

**DRAFT ENVIRONMENTAL ASSESSMENT
SWAYBRANCH DRIVE DAM REHABILITATION,
ROSWELL, FULTON COUNTY, GEORGIA**

Prepared by

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August 2011

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1. INTRODUCTION:

1.1 General: This Draft Environmental Assessment (EA) was prepared as a result of a project proposed by the U.S. Army Corps of Engineers (Corps) in partnership with Roswell, Fulton County, Georgia to rehabilitate a degraded pond and detention basin and replace it with a single extended detention wetland basin. The existing dams are overgrown with trees and woody vegetation and severe erosion has resulted in a compromised dam and spillway, reducing the capacity of the facility to store water as originally intended. The project would be designed with a new dam and spillway to meet current design specifications. The project would be designed and constructed in cooperation with the Corps, the City of Roswell, and their contractors. The purpose of this EA is to evaluate the impacts to the natural and human environments associated with the proposed project compared to other reasonable alternatives, including the “No Action” alternative.

1.2 Location: The project is located in Fulton County, Georgia in the City of Roswell between Swaybranch Drive and Market Place. The property is located on a perennial unnamed tributary to Big Creek which flows into the Chattahoochee River. The area is part of the Appalachian-Chattahoochee-Flint River Basin which drains part of north and central Georgia and central Alabama, finally flowing to the Gulf of Mexico via the Appalachian River in Florida.

Roswell is located in northern Fulton County, Georgia, which is located within the metropolitan area of Atlanta, Georgia. The site location is shown in Figures 1 and 2.

1.3 Proposed Action: The Proposed Action was chosen after considering four action alternatives and the “no action” alternative. The basis of selection of the proposed plan was cost practicability of implementation, fulfillment of project purpose and environmental impacts. The Proposed Action consists of construction of an extended detention wetland basin to be completed at the project site which will be further described in the body of this EA.

1.4 Purpose and Need for the Proposed Action: The purpose of the Proposed Action is to restore the integrity of a badly eroded spillway and pond dam and the stormwater detention capacity of the pond behind the dam. Currently, stormwater flows result in continued erosion of the facility negatively impacting peak flows and water quality downstream. Creeks in the Atlanta metropolitan area have been impacted by increased stormwater runoff due to increasing urbanization and impervious surfaces. Without repair of degraded facilities, such as this one combined with other actions to ameliorate stormwater peak flows, there would be further increases in downstream flows, erosive energy and reduced water quality and habitat quality for aquatic species.

1.5 Scope: This EA has been developed in accordance with the National Environmental Policy Act (NEPA) and the 40 Code of Federal Regulations (CFR) part 1500 through part 1508 (President’s Council on Environmental Quality (CEQ), 1978) and 33 CFR 230, ER 200-2-2, 1998. Its purpose is to inform decision-makers and the public of the likely environmental consequences of the proposed action and alternatives. This EA identifies, documents, and

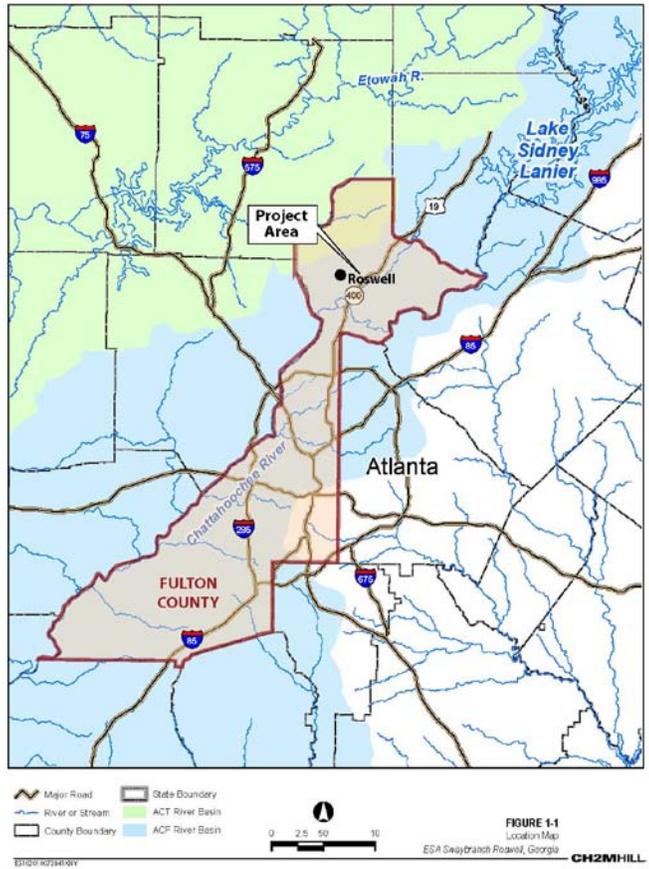


Figure 1. Location of Project in Fulton County, Georgia

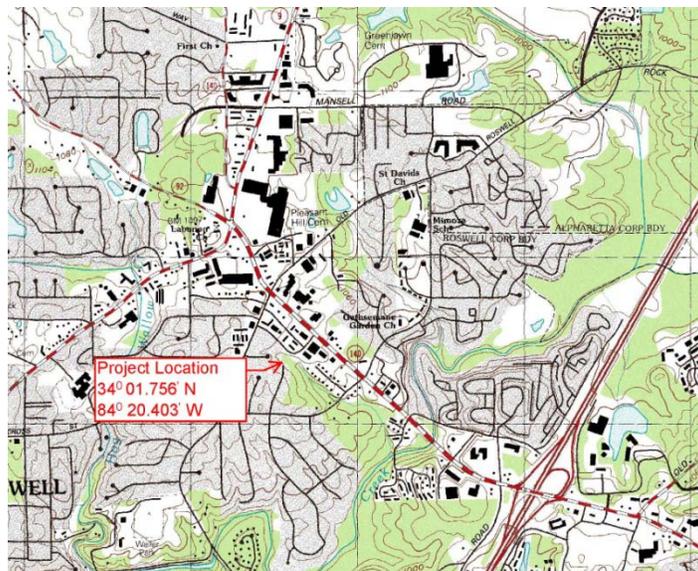


Figure 2. Topographic Map of Project Area

evaluates the effects of rehabilitation and construction of a detention pond on an unnamed stream in Roswell, Fulton County, Georgia. It has been developed to address the potential impacts of the proposed action on environmental and socioeconomic conditions in the project area. These impacts include those resulting from project construction and future impacts that would result from its operation and maintenance. Generally, the area of potential impact is limited to the property on which the detention basin would be built and areas immediately adjacent to it. For other resources potentially impacted, for example air and water quality, noise, traffic and socioeconomic conditions, impacts are evaluated beyond the immediate vicinity of the project site, but in all cases are limited to the local community and/or watershed.

NEPA requires Federal agencies to consider environmental consequences in their decision-making process. The CEQ issued regulations on implementing NEPA that include provisions for both the content and the procedural aspects of the required environmental analysis. The Corps is the lead Federal agency for this project and the regulations in 33 CFR 230 guide the Corps implementation of NEPA. The EA addresses the direct, indirect, and cumulative impacts of the construction and maintenance of the project on the aquatic environment and other environmental and socioeconomic resources in the project area.

Per CEQ guidance, the EA focuses on those resource areas where there is a potential for impacts and does not address any resource areas where there is no potential for impacts. Preliminary evaluations indicated that there would be potential for impacts to the following resource areas:

- Water Resources, including surface water quality, stormwater, groundwater, floodplains, wetlands and public water supply
- Biological Resources, including fish, threatened and endangered species, other aquatic organisms, and other species and habitats dependent on the aquatic environment in the area.
- Land use
- Geology and Soils
- Historic and Archaeological Resources
- Socio-economic conditions
- Traffic
- Noise
- Air Quality
- Aesthetics
- Hazardous and Toxic Substances
- Safety
- Protection of Children

Initial evaluation indicated that there would be no potential for impacts to several resource areas, due to the nature of the alternative actions. These resource areas, which were not included in this EA, are discussed briefly below:

- Environmental Justice: The primary objective of an environmental justice analysis is to ensure that vulnerable populations do not bear a disproportionately high and adverse share of human health or environmental effects from proposed Federal actions. To address

environmental justice concerns, President Clinton issued Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, on February 11, 1994 requiring each Federal agency to “make the achievement of environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health and environmental effects on minority and low-income populations.” The EO and accompanying Presidential Memorandum direct Federal agencies to identify and analyze the potential socioeconomic impacts of proposed actions in accordance with health and environmental laws and to identify alternatives that might mitigate these impacts. Neither the proposed action nor any of the alternatives considered would displace any portion of the people living in the area nor create any environmental hardships for any portion of the population. Therefore, the action would not disproportionately impact minority or low income populations and Environmental Justice is not further evaluated in the EA.

- **Police, Security, and Fire Services:** The impacts of the project would be confined to the general area of the stream. There would be no change in the need for police, fire, or emergency services due to the implementation of the proposed project and there would be no disruption of these services. Accordingly, police, fire, and emergency services are not further evaluated in the EA.
- **Wastewater System, Recycling Facilities, and Septic Systems:** The impacts would be limited to the immediate stream area; therefore, the proposed project would have no potential to impact these services in the study area. Therefore, these services are not further analyzed in this EA.
- **Prime and Unique Farmland:** The watershed is highly urbanized and dominated by residential and commercial development. No prime farmlands are located within the project area; therefore no coordination with the Natural Resources Conservation Service (NRCS) regarding farmland is required.
- **Navigation:** The waterways in the area of Roswell are well above the point where recreational navigation normally occurs. Therefore, navigation is not further analyzed in this EA.
- **Climate Change:** The nature of the project is to construct a stormwater detention area. As such, there would be no permanent sources of greenhouse gas emissions. Insignificant emissions of greenhouse gases during construction would have no potential to affect climate change. In accordance with the guidance provided in the Corps’ Engineering Circular (EC) 1165-2-211 (USACE 2009), the Corps in planning, engineering, and designing projects, must consider the following: (1) how sensitive and adaptable natural and managed ecosystems and human systems are to climate change and other related global changes, and (2) consider alternatives that are assessed for possible future rates of sea-level change which can be caused by climate change. According to Appendix C of the EC “Flowchart to Account for Changes in Mean Sea Level”, the first step in this determination is to decide whether the project would occur in a coastal/tidal/estuarine zone or in an area bordering such zones. In

accordance with the flowchart, the Swaybranch Drive detention basin is not located in such a zone and no further consideration to sea level change is necessary.

