the soil survey and consists of nearly level, gently sloping, somewhat poorly drained, moderately slowly permeable soils located on narrow to broad ridges and on isolated knolls.

Land Use The project parcel is located within the St. Marys River drainage basin. The surrounding land use is high density residential to the south and west, with high density retail/commercial to the north. Interstate 95 comprises the east boundary of the property. The site has historically been used for silviculture and portions of the site were logged approximately 1-2 years ago. The existing land use is comprised of four upland communities (two natural and two manmade) that comprise approximately 84% of the site and three land use types classified as wetlands, comprising roughly 16% of the site. The onsite wetlands were flagged pursuant to the 1987 COE Wetland Delineation Manual.

Uplands Natural uplands comprise approximately 236 acres± (79%) of the site in the form of upland hardwoods, pine flatwoods. May Creek Drive, an improved road, bisects the eastern from the western portion of the site. A sewer line easement bisects the northern and southern portions of the site. These manmade land use types comprise approximately 6% of the total site.

Upland Hardwoods (Land Use Type #2) – 14.25 acres± The upland hardwoods community (identified as Land Use Type #2 on Exhibit 3) covers approximately 14.25 acres± (5%) of the site and occurs adjacent to the wetlands on the northwest and southeast quadrants of the site and on the west side of the project site. The canopy is dominated by live oak (*Quercus virginiana*), southern magnolia (*Magnolia grandiflora*), water oak (*Quercus nigra*), with less dense laurel oak (*Quercus laurifolia*). The subcanopy consists of American holly (*Ilex opaca*), sweetgum (*Liquidambar styraciflua*), sweetbay (*Magnolia virginiana*) and wax myrtle (*Myrica cerifera*). The ground cover consists of saw palmetto (*Serenoa repens*), bracken fern (*Pteridium aquilinum*), with a minor component of cinnamon fern (*Osmunda cinnamon*).

Pine Flatwoods (Land Use Type #5) – 213.57 acres± The pine flatwoods (identified as Land Use Type #5 on land use map) community comprises approximately 203.88 acres± (72%) of the project site and is dominated by loblolly pine (*Pinus taeda*), with an occasional slash pine (*Pinus taeda*), water oak, and magnolia. The subcanopy consists of American holly, sweetgum, wax myrtle, and sweetbay. The ground cover species is dominated by saw palmetto, gallberry (*Ilex glabra*), bracken fern, and some cinnamon fern. The pine flatwoods north of the east-west sewer line has been logged within the past two years; however, this community type south of the sewer easement is intact.

Wetlands and Surface Waters Wetlands comprise 48.69 acres± (16%) of the site in the form of mixed wetland hardwoods, mixed pine/hardwood wetlands, and sawgrass marsh. A ditch that receives runoff from the railroad tracks, SR 40, and the adjacent service road occurs in the northeastern portion of the site and extends through Wetland D, under the sewer easement, and south through Wetland A. The ditch was excavated by Georgia Department of Transportation (GDOT) in the early 1970's and has significantly altered the hydrology of the adjacent wetlands. Please refer to Exhibit 4 for the identification of each wetland.

Mixed Wetland Hardwoods (Land Use Type #1) – 29.84 acres± The mixed wetland hardwoods are identified as Land Use Type #1 on Exhibit 3 and comprise approximately 30.73 acres± (12%) scattered throughout the project site. The canopy is dominated by tupelo (*Nyssa aquatic*) and red maple (*Acer rubrum*). The subcanopy is comprised of sweetbay and the ground cover includes cinnamon fern (*Osmunda cinnamonea*), chain fern (*Woodwardia virginica*), royal fern (*Osmunda regalis*) and some sawgrass (*Cladium jamaicense*). Wetland A continues off-site and eventually enters May Creek to the south.

The quality of Wetland D located in the northeast quadrant has been heavily affected by the ditch excavated in order to accommodate stormwater runoff from State Highway 40. This is evident in the excavated spoil that lines the ditch. The channel has altered the hydrology within the wetland, causing water to move rapidly through the system without any opportunity for attenuation normally associated with sinuous systems. This reduced hydroperiod has a negative effect on the rate of sedimentation and pollutant removal capacity within the wetland system. Channelization also occurs to Wetland A, located south of the sewer easement. The channel was apparently dug to exacerbate flow westward into the main north-south portion of Wetland A.

Mixed Pine/Hardwoods Wetland (Land Use Type #3) – 17.72 acres± The mixed pine/wetland hardwood (identified as Land Use Type #3 on Exhibit 3) canopy is a mixture of loblolly pine (*Pinus taeda*), tupelo (*Nyssa aquatic*), and red maple (*Acer rubrum*). The subcanopy is comprised of sweetbay and the ground cover includes cinnamon fern (*Osmunda cinnamomea*), chain fern (*Woodwardia virginica*), royal fern (*Osmunda regalis*) and some saw grass. Wetland F is comprised entirely of this community type and the northern portion of Wetland I consists of this type of wetland. These wetland are moderate in quality with past timber operations having had some negative effects on hydrology and vegetative composition.