- Recreation: The area has no public recreation facilities and the public does not use the area for recreation. Therefore, the impacts to recreation are not further evaluated.

1.6 Public Involvement: The National Environmental Policy Act of 1969, 42 U.S. Code (USC) 4321 et seq. (NEPA) requires that the public be involved in the decision making process on Federal actions. Consideration of the views and information of all interested parties promotes open communication and enables better decision-making. All agencies, organizations, and members of the public having a potential interest in the proposed action are urged to participate in the decision-making process.

Coordination with the general public is being accomplished by making the Draft EA and the Draft Finding of No Significant Impact (FONSI) available electronically and by paper copy. The documents are being made available on the Corps, Mobile District website and via electronic public notices to agencies, individuals and organizations who have requested such notification. The public notice number is FP11-SD-01-16, with a stated 30-day comment period that will end September 7, 2011. Paper copies are available for viewing for those individuals without internet access.

At the end of the 30 day period, the Corps will consider all comments submitted by individuals, agencies, and organizations. This Draft EA will be revised to reflect consideration of comments which will be discussed in Section 9, "Coordination". As appropriate, the Corps may then execute the FONSI and proceed with implementation of the proposed action. If it is determined that implementation of the proposed action would result in significant impacts, the Corps will publish in the Federal Register (FR) a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS), or will not take the action.

In order to be included in the Final EA, all comments must be received by the Corps before close of business September 7, 2011. Comments should be submitted to Mr. Chuck Sumner, U.S. Army Corps of Engineers, Mobile District, ATTN: PD-EI, P.O. Box 2288, Mobile AL 36628, or by e-mail at lewis.c.sumner@usace.army.mil

1.7 Authority: The proposed action is a Federal project in cooperation with a non-Federal partner (City of Roswell) that is using Federal funding through the Corps pursuant to Section 219 of the Water Resources Development Act of 1992 to implement stormwater treatment and capacity infrastructure. In compliance with requirements for potential Federal funding under Section 219, this EA is being prepared to evaluate the environmental and socioeconomic effects, and in compliance with NEPA.

2. ENVIRONMENTAL SETTING WITHOUT THE PROJECT:

General: The project site is located between Market Place and Swaybranch Drive in Roswell which is located in the northern part of Fulton County, Georgia. Roswell has a population of approximately 87,000. Fulton County is part of the metropolitan Atlanta area and has 534 square

miles. According to the U.S. Census Bureau, the population of Fulton County in 2009 was estimated to be 1,033,756. The site is located on an unnamed tributary to Big Creek. The area is within the Piedmont Physiographic Province (University of Georgia Museum of Natural History, 2010).

The Piedmont Province is located south of the more mountainous Blue Ridge, and Ridge and Valley Provinces and north of the flatter upper Coastal Plain. Rivers and creeks are located throughout the province and it forms the headwaters to several major river systems including the Savannah, Chattahoochee, and Alabama-Coosa-Tallapoosa Rivers. Topography is comprised of rolling hills interspersed with isolated mountains. In areas not impacted by the current trend towards urban development, oak-hickory-pine forests dominate. Dominant overstory trees include oaks, hickories, short-leaf pine, and loblolly pine.

Fulton County has a temperate southern climate with distinct changes of seasons. Summers are long and hot, winters are short and cool compared to more northern states but occasional prolonged freezing weather occurs. Despite the relatively mild winter weather, several storms consisting of light snow or wintry precipitation usually occur annually. Rainfall is fairly well distributed throughout the year, although a well-marked dry period occurs in the fall months of September, October and November. By contrast, December through March is generally wet. There is also a maximum of local thunderstorms in July. Average annual precipitation is about 50 inches a year. Occasionally, stalled frontal systems or tropical weather systems produce much higher than normal rainfall over a period of several days.

The project area is approximately 1.8 acres in size in a residential area of Roswell and has a watershed comprising approximately 31.9 acres. The City of Roswell acquired the property to connect the water line between Swaybranch Drive and Market Place; to convert a former driveway to a public street; and to gain access to a small pond (Pond 1) and dam, and a dry pond (Pond 2) and dam (Figure 3). The site is forested with a mix of pine and hardwoods. Pond 1 is approximately 0.39 acre and Pond 2 is 0.06 acre. A concrete spillway exits Pond 1, which has been partially undercut by erosion and portions have collapsed. Pond 2 receives inflow from a culvert from Swaybranch Drive. A concrete standpipe connects the two ponds. Due to deterioration, both structures are exhibiting reduced stormwater detention functionality. A perennial stream begins at the exit point of Pond 1.

Existing conditions of specific resource areas are discussed in the sections that follow.

2.1 Water Quality: The stream is not listed in Georgia's final 2010 305(b)/303(d) List of Impaired Waters. However, Big Creek, where the area drains, is listed for violating its fishing and drinking water use classification. The drain receives a large amount of non-point source urban runoff and is therefore considered to have fairly poor water quality, which likely contains fecal coliform bacteria, and pesticides, fertilizers, and other organic materials originating from landscaped areas.

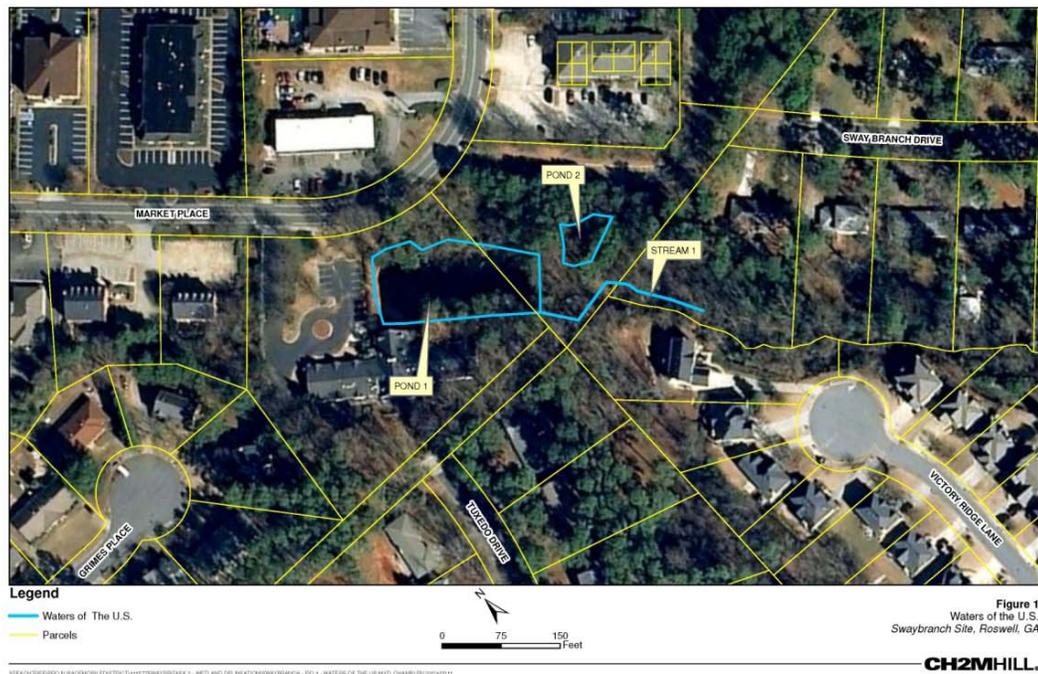


Figure 3. Current On-site Conditions for Swaybranch Drive Dentention Pond

2.2 Stormwater: The area receives large volumes of stormwater from the surrounding watershed. Over the years, the area has been subject to intense urbanization associated with increases in construction of impervious surfaces such as streets, parking areas, and commercial and residential buildings. As a result of the replacement of natural vegetation with paved areas and little or no buffer areas along the creek and tributaries, there has been a significant increase in stormwater peak flows. The increase in impervious surfaces is related to the decrease of natural detention within the basin.

2.3 Groundwater: The project area, and the Piedmont region generally, consists of an area of low groundwater recharge potential and few productive groundwater aquifers. Due to the few numbers of productive groundwater aquifers and the rapid runoff from the local tributaries, surface water has generally little impact on groundwater quantity or quality.

2.4 Floodplains: Floodplains are designated and mapped by the National Flood Insurance Program (NFIP), which is administered by the Federal Emergency Management Agency (FEMA). Those maps are available on the FEMA internet web site (FEMA 2010). The entire project site is located in Zone X, defined as areas outside the one-percent flood risk zone.

2.5 Wetlands and Waters: The topography of the project area, outside the pond itself, consists of rolling hills with well drained soils. In addition, along the riparian area, the topography is moderately steep with well drained soils. In the fringe areas of the existing ponds, there is a secondary growth of native vegetation that could support wetland communities. Topographic

maps (Figure 2) indicate that historically there was a perennial drain running through the property. Currently, the existing detention basin has replaced the natural drain.

Therefore, a wetland delineation was performed by a Corps contractor of the area of proposed work and all access points on February 3, 2011, in accordance with the Corps of Engineers 1987 Wetland Delineation Manual (Corps, 1987). That delineation concluded that no wetlands were found. A stream was identified on the property at the end of a concrete spillway flowing from one of the existing ponds. The stream is the remains of the original stream that existed prior to pond construction. The stream has been previously impacted by the construction of detention ponds as an in-stream feature. It appears that the stream in its original condition was not large enough to support true riffle and pool type habitat or to support permanent populations of fish. In addition, erosion and sedimentation caused by high water flows during flashy conditions is a contributing factor to continuing degradation of that habitat. The stream and both ponds are considered “Waters of the United States”, per Corps Wetland Definition (Figure 3).

2.6 Water Supply: There is no direct use of either of the ponds or the stream for water supply. However, the area drained is part of the larger Chattahoochee River watershed and a number of communities use that waterway for public and industrial water supply. Due to the small size of this watershed, the stream does not account for a significant contribution to the Chattahoochee River.

2.7 Fish and Fishery Resources: It is generally unknown what, if any, fish occur in the existing detention ponds. Due to the small size of the water bodies, and impacts from past development, it is unlikely that fish, other than those highly tolerant to human-induced disturbance, such as small sunfish, would be found in the detention ponds.

2.8 Endangered, Threatened or Protected Species: The U.S. Fish and Wildlife Service (FWS) county database (U.S. Fish and Wildlife Service, 2004) indicates that four Federally threatened or endangered species occur in Fulton County.

Since publication of the data base, the Bald eagle (*Haliaeetus leucocephalus*), has been delisted by FWS. Although not listed, the Bald eagle remains protected under Federal law, including the Bald Eagle Protection Act. Bald eagle habitat includes large bodies of water with nearby old-growth forest with very limited human presence. The project area has none of these habitat features. The three currently listed species are shown in Table 1. The two invertebrate species and the fish species require perennial water flow to provide adequate habitat. Of the three, the Cherokee Darter requires the least flow with adequate habitat, such as streams with at least one meter in width and with rocky or gravelly substrates. Such habitat and adequate flow does not occur on the project site. The mussels require even greater stream flow in larger streams than that required for Cherokee Darter; therefore it is concluded that none of the species are present.

2.9 Wildlife Resources and Habitat: The project area is forested, providing adequate habitat for a variety of urban- and suburban-tolerant animal species. Dominant plant species include tulip poplar (*Liriodendron tulipifera*), loblolly pine (*Pinus taeda*), Oaks (*Quercus spp.*) Japanese honeysuckle (*Lonicera japonica*), greenbriar (*Smilax spp.*), musclewood (*Carpinus caroliniana*), Chinese privet (*Ligustrum sinense*) and American holly (*Ilex opaca*). As recently as a few decades ago, the area provided ample habitat for a variety of large animals such as white-tailed

deer (*Odocoileus virginianus*), and wild turkey (*Meleagris gallopavo*). Currently, due to continuing urbanization, it is likely that only those animals that are more tolerant of small, fragmented acreages and altered habitats would be found on the site. These could include rabbit

Table 1. U.S. Fish and Wildlife Service Listed Species in Fulton County, Georgia
(updated May 2004)

Species	Federal Status	Habitat	Threats
<i>Invertebrates</i>			
Gulf moccasinshell mussel <i>Medionidus pencillatus</i>	Endang-ered	Medium streams/large rivers with slight to moderate current over sand and gravel substrates.	Habitat mod., sedimentation, water quality.
Shiny-rayed pocketbook mussel <i>Hamiota subangulata</i>	Endang-ered	Medium creeks/mainstems of rivers, slow to moderate currents over sandy substrates and associated with rock or clay.	Habitat mod., sedimentation, water quality.
<i>Fishes</i>			
Cherokee darter <i>Etheostoma scotti</i>	Threatened	Shallow water (0.1-0.5 m) in small to medium warm water creeks (1-15 m wide) with predominantly rocky bottoms. Usually found in sections with reduced current, typically runs above and below riffles and at ecotones of riffles and backwaters.	Habitat loss and degradation, poor water quality

(*Sylvilagus* spp.), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*) and gray squirrel (*Sciurus carolinensis*), as well as a variety of non-game birds, waterfowl, mammals, amphibians, and reptiles which are normally found in these types of upland and riparian areas. Introduced mammals, which may also be found in the area, include the Norway rat (*Rattus norvegicus*) and house mouse (*Mus musculus*). Small forested patches such as those in the project site could provide resting places for migratory birds or nesting areas for generalist species such as mourning dove (*Zenaida macroura*), blue jay (*Cyanocitta cristata*), American crow (*Corvus brachyrhynchos*), mockingbird (*Mimus polyglotus*), starling (*Sturnus vulgaris*) and others. Larger trees could support woodpeckers and owls.

2.10 Land Use: Land use in the area is dominated by residential and commercial development, interspersed with small areas of forest and parks. The project site is dominated by the detention ponds previously described. Agriculture is almost non-existent in the area having been replaced by the continuing urbanization associated with the Atlanta metropolitan area. Land use controls on private lands in this area, as well as other parts of Fulton County are imposed by local government and home owner associations.

2.11 Geology and Soils: The rocks of the Piedmont are primarily moderate-to-high-grade metamorphics, such as gneiss, schist, amphibolites, marble and quartzite, and igneous such as granite. The granites are the result of igneous intrusions, such as plutons, into the native rock. Rock exposures or outcrops in the area are surface extents of the more weather resistant metamorphic or igneous rocks. Soils of the Piedmont are primarily clay, which is the result of intense weathering of the metamorphic and igneous rock. These soils are shallow with low moisture-holding capacity and low permeability with rapid runoff after rain events.

Soil borings performed by Corps contractors on February 11, 2011, determined that soils on the site in the first 18 inches were composed of loose silty-sand fill material, soft clays, and silt.

2.12 Historic and Archeological Resources: A search of Georgia's Natural, Archeological, and Historic Resources GIS (GNAHRGIS) was conducted for previously recorded archaeological sites and no previously recorded archaeological sites were identified within the area of potential effect (APE). As a result of a site visit conducted by a Mobile District Archaeologist, the entire APE was found to be extensively disturbed by previous utility construction, an earthen embankment, retention pond, and erosion. The Mobile District has determined that there would be no historic properties affected by the proposed action as per 36 Code of Federal Regulation 800.4(d)(1).

2.13 Socioeconomic Conditions: Key demographic facts for Fulton County and the State of Georgia are derived from the Bureau of the Census (USDOC(b)) and presented in Table 2. The county has a diversified economy including manufacturing, retail sales, transportation, professional services, and government. The county serves as the State Capital, has numerous Federal agency offices and has an international air traffic hub. The local area is typically middle-class suburban and part of the greater metropolitan Atlanta area, and as such, residents tend to commute varying distances and directions to their place of employment.

2.14 Traffic: The important highway transportation artery in the area includes Georgia State Highway 400, providing a link to other interstate highways such as I-285, I-75 and I-85. Within the immediate project area, transportation is composed of local streets designed for residential traffic. Traffic tends to be light at most times in the residential areas and generally heavy to very heavy on the major routes leading to the City of Atlanta.

2.15 Noise: There are no specific studies related to the existing noise conditions in the residential areas near the project site. However, noise levels in typical urban residential areas range from 58 dB to 72 dB (USACE, 1998). The residential areas around the project site are similar to other urban and suburban areas of similar size and density. Therefore, the study cited is considered representative as an approximation of the current noise levels.

2.16 Air Quality: On November 30, 1993, the Environmental Protection Agency (EPA) published its final *General Conformity Rule* to implement Section 176(c) of the Clean Air Act (CAA) for geographic areas designated in CAA nonattainment areas and in those attainment areas subject to maintenance plans required by CAA Section 175(a). The CAA General

Table 2. Selected Demographic Data for Fulton County compared to State of Georgia

Demographic Characteristic estimates for year 2009	Fulton County	Georgia
Population	1,033,756	9,829,211
Population, percent change, April 1, 2000 to July 1, 2009	26.7%	20.1%
Persons under 5 years old, percent, 2009	7.0%	7.6%
Persons under 18 years old, percent, 2009	24.2%	26.3%
Persons 65 years old and over, percent, 2009	7.9%	10.3%
White	50.6%	65.0%
Black	43.1%	30.2%
American Indian and Alaska Native	0.4%	0.4%
Asian	4.4%	3.0%
Native Hawaiian and Other Pacific Islander	0.1%	0.1%
Persons reporting two or more races	1.4%	1.3%
Hispanic or Latino	8.7%	8.3%
White persons, not Hispanic	42.9%	57.5%
Homeownership rate, 2000	52.0%	67.5%
Median household income, 2008	\$62,682	\$50,834
Per capita money income, 1999	\$30,003	\$21,154
Persons below poverty level, percent, 2008	14.9%	14.7%

Conformity Rule applies to Federal actions. National ambient air quality standards exist for seven criteria pollutants: carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide, lead, and particulate matter less than or equal to 2.5 microns in diameter. According to the EPA Greenbook for non-attainment areas (*USEPA 2007*), Fulton County, Georgia, is within the metropolitan area of Atlanta and is designated by the EPA as a “non-attainment” area for ozone and for particulate matter levels. The non-attainment designations are based on results of air sampling and resulting degree to which national ambient air quality standards, as defined by EPA, are not currently being met.

Both ozone and particulate matter are pollutants that originate primarily from internal combustion engines, especially those associated with automobiles and trucks, and secondarily from industrial sources. The residential areas around Swaybranch Drive typically experience light vehicular traffic; however the area’s air quality is affected by cumulative population and accompanying traffic in the metropolitan area.