Borrow Pit (Land Use Type #7) – 7.70 acres± An existing borrow pit, excavated by GDOT for the construction of I-95 occurs in the southwest portion of the project site. The existing pond will be excavated and enlarged as an integral part of the proposed stormwater retention and treatment system.

Non-Jurisdictional Wetlands (6.63 acres±) There are three non-jurisdictional wetlands in the southwestern quadrant of the subject tract and one in the northwestern quadrant. Wetlands G and K have canopies that categorize them as Land Use Type #3 with tupelo, red maple, and occasional loblolly pine. The subcanopy is comprised of sweetbay and red bay (*Persea borbonia*). The ground cover is comprised of cinnamon fern, chain fern, and fetter bush (*Lyonia lucida*). Wetland F is comprised of a pine-dominated canopy. The remaining wetland (Wetland M) does not have a dominant canopy, but is composed of sawgrass with a few small tupelos and red maples throughout.

GENERAL PERMIT CRITERIA AND EVALUATION FACTORS

Public Need There is an ever increasing need for a retail/commercial center, and associated residential community, to service Camden County and the surrounding area. The population of Camden County is projected to grow 21% between 2000 and 2015 according to a 2005 report by the Georgia Office of Planning and Budget. This expansion is being bolstered not only by an increasing military presence and a new vessel as a result of the Kings Bay Naval Submarine base, but also by growing residential and industrial development. This growth estimate is very conservative, particularly given the fact that Kingsland Planning and Zoning recently approved the annexation and rezoning from Agricultural-Forestry (A-F) to Planned Development (PD) of 15,000 acres into the City of Kingsland. The land, located west of I-95 near U.S. 17/SR 40, is owned by Crescent Resources, LLC, the parent company of Landmar. Plans to construct 40,000 residential units, nearly doubling the population of Camden County, as part of this development further bolster the need for commercial/retail services. Additionally, nearby Brunswick has been identified in a University of Georgia study as one of the top three areas of growth in Georgia.

Testimony to the need for the proposed Kingsland Town Center is given by the commitment of a number of major retailers to establish businesses at the proposed Town Center. In addition, negotiations are underway for Macy, Belk, or Penney and Dillard's to join suit. The City of Kingsland is very supportive of the proposed Town Center as evidenced by the support letters from Kenneth Smith (Mayor), Gwendolyn Mungin (City Manager), and Ken Kessler (Community Planning and Development Director) (Attachment C). In addition to the provision of retail/commercial services, the Kingsland Town Center will provide much needed jobs to hundreds of local residents.

Alternatives Analysis At least eleven alternate sites were given cursory consideration based on their proximity to Kingsland and general suitability for the type of proposed development (Exhibit 5). The marketing analysis concluded that for the project to be economically viable, it must be situated with frontage on Interstate 95, which immediately eliminated Sites 4, 5, 6, 9, and 10. Additionally, the discovery of availability due to complex living trust issues further eliminated Site 7 from consideration.

The remaining five sites (Sites 1, 2, 3, 8, and 11) were more thoroughly evaluated to determine suitability for the proposed development. Factors evaluated include wetlands, utilities, access, floodplain issues, and major highway frontage. The following matrix summarizes the results of the evaluation.

KINGSLAND TOWN CENTER - ALTERNATIVE SITES PRELIMINARY MATRIX

Alternative No.	Existing Access to Site	Onsite Sewer	Onsite Water	NWI Wetland Acreage <50% of Site	100-Year Floodplain Occurs On-site	Number of Criteria Met
1	YES	NO	NO	NO (64%)	NO	4
2	YES	NO	NO	NO (80%)	NO	4
3	YES	YES	YES	YES (28%)	NO	5
8	NO	NO	NO	YES (27%)	YES (26%)	1
11	YES	NO	NO	YES (31%)	YES (55%)	2

Consideration of alternate site locations yielded no project sites in the vicinity that provide all of the above amenities and/or can be acquired and provide them at lesser adverse environmental impact or comparable cost. The proposed project site was expressly considered for this project as it is the only site within the general vicinity capable of fulfilling the project purpose. Therefore, no existing alternatives are practicable in terms of cost, existing technology, and logistics in light of overall project purpose.

Avoidance and Minimization of Jurisdictional Impacts

Through consultation with ERS, Kenneth Park Architects, and P&A Engineering, the applicant has avoided and minimized jurisdictional impacts to the maximum extent practicable to accomplish the project goals. Five separate site plans (1, 1A, 2, 2A, and 3) other than the preferred plan submitted for approval and included as Exhibit 4 (revised) were considered for the purposes of satisfying the project objectives and are included as Attachment A. Option 1A was the site plan submitted with the permit application in June 2008 that is included as the original Exhibit 4 (dated 06-16-08). Included also in Attachment A is a summary table that defines the impact and mitigation components associated with each master plan option. The following provides a brief synopsis of the avoidance and minimization process that was conducted during planning sessions:

Conceptual Site Plan Option 1

This option provided very minimal avoidance and minimization, preserving only 7.13 acres± fragmented portions of the onsite aquatic resources in order to maximize town center, outparcel, and residential development. A small area of wetland enhancement in the northeast quadrant of the site was included where disturbance by silvicultural operations is most evident. The large amount of impacts and the fragmented character of the preserved wetlands proposed by this plan proved a non-viable alternative. Even the aquatic resources that were left in their natural state would have a low probability of survival due to lack of hydrologic support.