2.17 Aesthetics: The existing ponds and wooded area at the project site provide a degree of greenspace in the urban environment that most people would consider to have some aesthetic benefit. However, the property is dominated by the ponds that are in a deteriorating condition as previously described. Aesthetics is a subjective determination, and for that reason there is likely diverse range of opinion on the aesthetic value of the property.

2.18 Hazardous and Toxic Materials: A Phase I, Environmental Site Assessment (ESA) has been completed for the project area by CH2M Hill during March, 2011. No hazardous materials

are known to exist currently or in the past at the site. In addition, the ESA concluded there were no Recorded Environmental Conditions or data gaps that would require further investigations

2.19 Public Safety: Although not open for public use, persons trespassing on the property are subject to various hazards. Those hazards include the possibility of falls from the eroded spillway and dam, and accidental drowning in the ponds, especially during and after heavy rains. The degree to which persons enter the property without permission or the number of accidents which may have occurred in the past is unknown.

2.20 Protection of Children: On April 12, 1991, the President issued EO 13045, Protection of Children from Environmental Health Risks and Safety Risks. The EO seeks to protect children from disproportionately incurring environmental health or safety risks that might arise as a result of Corps policies, programs, activities, and standards. Children are potentially at greater risk for accidents such as those described in the section above. The number of children residing in the immediate area is unknown.

3. DESCRIPTION OF PROPOSED ACTION:

The goals of the proposed work are to restore the detention functions of the ponds by solving the problem of the eroding dam and spillway. This would provide improved functionality to the infrastructure and reduce peak storm flows downstream. The proposed plan was selected by the based on cost and practicability of implementation and also the degree to which the detention pond would provide stormwater detention.

The proposed action would consist of cutting, dewatering, and removing the existing dams and constructing a 0.18-acre (8000 square feet) single detention pond. During dry weather periods, this pond's permanent wet pool would be maintained at approximately 3,600 square feet and would likely contain a planted wetland in the bottom of the pond which would provide a water quality benefit. This pond would provide additional reductions in discharge rates to downstream and would also provide some water quality benefit to downstream receiving waters.

The general parameters of this design were as follows:

- Grade the slopes of the dam to 3-feet horizontal to 1-foot vertical to increase slope stability and aid in future maintenance.
- Provide for at least 2-feet of free board on the dam without the use of an emergency spillway during the 100-year 24-hour design storm.
- Maintain or reduce downstream discharge rates for the 1-year, 2-year, 5-year, 10-year, 25-year, 50-year, and 100-year design storms over current discharge rates.

The dam would be approximately 40 feet wide and 10 feet high. The principal outlet of the new detention pond would consist of an 8-inch orifice at the elevation of the constructed wetlands (elevation 1031.00) and a multi-stage weir opening in a concrete box set in the pond. This would allow runoff from the pond to drain under the dam via a single 60-inch reinforced concrete pipe. A trash rack or similar device would be required to ensure that the orifice does not become clogged with debris. This alternative would allow the dam to be reconstructed utilizing slopes

and outlet devices more consistent with current construction practices which would result in a safer dam if constructed properly. The detention pond would be able to reduce the peak discharge rates between 14% and 22% of existing flow rates at Warsaw Drive. Normal water depth would be approximately 3 feet. During 100-year flood events, water depth could rise to approximately elevation 1040, or about 13 feet deep. Approximately 130 linear feet of the existing stream would be filled and rerouted to a new spillway. There would be no specific restrictions on time of year to perform the construction; however, poor weather conditions would likely be a limiting factor. A plan view of the proposed work is shown in Figure 4.

Initial site dewatering is anticipated to be by pumping water out of the pond and directly into the receiving stream at a point downstream of the existing concrete spillway. The current pond volume is relatively small and the pond should easily be pumped down within a day and at a relatively slow rate.

Following initial drawdown, flows to the pond during construction would be captured within the existing pond footprint, utilizing a coffer dam to separate stormwater input to the pond from the active construction area. Bypassing flows across the construction site would be in accordance with the contractor's stormwater management plan. With alternative flow by-pass methods available, the contractor would be provided the opportunity to select one or more of the options described below. The anticipated means of managing flows during construction include 1) bypass pumping, 2) a gravity flow system (either via pipe or a lined bypass channel, or 3) a combination of the above. The method used may change as construction progresses, site conditions change, and additional storage potential becomes available while the embankment is restored.

A wetland and riparian re-vegetation plan would be implemented and native plant species selected depending on elevation zones around the small permanent pool. Species selection would depend on availability at the time of planting; however, in general, planting zones would be categorized according to water depth/hydrology and plants selected accordingly. For example, in Zone 1 (water depth 0.5-1.0 feet deep) emergent species such as woolgrass, American white waterlily, and American lotus would be planted. In Zone 2 (0.0-0.5 feet deep), Green arrow arum and Broadleaf arrowhead would be planted. In Zone 3, in the lower riparian area, cypress and river birch and other species would be planted. In the upper riparian and upland areas, blackgum, green hawthorn and red maple would be planted.

Access would be gained from local streets directly across the property. Due to the small size of the project, staging and access is included in the previously described disturbed area. Any required fill material for construction would be obtained from clean commercial sources in the local area. Any required disposal of excess excavated material would be in approved local landfills.

A generalized management plan for invasive plant species would be initiated at the time of project construction. To the extent practicable, invasive populations would be eliminated from the site using a combination of mechanical and chemical methods. For woody species such as



Figure 4. Plan View of Proposed Detention Pond

Japanese honeysuckle and Chinese privet, which are common in the watershed, as well as others not known to occur that potentially occur, such as tree of heaven (*Ailanthus altissima*), Amur honeysuckle (*Lonicera maackii*), autumn olive (*Eleagnus umbellata*), thorny olive (*Eleagnus pungens*), Chinese wisteria (*Wisteria sinense*), multiflora rose (*Rosa multiflora*), a cut-and-treat application of herbicide would be made. This would involve severing woody stems, immediately followed with a herbicide treatment such as Triclopyr ester (Garlon 4 or Pathfinder II with added tracking dye). Subsequent annual treatments may involve minor cut and treat and foliar spraying. Because cut materials from some invasive plant species are known to take root when making contact with soil, all cut invasive debris would either be chipped on site or removed to a landfill. All pesticide applications would be made by appropriately certified or permitted applicators and in compliance with pesticide labels.

Maintenance would be the responsibility of the local sponsor. Typical maintenance activities would include periodic replacement of some rock and repair of the structures to the design grade and shape after significant storm events. Debris would be removed to prevent accumulations that could divert flows and cause unwanted erosion at the sites. As sediment is captured over a period of time, periodic dewatering of the detention facilities and mechanical removal of the accumulated sediment would occur. On-going invasive species management would be the responsibility of the sponsor. Costs for all maintenance activities would be variable depending on conditions at the time and would be borne by the County.

4. ALTERNATIVES TO THE PROPOSED ACTION:

Several alternative strategies were considered that would accomplish the goal of restoring the integrity of the dam and spillway infrastructure and the capacity of the detention pond to ameliorate downstream flow. The selection of the proposed action over these alternatives was based on the effectiveness, practicability and cost of achieving the project purpose as discussed below.

4.1 Alternative 1 (“No Action” Alternative): The Council on Environmental Quality (CEQ) regulations require analysis of the “no action” alternative (40 Code of Federal Regulations (C.F.R.) § 1502.14). “No Action” as referred to in this EA, would mean that no work would be performed to address the eroding and deteriorating dam and spillway problems that are currently occurring. Erosion would continue to occur, eventually resulting in a complete breach of the dam. At that point the pond would no longer provide a stormwater detention function. Due to these reasons, Alternative 1 (No Action) was not selected as a viable alternative.

4.2 Alternative 2 (Removal of the Ponds): Alternative 2 would consist of removing the existing dams and letting the area function as a stream. However, without extensive restoration and bank protection this option would result in increased downstream flooding and would likely also increase erosion of the channel. It should be noted that if the current conditions are not addressed (Alternative 1, No Action), it is likely that the dams would fail: thus, Alternatives 1 and 2 would have similar outcomes at some point in the future. Alternative 2, necessarily requiring stream restoration efforts, was considered beyond the scope and authority of the current project. Thus, Alternative 2 was not selected as a viable alternative.

4.3 Alternative 3 (Proposed Action): This alternative represents the proposed action as described in Section 3.

4.4 Alternative 4 (Reconstruction of Existing System): Alternative 4 would consist of reconstructing the dams to include a wet pond and immediately downstream a dry detention pond. However, this alternative would seek to reconstruct the dams utilizing construction standards more consistent with those currently accepted for construction of earthen dams. This would include designing a principal spillway that can accommodate up to the 100-year design storm and increasing the width of the dams such that the side slopes are established at a gentler slope than those currently on site.

The general parameters of this alternative included:

- Re-grade the slopes of the dams to 3-feet horizontal to 1-foot vertical to increase slope stability and aid in future maintenance.
- Maintain a normal pool in the wet pond that is approximately the same level as the historical pool elevation.
- Provide for at least 2-feet of free board on the dam without the use of an emergency spillway during the 100-year 24-hour design storm.
- Reconfigure the ponds into an inline system to better control discharges to the downstream channel.

The principal outlet of the wet pond would consist of a 24-foot weir opening in a concrete box set in the pond which would drain runoff from the pond under the dam via two 48-inch reinforced concrete pipes (RCP). The normal pool elevation (i.e. dry weather water elevation) would be set at elevation 1038.00 or approximately 8 inches lower than the existing conditions. The reconstructed dry detention pond would have two 48-inch RCPs passing through the dam with a metal plate attached to the upstream headwall to restrict discharges to the pipes via 2-43.75-inch orifices. Alternative 4 would allow the dams to be reconstructed utilizing slopes and outlet devices more consistent with current construction practices which would result in a safer dam. However, due to the fact that the larger dams would occupy more space than the existing dams, it has been shown that an increase in discharge rates would likely result for the more frequent storm events (i.e. 1-year, 2-year, and 5-year events) due to less space available for flood storage. This in turn could result in additional channel erosion.

4.5 Alternative 5 (Wet Pond): Alternative 5 would consist of removing the existing dams and constructing a single dam at the location of the existing detention pond that would hold a permanent pool of water. This new wet pond would be larger than the existing pond. Additionally, this pond would also be able to provide some detention reducing discharge rates on downstream properties and would also provide a water quality benefit to downstream receiving waters. The general parameters of this design are as follows:

- Grade the slopes of the dam to 3-feet horizontal to 1-foot vertical to increase slope stability and aid in future maintenance.

- Maintain a normal pool in the wet pond that would be equal to the water quality volume of the contributing watershed providing for a water quality benefit to downstream receiving waters.
- Provide for at least 2-feet of free board on the dam without the use of an emergency spillway during the 100-year 24-hour design storm.
- Maintain or reduce downstream discharge rates for the 1-year, 2-year, 5-year, 10-year, 25-year, 50-year, and 100-year design storms over existing discharge rates.

The principal outlet of the new wet pond would consist of an 8-inch orifice at the normal pool elevation of 1034.00 and a multi-stage weir opening in a concrete box set in the pond which would drain runoff from the pond under the dam via a single 60-inch RCP. A trash rack or similar device would be required to ensure that the orifice does not become clogged with debris.

Alternative 5 would allow the dam to be reconstructed utilizing slopes and outlet devices more consistent with current construction practices, which would result in a safer dam. Finally, the wet pond would also be able to reduce the peak discharge rates between 4% and 16% of existing flow rates at Warsaw Drive.

The principal differences in function of the proposed action and this alternative would be that this alternative would have a permanent pool of water which would reduce peak discharge rates by a markedly lesser amount. The greater detention capacity of the proposed alternative would provide greater environmental benefits due to reduced storm flows compared to Alternative 5. The greater water storage capacity of the proposed action was the basis for rejecting the alternative.

5. ENVIRONMENTAL IMPACTS: Environmental impacts of the proposed action are described for each of the significant resource areas and are compared with the No Action and other alternatives. Impacts are considered to occur relative to the previously described existing condition. When the existing condition is changing in a known trend, the impact is considered relative to the trend.

5.1 Water Quality: The proposed removal and reconstruction of a single wetland detention pond would result in temporary increases in turbidity and sediment loading in the creek. The disturbance of sediments would result from excavation, grading, filling and associated use of heavy machinery. However, this effect is expected to be localized to the immediate vicinity of the work, temporary in nature and would cease upon project completion. A plan to dewater the site has been developed (Section 3) which would minimize soil erosion from the construction site. In addition, there would be adequate care taken to minimize soil disturbance and adequate Best Management Practices (BMPs) would be implemented that would result in minor amounts of increased turbidity. Water Quality Certification from the State of Georgia Environmental Protection Division is being sought as part of the public interest review and publication of Joint Public Notice of the project in cooperation with that agency. All terms and conditions of the certification would be complied with assuring that all State water quality standards are met. Any adverse impacts would be expected to be minor and temporary.

However, there would be beneficial long-term impacts associated with construction of the proposed action. Stabilization of the eroding dam and planting with wetland vegetation would stabilize soils and mean less sediment entering downstream waters and provide an opportunity to remove accumulated sediment during maintenance of the facility.

The No Action Alternative would maintain the current condition of the deteriorating dam and erosion of sediments into the stream. This would result in continued turbid conditions and the continual degradation of water quality.

For Alternative 2, the erosion could be temporarily stabilized. This would reduce sedimentation into the downstream waters. However, long term channel erosion and incision would likely occur and sediments entering the system would continue to migrate downstream.

For Alternatives 4 and 5, there would be water quality impacts similar to the proposed action. Short term there would be localized increases in turbidity due to the construction, which would improve upon completion of the project. However, long term, these alternatives would provide beneficial impacts through erosion control and maintenance activities that would prevent the sediment from entering the stream.

5.2 Stormwater: Construction of the proposed action would have no significant adverse impact on stormwater in the short term. All work would comply with the Georgia Erosion and Sedimentation Act of 1975 and local erosion and watershed protection ordinances. Additionally, construction would comply with the Georgia Rules and Regulations for Water Quality Control, 391-3-6-16 (GADNR, 2004). Installation, use, and maintenance of appropriate BMPs would prevent impacts from construction site stormwater. Long term, the project is expected to provide important positive benefits to stormwater flows and storage. By increasing the capacity of the detention ponds, it is expected that peak stormwater flows downstream would be reduced by 14-22%.

The No Action alternative would maintain the current condition of eroding dam and spillway with continuing loss of detention capacity. This would result in slowly increasing flows downstream.

Alternative 2 would result in removal of the detention ponds with immediate loss of stormwater detention, meaning increased downstream flows.

Alternative 4 would require larger dams occupying more space than under current conditions with a resulting loss of storage capacity. That would result in a greater stormwater flow rate.

Alternative 5 would maintain a wet pond, necessarily reducing the capacity of the pond to store water. The reduction in peak storm flows would be 4-16% compared to the existing condition.

5.3 Groundwater: For the proposed action and all “action” alternatives, there would be no work that would interact with groundwater; all work would be limited to surface construction. There would be no discharge of a contaminant that could reach groundwater. Likewise, the no action alternative would have no impacts to groundwater.

5.4 Floodplains: The project would occur outside the designated floodplain. There would be no impacts on floodplains by any alternative.

5.5 Wetlands and Water: No wetlands are present on the project site; therefore, no wetland impacts would occur from any of the alternatives. The proposed action would result in the creation of a wetland planted with a mixture of emergent, herbaceous and hardwood species, resulting in a minor beneficial impact. For the proposed action, in order to construct the new dam and spillway, approximately 130 linear feet of the existing stream would be filled and rerouted through a new spillway to the downstream point of the fill (Figure 4). In light of the existing disturbed conditions and deteriorating nature of the dam and spillway, this would be a minor adverse impact. After construction the streambed would be stabilized with less erosion compared to the existing conditions. Therefore, there would be long-term benefits to the stream as a result of the action. The proposed action complies with the EPA Section 404(b)(1) guidelines for the discharge of dredged or fill materials into waters of the United States. A Section 404(b)(1) evaluation has been completed demonstrating that impacts to the aquatic environment have been avoided and minimized to the extent practicable (Appendix B).

The No Action alternative would result in continued erosion and collapse of the spillway. Although there would be no short-term impacts such as those involved with construction, there would be long-term impacts in that the stream channel would continue to experience bank erosion and channel incision. As the detention capacity of the facility became reduced, peak downstream flow would increase, exacerbating those problems.

Alternative 2 would involve short-term construction impacts to the stream from grading and filling of the existing ponds. Long-term impacts to the stream would also result as peak flow would increase causing increased erosion downstream. This alternative would require a detailed stream restoration effort which would fall outside the scope and authority of the current project.

Alternatives 4 and 5 would result in stream impacts similar to those of the proposed action. Approximately 130 linear feet of the existing stream would be filled and rerouted through a spillway to the downstream point of the fill (Figure 4). Due to the existing disturbed conditions and deteriorating nature of the dam and spillway this would be a minor adverse impact. After construction the streambed would be stabilized with less erosion compared to the existing conditions. Therefore, there would be long-term benefits to the stream as a result of those alternatives.

5.6 Water Supply: The stream is not large enough to serve as direct source of water supply to any persons, local municipalities or other groups. The volume of water contributed to the Chattahoochee River via this drain is negligible. Therefore, neither the proposed action nor any of the alternatives would have an impact on water supply.

5.7 Fish and Fishery Resources: It is unknown if fish use the project site as habitat. Any existing fish found are likely to be highly tolerant of human induced disturbances. Such fish, if they exist, would be removed by the construction activities involved with the proposed action

and by the other “action alternatives”. Under the “No Action” alternative there would be no change from the existing condition.

5.8 Endangered, Threatened or Protected Species: As discussed in Section 2.8, there is no adequate habitat within the project area for any Federally-listed species. Therefore, no impacts to threatened or endangered species are likely to result from the proposed action. The U.S. Fish and Wildlife Service concurred with the Corps determination of not likely to adversely effect in an e-mail dated June 10, 2011, which stated “The following comments are provided in accordance with the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e), and section 7 of the Endangered Species Act, as amended (16 U.S.C. 1531-1543). The Service has reviewed information provided by email on May 3, 2011 for the Swaybranch Drive project in Fulton County, Georgia. The project site contains no Federally-listed species or suitable habitat for listed species. Therefore the Service concurs with the Corps determination that the project as proposed would "not likely adversely affect" Federally-listed species or its critical habitat.”

5.9 Wildlife Resources and Habitat: The species currently inhabiting the area use the riparian areas for food, water, shelter and breeding habitat. They are mostly tolerant of human activities. As such, there would be no significant impacts to those populations as a result of the proposed action. In the immediate vicinity of the work areas small animals including mammals, birds, reptiles and amphibians would be temporarily displaced during the construction period. A few individuals incapable of escaping, such as nesting birds or slow-moving amphibians, could be killed since there would be no restricted construction period to avoid those impacts. The project has been coordinated with FWS as noted above and due to the scope of the project and previously disturbed habitat, this mortality would be a minor impact, and any lost individuals would be replaced through natural increase following project completion. Habitat, mostly including the existing vegetation in and around the edge of the ponds and dams would be removed during construction. The area would be replanted with a mixture of wetland and upland plant species upon project completion, previously described in Section 3. Total disturbed habitat is estimated to be 1.5 acres.