Conceptual Site Plan Option 1A

This site plan was submitted with the original permit application on June 23, 2008 and a slight variation of this option was presented at the pre-application meeting held at the U.S. Army Corps of Engineers (COE) office in April 2008. In its final form, Conceptual Site Plan Option 1A increased preservation only slightly to ±9.41 acres; however, the wetlands to remain on-site were concentrated as contiguous areas intended to maintain existing systems rather than fragments. The proposed plan would preserve the linear wetland system in the northwest quadrant. In addition, a large portion of the flowing system in the southeast quadrant, with accompanying upland buffer, was included in the preservation plan. The remaining wetlands were proposed to be impacted for development of the Town Center, outparcels, and residential development.

As explained in the original permit application supporting documentation, the developer has coordinated with the city to provide stormwater treatment of ±240 acres of offsite contributing areas in addition to on-site runoff using Unified Stormwater Sizing Criteria provisions under the guidance of the Georgia Stormwater Management Manual. Since the city has no treatment provisions in its ordinances, the project will be the first in the city as well as Camden County that includes design specifically addressing stormwater quality. The stormwater quality component of the plan proposed to excavate the linear portion of Wetland D in the northeast quadrant to create the ponds that would provide attenuation and treatment of the offsite drainage. Onsite stormwater management and attenuation was proposed in three new ponds, two outside of and southwest of the site and one in the southwest portion of the existing site. Additionally, the expansion of an existing borrow pit southeast of the site would capture runoff from that portion of the site.

Conceptual Site Plan Options 2, 2A, and 3

After consulting with ERS to determine the feasibility of further avoidance and minimization, Conceptual Site Plan Options 2, 2A, and 3 were developed as alternatives with drastic reductions of impacts to aquatic resources. The numbering sequence is not reflective of decreasing impacts, but is rather just a random labeling of alternatives that were presented to ERS. Although Options 2 and 2A have very similar layouts, Option 2A incorporates a wetland enhancement component along the southern and western fringes of the stormwater treatment facility. Option 2A also has a north-south road bisecting the site, whereas this feature has been removed to enhance walk-ability in Option 2. The slight decrease in preservation for Option 2A is due to the shift in the loop road to provide better accessibility to the central portion of the proposed town center. The small area of preservation in Wetland I reflected in Option 2A is not viable as the wetland would not be sustained due to its insufficient size and lack of hydrologic input. Rerouting of the natural stream within Wetland A would also be proposed under this option.

Option 3 presents a similar, but incomplete site plan when compared to Options 2 and 2A that decreases strict preservation and increases wetland enhancement in the northeast quadrant of the site. The wetland impacts, other than those that are the result of road crossings, are concentrated in the center of the site and include rerouting of the natural stream that flows within Wetland A in the southeast quadrant of the site and increased impacts to Wetlands A, D and E. As with Option 2A, the preservation of a portion of Wetland I is not viable given its location amidst impervious pavement and development.

Originally proposed residential development in the western portion of the site was abandoned in favor of commercial outparcels after consideration of the housing market in Camden County.

Kingsland Town Center Final Master Plan

After a thorough review of the site plan alternatives by all project team members, a meeting was scheduled to agree upon a master plan that balances the environmental, economical, engineering, and marketing considerations of the Town Center. The final site plan reflected in revised Exhibit 4 is the result of those considerations.

Since the Town Center is intended to create an inviting walk-able atmosphere, it is important to centralize the majority of smaller shops to minimize the need to drive between stores. ERS worked with the architects and engineers to meet this goal while preserving the integrity of the higher quality wetland systems on the site. In particular, shifting of the big box retailers and associated parking allowed for the majority of Wetlands A and D and the intermittent stream that flows within them to be preserved with a 25-foot upland buffer. Hydrologic connectivity and appropriate hydro-periods will be maintained through appropriately-sized culverts where road crossings are necessary. Town Center fill for commercial development and associated parking are limited to those portions of Wetlands A and D that are of lower quality and that are not riparian to native streams. Impacts to the eastern extension of Wetland A will be limited to road crossings and ditch improvements to the eastern extent of the wetland along I-95 that is already ditched to provide drainage to the south.

The applicant intends to remove all of the outermost trees from Wetland I and excavate a shallow moat with fountains to create an integral and aesthetically pleasing feature central to the town square. The trees within the center "island" of the wetland will be thinned to increase visibility. The wetland is isolated from waters of the U.S. with the exception of sheet flow connection during significant rainfall events.

In final design of the master site plan, minimum parking requirements, road widths, and site grading were more accurately assessed and adjusted to accommodate the development. Further evaluation was also done to appropriately size the stormwater pond in the northeast corner of the site to adequately treat offsite highway and commercial stormwater runoff prior to discharge along the eastern boundary. This wetland area is an ideal location to provide a stormwater retention pond and is currently devoid of canopy trees due to timbering.

The plan includes filling of the upland cut ditch through which highway and commercial stormwater runoff flows into Wetland D and rerouting of the water into the proposed treatment facility. Wetland enhancement is proposed in the form of a littoral fringe that will serve to aid in pollutant uptake and assimilation.