The No Action Alternative would have no immediate adverse impacts. It would allow the continual erosion of the streambanks, which would cause a loss of riparian habitat in the long-term. Alternative 2 would have impacts similar to the No Action alternative, due to removal of the detention facilities and associated stormwater flows. Alternatives 4 and 5, either of which includes a rebuilt detention basin, would have impacts similar to the proposed action.

5.10 Land Use: None of the alternatives would result in impacts to current land use. Implementation of the proposed action would be conducted in and around the immediate vicinity of the existing detention ponds. These areas are not currently developed areas. There would be no impacts to residential and commercial uses of surrounding lands. Agricultural lands would not be impacted. The project would not affect current local land use ordinances.

5.11 Geology and Soils: None of the alternatives would have impacts on the geology or overall topography of the area. There would be minor impacts to the project area due to excavation, grading and construction. The proposed action would have local impacts to soils. Heavy equipment would be used to move soil, excavate and grade the area at the work sites. There

would be potential for both soil compaction and erosion during the construction of the project. The potential for erosion and soil runoff exists during the construction of any of the “action alternatives” exists. However, the proposed action would be implemented with all appropriate BMPs and soil and erosion controls in place. Such controls would result in minor adverse impacts.

However, the proposed action would have long-term beneficial impacts to the area soils. Stabilization of the stream and banks would reduce erosion and soil loss. Riparian planting would also help to stabilize soils.

The No Action Alternative would have no immediate negative impacts such as those described. Neither would it have any of the benefits and long term, soils on the dam and along the banks of the creek would be expected to continue to erode in both the short and long term.

The other action alternatives would have similar impacts to the proposed action, as discussed.

5.12 Historic and Archeological Resources: The Corps has determined that there would be no historic properties affected by the proposed action or any other alternative as per 36 Code of Federal Regulation 800.4(d)(1). This finding is being coordinated within the Georgia State Historic Preservation Officer (SHPO) for their comment. In previous consultation, the Native American Tribes have expressed that they do not wish to consult on projects located in previously disturbed urban settings. Any comments received from SHPO or others will be addressed in the Final EA, here and in Section 9, Coordination, as appropriate.

5.13 Socioeconomic Conditions: The proposed action and other action alternatives would result in a temporary increase in construction-related jobs in the local area. This impact is considered minor due to the scope of the project. It is not known whether such employment would be represented by those already employed or whether new jobs would result. There would be a short-term increase in the sale of construction related materials and fuel in the local area. There would be no long-term impacts to the local economy.

There would be no relocations required as a result of the proposed action. There would be no changes in expected population growth patterns or local residential or commercial development. There would be no impacts to salaries or property values in the area.

Essentially, no differences between alternatives would be expected in impacts to the above socioeconomic conditions. The No Action alternative would not result in any impacts to local employment.

5.14 Traffic: The proposed action and other action alternatives would not impact the major roads in the area. Anticipated traffic as a result of the action would include increased, temporary construction traffic from the movement of equipment to and from the construction site. This would consist of equipment brought in by trucks and trailers, and worker’s privately owned vehicles. These would be expected to be very small in number, due to the limited scope of work. Entry to the sites would likely occur via access points from local streets. Residential areas with crews entering and exiting specific work areas may experience some adverse traffic impacts.

However, the impacts are considered to be minor and short term. It is anticipated that short term delays of a few minutes could be expected while equipment is being loaded and unloaded. Essentially, no differences between alternatives would be expected in impacts to traffic. The No Action alternative would not result in any impacts to traffic.

5.15 Noise: Noise would be generated by the proposed action and other action alternatives from a number of construction-related sources. These include the vehicular traffic cited above, heavy equipment, etc. Typical sources of construction-related noise are shown in Table 3, along with expected noise levels at 25 and 50 feet from the source. The nearest residence is approximately 50 from the site. These noise levels exceed the ambient noise levels cited in the Corps study (USACE, 1998) of 58-72 dB for urban residential areas. It is estimated that such noise levels from the proposed action would be comparable to noise originating from a residential home or commercial building construction project. This may constitute a minor nuisance to the nearby community. Work would occur only during daylight hours assuring no sleep disturbance for most people, and the overall impact would be short term and minor.

The No Action Alternative would not result in any noise generation. All “action” alternatives would generate similar degrees of noise.

Table 3. Typical Noise Generating Sources in Typical Urban Environments

Construction Phase	Equipment	Noise Level at 25 feet (dBA-Leq)	Noise Level at 50 feet (dBA-Leq)
Clearing and grubbing	Bulldozer, backhoe	95	89
Earthwork	Scraper, bulldozer	97	91
Foundation	Backhoe, loader	94	88
Superstructure	Crane, loader	95	89
Base preparation	Trucks, bulldozer	97	91
Paving	Paver, trucks	98	92

Source: U.S. Department of Transportation, 1977

5.16 Air Quality: The project would have short-term effects on emissions into the air as a result of exhaust from internal combustion engines. Construction of the project would generate emissions from heavy equipment working on site. In addition, during construction, fugitive dust emissions from ground-disturbing activities would occur. Uncontrolled fugitive dust emissions, including particulate matter less than 10 microns in diameter, would be temporary and localized. Impacts of emissions and fugitive dust on air quality and the human environment should be short-term and minor. Because of the short-term nature of the project and generally small amount of emissions expected from on-site equipment, emissions would qualify as *de minimis* and therefore are exempt from the need to complete a General Conformity Determination. This is consistent with current the U.S. Environmental Protection Agency regulations (USEPA 2011).

The No Action Alternative would not result in any emissions of engine exhaust or fugitive dust. All other “action” alternatives would generate degrees of emissions similar to the proposed action.

5.17 Aesthetics: The proposed work to rehabilitate and repair the existing deteriorating detention ponds would be a beneficial aesthetic impact. The No Action Alternative would result in continued deterioration of the facility and degradation of aesthetics. All other alternatives would produce varying degrees of aesthetic improvement but generally similar to that of the proposed work.

5.18 Hazardous and Toxic Materials: The Phase I ESA described in Section 2.18 found that there is no evidence of hazardous or toxic materials within the work area and therefore, the proposed action would have no potential of interacting with such materials. There would be no differences among any of the alternatives and there would be no potential impacts due to hazardous and toxic materials.

5.19 Public Safety: For all alternatives, there would be no specific change in public safety hazards on site. During construction, standard safety measures would be taken to ensure unauthorized persons do not have access to the site. This would include use of construction fencing, signage, prohibiting trespassers, etc. Minor benefits could result post-construction by repairing the existing deteriorating structures and placing a fence around the site. After construction, placement of a fence around the property would help prevent accidents by preventing access to the property. None of the alternatives would result in increased safety hazards.

5.20 Protection of Children: None of the alternatives would result in increased safety hazards to children. During construction, standard safety measures would be taken to ensure children do not have access to the site. This would include use of construction fencing, signage, prohibiting trespassers, etc. After construction, placement of a fence around the property would help prevent accidents by preventing access to the property.

5.21 Cumulative Impact: The CEQ regulations define cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other action.” (40 C.F.R. § 1508.7). Actions considered in the cumulative impacts analysis include implementation of the proposed action and no action alternatives and other Federal, State, Tribal, local agencies, or government or private actions that impact the resources affected by the proposed action.

The total direct impacts associated with the project are minor. The proposed rehabilitation of the stormwater detention facility would benefit the local community because it would reduce erosion and provide improved stormwater detention capacity. This would benefit areas downstream. Overall, with other similar maintenance and repair projects and additional installation of stormwater detention structures that are being planned or implemented in other nearby watersheds combined with adequate stormwater controls in less impacted areas, the project would add to the protection of the aquatic habitat for the various watersheds and in the downstream areas. This would occur while allowing continued economic and urban development. The need for future detention facilities and their effectiveness would depend largely on the degree of urbanization and associated impervious surface, the degree to which

may occur is not fully known. Downstream water quality could be impacted either positively or negatively by such combinations of stormwater management and urbanization. No adverse cumulative effects are expected from the proposed action.

6. IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES WHICH WOULD BE INVOLVED SHOULD THE PROPOSED ACTION BE IMPLEMENTED:

Any irreversible or irretrievable commitments of resources involved in the proposed action have been considered and are either unanticipated at this time, or have been considered and determined to present minor impacts. Although natural habitat would be impacted, it is not considered irreversible. Vegetative plantings would be made that would restore the resource. Some larger second-growth trees may be required to be removed and their replacement with similar sized trees would be in the order of decades to reach maturity; but the impact is not irreversible.

7. ADVERSE ENVIRONMENTAL IMPACTS WHICH CANNOT BE AVOIDED:

In order to rebuild the detention facility as proposed, the adverse impacts discussed in Section 5 cannot be avoided. Notably the impacts to the existing ponds and stream and their aquatic habitat would experience short-term adverse impacts in order to provide long term gain. Any adverse environmental effects, which cannot be avoided during implementation of the project, are expected to be minor both individually and cumulatively and have been minimized to the extent practicable.

8. THE RELATIONSHIP BETWEEN SHORT-TERM USES OF MAN'S ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY:

The project would implement a rehabilitation of an existing stormwater detention pond, as previously discussed. There would be short-term negative impacts associated with the work. Long-term downstream benefits would result by reducing the existing erosion and enhancing stormwater detention. The proposed action constitutes a short-term use of man's environment and would enhance the environment of the area.

9. COORDINATION: *This Draft EA is made available for review by the interested public and agencies as described in Section 1.6. After the comment period, all comments will be discussed here in a revision of this Section. Should multiple comments of the same nature be received, they may be categorized and discussed by the topic rather than individually. All original comments will be kept on file in the Mobile District, U.S. Army Corps of Engineers. Based on the comments, and their discussion in this Section, revisions may be made to other parts of the Final EA.*

There has been ongoing coordination with the FWS throughout the early planning phases of this project. As previously discussed, in an e-mail from the FWS Ft. Benning Field Office dated June 10, 2011, they concurred with the project (See Section 5.8).

10. REFERENCES CITED:

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APPENDIX A

Section 404(b)(1) Evaluation

**SECTION 404(b)(1) EVALUATION
FOR THE PROPOSED
MARKET PLACE DAM REHABILITATION, SWAYBRANCH DRIVE, ROSWELL,
FULTON COUNTY, GEORGIA
A FEDERALLY AUTHORIZED PROJECT**

I. PROJECT DESCRIPTION:

a. Location. The proposed action involves reconstruction of two degraded detention ponds on an unnamed creek in Roswell, Fulton County, Georgia. The project is located between Swaybranch Drive and Market Place on a perennial unnamed tributary to Big Creek, which flows into the Chattahoochee River.

b. General Description. The area is within the metropolitan area of Atlanta, Georgia. The project would rehabilitate a pair of degraded ponds and a spillway. The spillway is threatened by severe erosion which is undermining the existing concrete structure. The project would include the removal of the existing ponds, followed by reconstruction of a single extended wetland detention pond.

c. Authority and Purpose. The proposed action is a Federal project in cooperation with a non-Federal sponsor (Roswell, Georgia) that is using Federal funding through the Corps under Section 219 of the Water Resources Development Act to implement stormwater treatment and capacity infrastructure projects. In compliance with requirements for potential Federal funding under Section 219, an Environmental Assessment (EA) has been prepared to evaluate the environmental and socioeconomic effects, and this Section 404(b)(1) Analysis has been prepared in compliance with the Environmental Protection Agency's Section 404(b)(1) Guidelines and attached to the EA as Appendix A. A more detailed description of the proposed action and comparison of practicable alternatives is included in the EA.

The purpose of the project is to restore detention capacity of the ponds that has been reduced over time due to erosion and degradation of the existing facilities. This would provide for reduced peak storm flows downstream and less erosion. Those actions would provide additional benefits to the community and area by aiding in improved water quality and natural habitat in the aquatic environment.

d. General Description of Dredged/Fill Material.

1. General Characteristics of Material (grain size, soil type). Existing soils at the project site that would be excavated or graded on site range from clays and loams to some sandy fill material. Additionally, fill materials would include clay and sand fill material and riprap transported to the site.
2. Quantity of Material. Excavated material would be removed by trackhoe and loaded on trucks for disposal. Other materials would include on-site soils graded on site by a variety of heavy equipment including trackhoes, dozers, and other earthmoving equipment. Total volume of material to be removed would be approximately 5,200

cubic yards, of which approximately 4,000 cubic yards would be hauled to an approved upland fill location. Fill materials would include approximately 300 cubic yards of clean earthen fill.

3. Source of Material. The material to be removed is composed of the existing on-site soils. Fill materials would be composed of on-site soils and clean earthen fill from commercial sources.

e. Description of the Proposed Discharge Site.

1. Location. The location of proposed action is described above. The specific location of the work and drawings showing the work are presented in the EA (Figures 1-4).
 2. Size. The total affected area would be approximately 1.5 acres in a fairly rectangular shape.
 3. Type of Site. The proposed discharge sites would be an unnamed perennial stream and two existing stormwater detention ponds.
 4. Type of Habitat. Existing habitat is typical of north Georgia streams that have been impacted by surrounding urban development. Vegetation is a remnant of oak-hickory-pine secondary growth forest typical of the Piedmont area, but has been highly disturbed. Wetlands are absent. The stream is a remnant of an unnamed perennial stream with a watershed of approximately 39 acres. Approximately 130 feet of the stream would be filled and included as part of the spillway of the new detention facility. The stream has been previously impacted by the construction of detention ponds as an in-stream feature. It is likely that the stream in its original condition was not large enough to support true riffle and pool type habitat or to support permanent populations of fish. Erosion and sedimentation caused by high water flows during flashy conditions is a contributing factor to continuing degradation of habitat.
 5. Timing and Duration of Discharge. Dredging and discharge activities would be scheduled for approximately fall of 2011 when all environmental clearances are obtained. Work is expected to take approximately 2 months for completion once begun.
- f. Description of Disposal Method. Excavated materials would be removed by trackhoe, front-end loaders and similar heavy equipment and trucked to an approved off-site upland location. Fill would be accomplished by use of heavy equipment for grading materials on site, and placement and grading of fill materials delivered to the site.

II. FACTUAL DETERMINATIONS (Section 230.11):

- a. Physical Substrate Determinations.

1. Substrate Elevation and Slope. The current substrate elevation and slope is dominated by that of the existing ponds, and associated dam and spillway. Specific features would be modified to accommodate the design of the new detention pond and dam. The old dam would be removed and a new dam would be constructed with a new outlet structure to replace the existing spillway. However, the elevation and slope of the overall site relative to surrounding conditions would remain unchanged.
 2. Sediment Type. Existing on-site sediment type is composed of a variety of materials including native soils, fill material brought in for the existing dam and accumulated sediment in the detention ponds, as well as concrete, rock and debris that have accumulated over time. For the proposed project, material would be restricted to clean material graded on site and clean fill material hauled in. Other unusable materials would be disposed of in an approved upland landfill site.
 3. Dredged/Fill Material Movement. No erosive offsite movement of dredged/fill material is anticipated. All graded areas would be immediately stabilized with vegetative cover. Riprap would be of a size sufficient to remain stable during flood events. All appropriate BMP's would be implemented to prevent erosion and siltation from the site.
 4. Physical Effects on Benthos (burial, changes in sediment type, etc.). In the immediate vicinity of the work, benthic organisms could be covered by several feet of graded material and/or riprap, killing them. These areas would be limited in size and full recolonization of the area after project completion is expected.
 5. Actions Taken to Minimize Impacts. All appropriate Best Management Practices (BMP)s would be implemented to prevent erosion and siltation from entering the creek. Work within in the creek channel would be limited to the minimum time necessary to accomplish the project.
- b. Water Column Determinations.
1. Salinity. Not applicable
 2. Water Chemistry (pH, etc.). Water chemistry would not be significantly affected.
 3. Clarity. Water clarity would be temporarily decreased in small, localized areas of project where excavation and riprap placement would occur. However, any increases in turbidity are expected to be short-lived and rapidly decline to ambient levels through use of BMPs and replanting of native vegetation.
 4. Color. Not significantly impacted.
 5. Odor. Not significantly impacted.
 6. Taste. Not significantly impacted.

7. Dissolved Gas Levels. Not significantly impacted.
 8. Nutrients: Not significantly impacted.
 9. Eutrophication. Eutrophication would not be significantly affected since the proposed dredged material is not expected to contribute additional nutrients to the discharge area.
- c. Water Circulation, Fluctuation and Salinity Gradient Determinations.
1. The reconstruction of a single detention basin would produce a net positive impact on the flow of water.
 - a. Current Patterns and Flow. Increased detention capacity of the new facility and elimination of ongoing erosion and deterioration of the dam and spillway would reduce peak flows during and after storm events. This would reduce downstream erosion and improve water clarity. During construction, there would be short-term loss of detention benefits. However, application of sound engineering principles and BMPs would minimize any adverse effects.
 - b. Velocity. Downstream water velocity would be slowed during high flow events, as an overall benefit of the project.
 2. Stratification. No stratification exists at the project site due the shallow depths of the project area.
 3. Hydrologic Regime. The area would remain mostly unchanged from its current hydrologic regime in that there would continue to exist a detention pond providing similar functions to those already present. However there would be improvements in flows and velocities to downstream areas and longer detention of stormwater in the facility.
 4. Normal Water Level Fluctuations. High flows and flood events should be reduced as detention areas retain and slowly release flood waters. This would result in a more stable condition.
 5. Salinity Gradient. Not applicable.
- d. Suspended Particulate / Turbidity Determinations.
1. Expected Changes in Suspended Particulates and Turbidity Levels in Vicinity of Disposal Site. No permanent increases in turbidity would result. There would be some localized increases in turbidity and suspended particulates during the construction phase of the project. This would clear upon completion of construction and permanent vegetation that would be planted would prevent further erosion.

2. Effects (degree and duration) on Chemical and Physical Properties of the Water Column. The chemical and physical properties of the water column would not be significantly affected.
- a. Light Penetration. Reductions in light penetration due to temporary increases in turbidity during construction would be short-term and localized and are not expected to be significant.
 - b. Dissolved Oxygen. Dissolved oxygen would not be significantly affected.
 - c. Toxic Metals and Organics. Toxic metals and organics are not expected to be introduced into the water column.
 - d. Pathogens. No significant effects are expected.
 - e. Aesthetics. There would be temporary impacts during the construction phase of the project. After construction, there should be an improvement in the aesthetics due to repair and rehabilitation of the existing deteriorating facilities.

3. Effects on Biota.

- a. Primary Production / Photosynthesis. Primary productivity would be temporarily but insignificantly lowered by the discharge since the turbidity plume would only affect a small area and would be of limited duration. The creek is not an area of high primary productivity.
- b. Suspension / Filter Feeders. Due to improbability of habitat and corresponding low numbers of suspension / filter feeders, along with limited work areas, any effects are expected to be temporary, minimal and insignificant.
- c. Sight Feeders. Sight feeders, especially fish, are generally absent and would not be affected.

4. Actions Taken to Minimize Impacts. All appropriate BMP's would be implemented to prevent erosion and siltation into the creek.

e. Contaminant Determinations.