Littoral areas are divided into two zones. Each zone is determined by measuring a specific measurement of elevation change from the Normal Water Line (NWL). Zone 1 is landward of NWL and Zone 2 is waterward of NWL.

Zone 1 species will include a mixture of softrush (*Juncus effusus*), blue flag iris (*Iris virginica shrevei*), and sand cordgrass (*Spartina bakeri*). Zone 2 includes vegetation such as golden canna (*Canna flaccida*), arrowhead (*Sagittaria lancifolia*), and pickerelweed (*Pontedericea cordata*). The relative proportions of each species will be based on availability.

Conservation The applicant understands the role and importance of conservation in today's landscape and has sought to preserve the highest quality wetland systems on the project site. The natural flow-ways on the site occur in the northwest, northeast, and southeast quadrants. See the section below entitled "Wetlands" for a more detailed explanation on proposed conservation. In order to provide retention for untreated highway and urban runoff north of the site and for the proposed Town Center itself, the decision was made to convert the ditched wetlands in the northeast quadrant into a part of the stormwater management system. Due to the high land value and best use of the northeast quadrant as a commercial/retail development, it is not practical to locate these stormwater facilities in uplands.

Economics According to Darren Harper of the Economic Development Division of Camden County, the proposed Town Center will serve to provide more balance to the tax base that currently comprises 75% residential and approximately 24% commercial sources. Clustered residential/commercial/retail development will also encourage consumers from adjacent areas such as Brunswick, Woodbine, and Kings Bay maintain spending in Camden County, rather than Chatham County or out-of-state Duval County, Florida. It will also serve to reduce fuel consumption due to shortened trips.

Aesthetics Creative design and landscaping will be incorporated into the Kingsland Town Center to provide an inviting atmosphere. Ongoing efforts to incorporate artistic and cultural components will create an open-air space conducive to providing a calm and restorative atmosphere amid society's typically hurried lifestyle.

General Environmental Concerns Historically used for timber production and hydrologically altered through ditching and flow rerouting to accommodate the I-95, the onsite sewer line easement, and May Creek Drive, the project site does not offer unique or highly valued ecological resources. Prior to the major hydrologic alteration, water flowed from east of I-95 into Wetland A, as did water flowing through Wetland E in the northwest quadrant of the project site. These flow-ways merged into May Branch within Wetland A in the southeast quadrant of the site. With much of this water shunted into roadside ditches and away from May Branch with the construction of these bisecting roads, the loss of hydrology has affected the adjacent wetlands over the past several decades, minimizing functions that may have been more significant prior to the alterations.

Prior to the interagency meeting, a review of endangered, threatened, rare, or unusual faunal species listed in Georgia by Georgia Department of Natural Resources (GDNR) Wildlife Resources Division and a review of known occurrences of threatened and endangered species in Camden County by USFWS was

conducted (Attachment E). Prior to and subsequent to the interagency meeting, cursory site reconnaissance surveys were conducted to determine if listed species or their preferred habitat occur on the site. None of the species listed for Camden County were observed during these efforts. Although wood stork (*Mycteria americana*) foraging habitat occurs in the onsite wetlands, no individuals were observed. No gopher tortoise habitat occurs on the project site.

Wetlands The higher quality contiguous wetlands on the site will not be impacted by development, with the exception of necessary road crossings. Historic flow patterns between Wetlands E and A will be re-established to enhance water quality and natural attenuation. Although no clearly defined channel occurs in the wetlands that occur in the northwest quadrant, water historically meandered via sheet flow toward the southeast through this narrow system into the May Branch that originates in the southeast quadrant. The final construction design of the east-west sewer easement and north-south May Creek Drive altered the hydrology by disrupting this natural watercourse. The placement of a culvert now diverts sheet flow from the northwest quadrant south under the sewer easement, into a ditch south of the road, and then west into the north-south boundary ditch along the western site boundary. As part of this project, the natural watercourse will be restored through a culvert that connects the wetlands in the northwest quadrant to May Branch in the southeast quadrant, thereby promoting improved stormwater treatment within the stream's sinuous natural watercourse.

The majority of "isolated" wetlands that occur on the project site have been altered by silviculture, ditching, and adjacent urban land uses. There are no wetlands that are unique to the region or provide critical habitat for threatened or endangered species. Because the site is a prime location for a Town Center development and there is a critical need for the proposed services, wetland impacts are unavoidable.

Cultural Values Providing a central location for residents, tourists, and transient travelers to gather and enjoy a diverse array of shopping and dining experiences, the Kingsland Town Center will bring together people from all cultures. The convenient location of this "one-stop" life-style center for a county that is experiencing tremendous growth will serve to improve the quality of life for those that call Camden County home and for those traveling through or visiting the area. The public realm of the proposed Town Center will serve to bring together different segments of the community to accommodate a variety of uses of the public spaces. Additionally, given the high cost of traveling due to soaring gasoline prices, the opportunity for many to travel over 20 miles to enjoy this type of shopping experience is limited.

Floodplain Hazards and Values According to the National Flood Insurance Program Flood Insurance Rate Maps (FIRM), revised by the Federal Emergency Management Agency (FEMA) on July 3, 1995, the entire site is located outside of the 100-year flood plain as presented in Attachment D.

Food and Fiber Production The production of food and fiber is not consistent with the purpose of planned life-style centers such as that proposed for the Kingsland Town Center. The adverse impact that the Town Center will have to food and fiber manufacturing is limited to the discontinuance of timber production on the site.

Navigation The nearest navigable waters to the project site is the St. Mary's River and there will be no adverse effects to navigable waters that exist outside of the project area.

Shore Erosion and Accretion The proposed project will not have any effect on shorelines of significant features such as lakes or coastal marsh.

Recreation Planned as a multi-use open air development with incorporated green space, the proposed project affords opportunities for both passive and active recreation within the main Town Center and residential areas.

Water Supply and Conservation Detailed construction plans have not been developed; however, water conservation strategies will be promoted to concessionaires that establish businesses within the Kingsland Town Center. At a minimum, the applicant has committed to using pervious pavement in pedestrian walkways, and strategically placed grassed swales and catchment areas to provide stormwater treatment of

runoff from impervious surfaces. Landscaping with drought-tolerant native plants will be incorporated into design of portions of the Town Center to decrease irrigation needs. Such water conservation strategies may also include high efficiency plumbing fixtures and faucets and graywater use.

Water Quality Improvement

As is the case in developing interchange areas, many of the developed parcels, including improvements to Interstate 95 and Highway 40, have been completed without provisions for stormwater attenuation or treatment of the runoff. The contributing offsite drainage basin consists of approximately 240 acres of which approximately 141 acres are currently developed. The remaining 99 acres are essentially undeveloped. With an onsite project area of approximately 297 acres, the total project area equates to approximately 537 acres.

The stormwater management plan for the project will be implemented under the current standards provided by the City of Kingsland. The city requires stormwater discharge attenuation as well as a thorough review of upstream and downstream impacts including provisions to protect onsite and offsite areas from the negative affects of erosion under the State of Georgia rules regarding erosion and sediment control. The city also requires all design and construction to be completed using standard, acceptable engineering practice in areas not specifically defined in the existing ordinance. However, the city has no current requirement for stormwater quality.

Regarding water quality issues, the developer has coordinated with the city to provide stormwater treatment on the project including treatment of offsite contributing areas using Unified Stormwater Sizing Criteria provisions under the guidance of the Georgia Stormwater Management Manual. The project will also be designed to incorporate stormwater management practices outlined in the Georgia Department of Natural Resources (GDNR) Green Growth Guidelines, particularly utilizing stormwater ponds, bioretention, and stormwater wetlands. Green roofs are currently being considered for the larger big box retailers.

In that the city has no treatment provisions in the ordinance, the project will be the first in the city as well as Camden County that includes design specifically addressing stormwater quality.

For purposes of design, the assumption will be made that the upstream contributing areas do not have any effective form of stormwater quality treatment. A number of developments within the basin have attenuation in place. Therefore, existing detention facilities will be analyzed and contributing hydrographs will be adjusted accordingly. The analysis will also include a hierarchy of importance as follows:

- A. Attenuation and treatment of the project area.
- B. Treatment of offsite contributing area.
- C. Attenuation of offsite contributing area.

The hierarchy provides an avenue to provide the best level of design given the area and location of the proposed facilities following the current city standards. Secondly, the treatment of previously untreated areas will follow an analysis of undetained offsite areas.

The stormwater management system will be designed and constructed with a series of detention areas, swales, pipes, inlets, stormwater outfall structures and other necessary stormwater control devices to meet or exceed the requirements of the city. As depicted on the attached conceptual plan, a series of stormwater facilities will be constructed to provide treatment of the stormwater runoff as well as attenuation on site. Additionally, the adjacent owner has agreed to provide additional stormwater facilities as necessary to complete the project. The preliminary size and locations of the offsite facilities are labeled as Pond, 4, 8 and 11 on the attached conceptual plan.

The proposed water quality improvement is of particular importance given the recent Environmental Protection Agency (EPA) 2008 Total Maximum Daily Load (TMDL) 305(b)/303(d) designation of the 15-mile segment of the St. Marys River from upstream of Cabbage Bend to Catfish Creek as a stream not supporting its designated use for fishing. The criterion violation in this reach of the St. Marys River is

dissolved oxygen, and the potential cause listed as urban runoff. May Branch, a stream originating on the Kingsland Town Center project site, is a first order stream that flows approximately 1.7 miles to its confluence with Catfish Creek.

Currently, untreated runoff from the SR 40, adjacent railway, and commercial development flows onto the project site and into May Branch, carrying pollutants such as petroleum hydrocarbons, oil and grease, and polycyclic aromatic hydrocarbons (PAHs), which are the major semivolatile organic compounds (SVOCs) that contribute to increased chemical oxygen demand (COD) detected in highway runoff and urban stormwater.

A number of studies document the detrimental effects of urban runoff and the ecological benefit of utilizing wetlands to improve stormwater quality. One such study involved the pretreatment of stormwater runoff from buildings, roads, and parking lots near the Vehicle Assembly Building (VAB) at the National Aeronautics and Space Administration (NASA) Kennedy Space Center (Segal, Knight, Minderman, and Durham, 2004). Pretreatment attenuation was supplemented by final polishing in previously impacted natural wetlands. Much like the wetlands in the northeast corner of the project site, surrounding land use alterations had changed the hydrology and ecology of the wetland community. For this project, wetland enhancement through increased water levels and supplemental hydrophyte planting resulted in stormwater discharge concentrations that were reduced from those of stormwater inputs for the following parameters: biochemical oxygen demand (BOD), total suspended solids (TSS), total kjeldahl nitrogen (TKN), nitrates (NO₃), total phosphorus (TP), and total nitrogen (TN). The project was shown to benefit the receiving waters of the Banana River, an Outstanding Florida Waterway (OFW).

In a summary of the City of Griffin, Georgia Pollution Control Program completed by Paragon Consulting Group for the EPA and State of Georgia, nonpoint source contamination from urban runoff was identified as potentially leading to severe impairment in streams draining commercial and industrial areas. The objective of the program was to control and manage stormwater quality and quantity as it exits areas that meet these land use types. The pollutants of concern included the following: oil and grease, total petroleum hydrocarbons (TPH), fecal coliform, TSS, total dissolved solids (TDS), turbidity, TP, pH, specific conductivity, temperature, nitrate/nitrite nitrogen, TKN, COD, lead, zinc, and copper. Through use of constructed and natural wetlands, oil and grease, TPH, lead and copper were dropped from the testing parameters were removed from monitoring because concentrations had already fallen below the minimum detectable limit (MDL). The control and treatment of stormwater runoff at the upper limits of the basin did reduce the potential for urban pollutants to permeate downstream and adversely impact Shoal Creek and Wildcat Creek. Since Wildcat Creek is apart of sections 303(d) and 305(b), it is important to control and treat stormwater runoff upstream of Wildcat Creek (Paragon Consulting Group, 2003).

The Federal Highway Administration (FHWA) identified the adverse effects of contaminants from untreated highway runoff, including heavy metals, aromatic hydrocarbons, oil and grease, and suspended solids (U.S. Department of Transportation, 1999) in an article entitled *Is Highway Runoff a Serious Problem?* The article specifically addressed the toxicity of heavy metals in highway runoff and their adverse effects on aquatic organisms and their ecosystems. The article further described how structural Best Management Practices (BMPs), including detention and retention ponds for settling and retaining suspended solids, and wetland and shallow marsh systems for nutrient uptake to enhance contaminant removal.

A plethora of documentation exists that supports the concept that pollutants from highway runoff are detrimental to aquatic ecosystems and the wildlife that inhabit them, and that stormwater retention, coupled with natural and constructed wetland system significantly reduce pollutant loading of those constituents to downstream receiving waters. For this reason, we believe that replacing the degraded wetlands in the northeastern quadrant of the site with a stormwater management system with wetland enhancement components will provide long-term ecological improvement for the important receiving waters of the St. Marys River.

Energy Needs Energy conservation strategies will be an integral part of the Kingsland Town Center planning, not only to reduce operational costs, but to minimize undue burden on existing generating facilities. No energy generating facilities are proposed for the Kingsland Town Center.

Safety Reduced fragmentation of goods and services has been shown to reduce automobile accidents and degradation of roads.

Needs and Welfare of the People As previously stated, the much needed Kingsland Town Center will provide conveniently located commercial/retail services and a central gathering place that promotes community.

Considerations of Private Ownership Residents of the City of Kingsland have expressed a need for conveniently located goods and services and are expected to be in support of the project in agreement with local government. Please refer to Attachment G for addresses and mailing labels for all adjoining property owners.

Jurisdictional Impacts Summary The jurisdictional impacts have been greatly reduced since the original application submittal in June 2008 as a result of an avoidance and minimization analysis that is detailed in the next section. The construction of the Town Center and stormwater treatment projects will necessitate the permanent impact of 15.68 acres of jurisdictional wetlands.

The jurisdictional determination was completed by CDA Associates, Inc. with Anthony Jernigan of COE in September 2008.

The Wetland and Open Waters Mitigation Worksheets have been revised and are included as Attachment B to calculate the total number of credits needed to offset the proposed impact. According to the calculations, a total of 138 credits are required. Credits for the onsite wetland preservation, wetland enhancement, and upland buffer have not been calculated and were not considered in the calculation of 138 credits required to offset project impacts.

Mitigation 138 mitigation credits would be purchased through Marshlands Mitigation Bank.

**KINGSLAND TOWN CENTER
AVOIDANCE AND MINIMIZATION PROGRESSION**

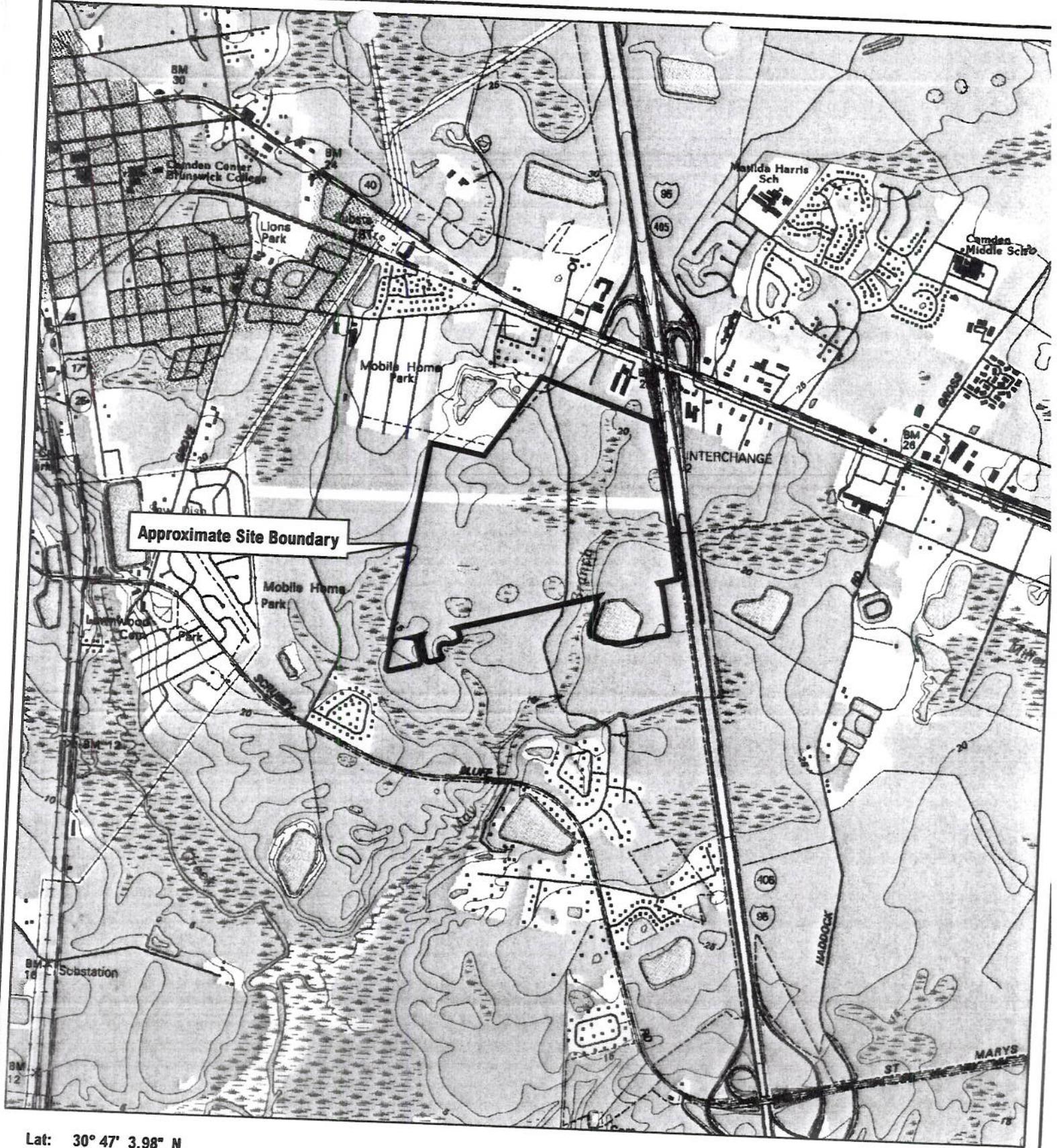
IMPACT/MITIGATION	CONCEPTUAL SITE PLAN OPTIONS (ACRES)					
	1	1A ^a	2	2A	3	Final ^b
Wetland Preservation	3.99	9.41	25.47	25.39	24.43	25.79
Wetland Enhancement	3.14	0.00	-	0.98	1.87	0.63
Non-Jurisdictional Wetland Preservation	1.97	-	-	-	-	-
Non-Jurisdictional Wetlands (Future Development)	-	-	6.32	6.54	6.54	-
Non-Jurisdictional Wetland Impacts	4.57	6.63	0.21	0	0	6.63
Stormwater Treatment Facility (Dredge Impacts)	0.00	4.78	6.95	5.79	4.93	3.32
Roadway Impacts	3.52	^c	2.47	3.27	2.50	3.54
Town Center Wetland Fill Impacts	25.23	28.12	7.28	6.76	8.45	8.83
Outparcel Fill Impacts	6.31	^c	-	-	-	-
Total Jurisdictional Impacts	35.06	32.90	16.70	15.82	15.88	15.68
Upland Cut Ditch Impacts	0.34	0.34	0.34	0.34	0.34	0.34
Total % of Jurisdictional Wetlands Impacted	83	78	39	37	38	37
Total % of Jurisdictional Wetlands Preserved	17	22	60	62	62	63

^a Submitted with original permit application

^b Preferred Site Plan

^c Included in *Town Center Wetland Fill Impacts*

EXISTING CONDITIONS SUMMARY	ACRES
Total Site Acres	297.18
Total Non-Jurisdictional Wetlands On-site	6.63
Percentage of Non-Jurisdictional Wetlands On-site	13.55
Total Jurisdictional Wetlands On-site	42.31
Percentage of Jurisdictional Wetlands On-site	14.24



Lat: 30° 47' 3.98" N
 Long: 81° 39' 53.90" W



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 1597 The Greens Way,
 Suite 200
 Jacksonville Beach, FL 32250

I-95 Commercial Kingsland Location Map

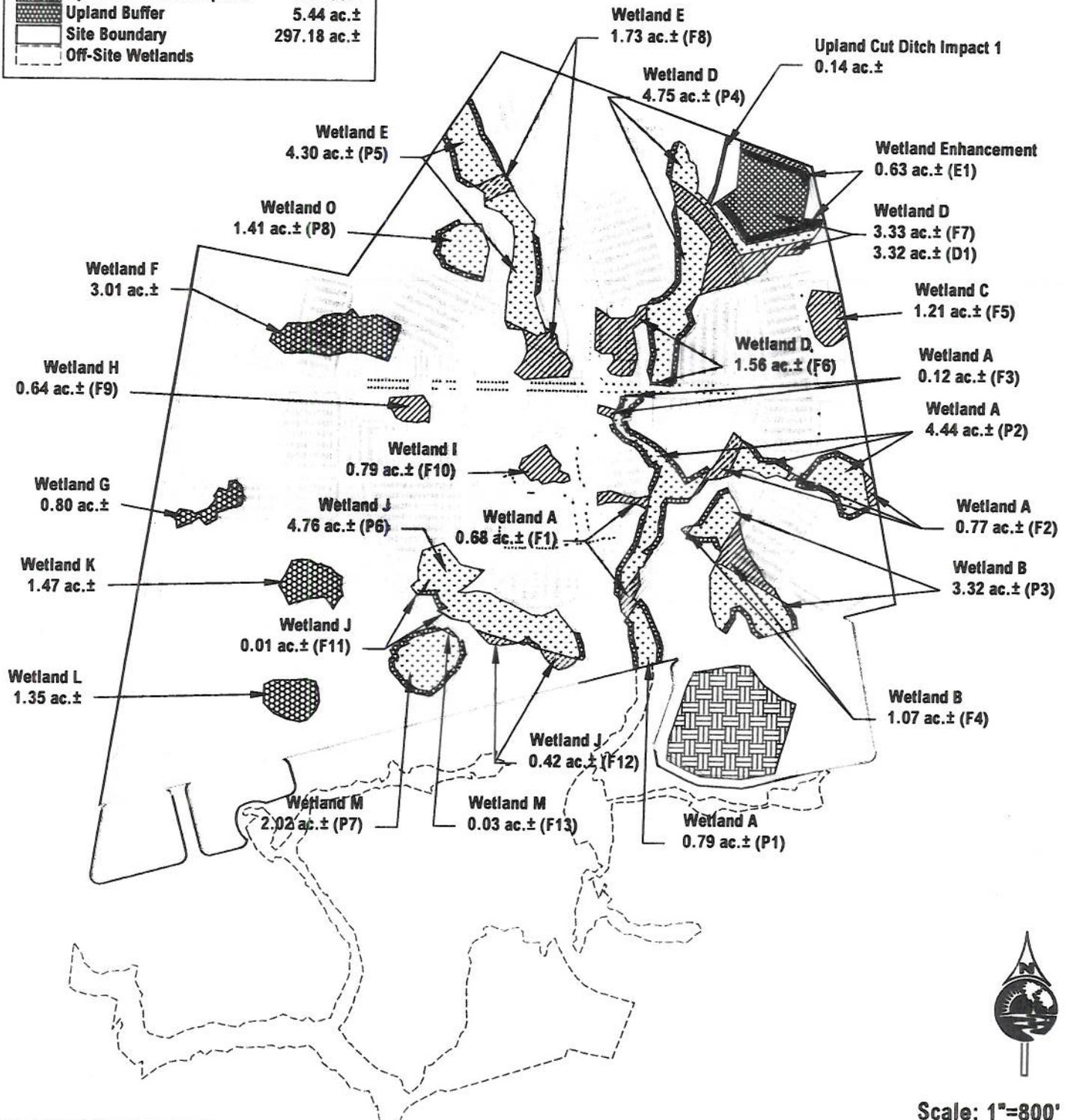
Source: USGS 7.5' Kingsland, GA Topographic Quadrangle

By: KC

Project No.:	08029
Exhibit No.:	1
Date:	6-16-08
Rev. Date:	6-19-08



Legend	
	Wetland Preservation 25.79 ac.±
	Wetland Enhancement 0.63 ac.±
	Non-Jurisdictional Wetlands 6.63 ac.±
	Wetland Fill Impacts 12.36 ac.±
	Wetland Dredge Impacts 3.32 ac.±
	Existing Borrow Pit 7.70 ac.±
	Upland Cut Ditch Impacts 0.14 ac.±
	Upland Buffer 5.44 ac.±
	Site Boundary 297.18 ac.±
	Off-Site Wetlands



Scale: 1"=800'

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 1697 The Greens Way
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**Kingsland Town Center
 Wetland Impact/Mitigation Map**

Source: May Creek Site Plan 10-9-08.dwg File: 08029_impmit_10-21-08

Project No.: 08029
 Date: 6-16-08 Rev.: 10-21-08
 By: KC Exhibit No.: 4