The sediments to be discharged consist primarily of clean riprap and earthen material graded on site. A Phase I Environmental Site Assessment (EA, Section 2.18) determined that no hazardous materials are known to occur in the area. There is reason to believe that the proposed dredged material is not a carrier of contaminants or that levels of

contaminants are substantially similar at both the extraction and disposal sites. The proposed discharge material, therefore, meets the testing exclusion criteria.

f. Aquatic Ecosystem and Organism Determinations.

1. Effects on Plankton. No significant impact.
2. Effects on Benthos. There would be a minimal destruction of benthic habitat and organisms within the existing detention ponds. Those populations would be expected to rapidly recolonize the area after project completion.
3. Effects of Nekton. Nektonic species in the ponds are comprised mostly of macroinvertebrates. These are expected to be displaced during work associated with the project, and return to the area once physical disturbance ends and turbidity levels return to ambient conditions.
4. Effects on Aquatic Food Web. No significant impact is expected.
5. Effects on Special Aquatic Sites.
 - a. Sanctuaries and Refuges. Not applicable.
 - b. Wetlands. No wetlands would be affected by the proposed action.
 - c. Mud Flats. No mud flats would be affected by the proposed action.
 - d. Vegetated Shallows. No vegetated shallows would be affected by the proposed action.
 - e. Coral Reefs. Not applicable.
 - f. Riffle and Pool Complexes. No riffle and pool complexes would be affected by the proposed action.
6. Effects on Threatened and Endangered Species. The U.S. Fish and Wildlife Service county data base has been consulted and there are four threatened or endangered species listed in Fulton County. As discussed in the EA at Section 2.8, the project site does not have habitat for any of these species. Therefore it is concluded that it is unlikely that any threatened or endangered species would occur on site and there would be no impacts to the species. The U.S. Fish and Wildlife Service in an e-mail dated June 10, 2011 concurred, stating “The following comments are provided in accordance with the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e), and section 7 of the Endangered Species Act, as amended (16 U.S.C. 1531-1543). The Service has reviewed information provided by email on May 3, 2011 for the Swaybranch Drive project in Fulton County, Georgia. The project site contains no Federally-listed species or suitable habitat for listed species. Therefore the Service concurs

with the Corps determination that the project as proposed would "not likely adversely affect" Federally-listed species or its critical habitat".

7. Effects on Other Wildlife. The species currently inhabiting the area use the riparian areas for food, water, shelter and breeding habitat. They are mostly tolerant of human activities. As such, there would be no significant impacts to those populations as a result of the proposed action. In the immediate vicinity of the work areas, small animals including mammals, birds, reptiles and amphibians would be temporarily displaced or destroyed during the construction period.

g. Proposed Disposal Site Determinations.

1. Mixing Zone Determination. Determination of a mixing zone was not accomplished because of the nature of the material (riprap and graded soil) and the limited nature of the work. However, state water quality requirements would be utilized; therefore, turbidity downstream would not exceed those standards.
 - a. Depth of Water at the Disposal Site. The depth of the water in the aquatic portions of the proposed project area is approximately one to two feet.
 - b. Current Velocity, Direction, and Variability at the Disposal Site. Flows in the stream portion are variable and flashy. Replacement of the existing facility with an upgraded detention pond would reduce both the peak flows and the flashy nature of the stream.
 - c. Degree of Turbulence. Minimal turbulence is expected except during significant high water.
 - d. Stratification Attributable to Causes such as Obstructions, Salinity or Density Profiles at the Disposal Site. Not applicable.
 - e. Discharge Vessel Speed and Direction, if Appropriate. Not applicable.
 - f. Rate of Discharge. Not applicable.
 - g. Ambient Concentrations of Constituents of Interest. Not applicable.
 - h. Dredged Material Characteristics, Particularly Concentrations of Constituents, Amount of Material, Type of Material (sand, silt, clay, etc.) and Settling Velocities. The material to be discharged consists primarily of fine to coarse sands, compacted clay for dam construction, and limestone riprap. It is therefore expected that the discharged material would rapidly settle out of the water column.
 - i. Number of Discharge Actions per Unit of Time. There would be a one-time discharge associated with the project. Dredging/excavation and discharge activities would be scheduled for fall of 2011 when all

environmental clearances are obtained. Individual work sites are expected to take approximately 2 months for completion of work once begun.

2. Determinations of Compliance with Applicable Water Quality Standards. Based on the low chemical constituent concentrations and the nature of the dredged material, the disposal operation would be in conformance with applicable Federal and state standards. Water Quality Certification, pursuant to Section 401 of the Clean Water Act, will be obtained from Georgia Department of Natural Resources (GDNR), Environmental Protection Division and all conditions complied with.
3. Potential Effects on Human Use Characteristics.
 - a. Municipal and Private Water Supply. No municipal or public water supply intakes are located in the proposed project area.
 - b. Recreational and Commercial Fisheries. No impacts are expected from the project to any recreational fish resources.
 - c. Water Related Recreation. No fishing and boating activities occur in the area of the project site. No impacts would occur.
 - d. Aesthetics. A temporary and localized increase in turbidity would occur during the discharge of the dredged material. Long-term, replacement of the degraded dam and spillway would result in a net improvement of aesthetics.
 - e. Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. Not applicable.
- h. Determination of Cumulative Effects on the Aquatic Ecosystem. The proposed project would have a net benefit to the aquatic ecosystem from the perspective of cumulative impacts. This and similar projects in the watershed would have benefits downstream to other areas impacts by the cumulative impact of urban runoff. The project would produce further benefits if comprehensive watershed planning in the Atlanta metropolitan area were expanded.
- i. Determination of Secondary Effects of the Aquatic Ecosystem. There would be temporary and minor disturbances around the pond and in the area of the downstream creek banks. This could result in some insignificant increase in mortality due to the inability of displaced individuals to compete or avoid predation in other location. Such effects are expected to be temporary and minor.

III. FINDINGS OF COMPLIANCE OR NON-COMPLIANCE WITH THE RESTRICTIONS ON DISCHARGE.

- a. No significant adaptations of the guidelines were made relative to this evaluation.

- b. The proposed discharge represents the least environmentally damaging practicable alternative. Refer to EA for further discussion and comparison of alternatives.
- c. The planned discharge of dredged/fill material would not violate any applicable State water quality standards nor would it violate the Toxic Effluent Standard of Section 307 of the Clean Water Act.
- d. Use of the proposed site would not jeopardize the continued existence of any Federally listed endangered or threatened species or their critical habitat.
- e. The proposed discharge of dredged material would not contribute to significant degradation of waters of the United States. Nor would it result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreation and commercial fishing; life stages of organisms dependent upon the aquatic ecosystem; ecosystem diversity, productivity and stability; or recreational, aesthetic or economic values.
- f. Appropriate and practicable steps to minimize potential adverse impacts of the discharge on the aquatic ecosystem include:
 - 1. The proposed disposal site has been located to avoid or minimize impacts to adjacent existing wetlands or vegetated aquatic habitats (neither habitat present on project site).
 - 2. The discharge site would be graded and vegetated to minimize the probability of future erosion occurring and/or the loss of discharged material from the project site into adjacent waters.
 - 3. All appropriate BMP's and conditions of state water quality certification conditions would be complied with.
- g. The proposed discharge sites for the discharge of dredged material are specified as complying with the Section 404(b)(1) guidelines, with the inclusion of appropriate and practicable conditions to minimize adverse effects to the aquatic ecosystem.

DATE: _____

 Steven Roemhildt
 Colonel, Corps of Engineers
 District Engineer

APPENDIX B

Coordination

From: [REDACTED]
To: [REDACTED]
Subject: Swaybranch Drive (UNCLASSIFIED)
Date: Thursday, August 04, 2011 1:44:54 PM

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----

From: [REDACTED]
Sent: Friday, June 10, 2011 10:03 AM
To: [REDACTED]
Subject: Re: FW: Swaybranch Drive (UNCLASSIFIED)

[REDACTED]

The following comments are provided in accordance with the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e), and section 7 of the Endangered Species Act, as amended (16 U.S.C. 1531-1543). The Service has reviewed information provided by email on May 3, 2011 for the Swaybranch Drive project in Fulton County, Georgia. The project site contains no federally-listed species or suitable habitat for listed species. Therefore the Service concurs with the Corps determination that the project as proposed will "not likely adversely effect" federally-listed species or its critical habitat. If you need additional information please feel free to contact me at the number below.

[REDACTED]
USFWS
West GA Sub Office
P.O. Box 52560
Ft. Benning, GA 31995
706-544-7518

Classification: UNCLASSIFIED
Caveats: NONE



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, MOBILE DISTRICT
CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

June 30, 2011

Inland Environment Team
Planning and Environmental Division

[REDACTED]
Deputy State Historic Preservation Officer
Historic Preservation Division
Department of Natural Resources
254 Washington Street, South West
Ground Level
Atlanta, Georgia 30334

Dear [REDACTED]:

The U.S. Army Corps of Engineers (Corps), Mobile District in partnership with the local elected officials of Roswell, Fulton County, Georgia are proposing to rehabilitate a degraded pond and detention basin and replace it with a single extended detention wetland basin. The existing dams are overgrown with trees and woody vegetation and severe erosion has resulted in compromised dam and spillway, reducing the capacity of the facility to store water as originally intended. The project will be designed with a new dam and spillway to meet current design specifications.

As per requirements outlined in Section 106 of the National Historic Preservation Act, the Corps must consider the effects of the proposed action on historic properties. On May 11, 2011 Corps Archaeologist Mr. Matt Grunewald, Registered Professional Archaeologist (RPA) conducted a site visit. The area of potential effect (APE) was found to be extensively disturbed by previous utility construction, an earthen embankment, retention pond, and erosion. No standing structures were observed within the APE.

The site visit showed that the entire APE had been previously disturbed. Based on the results of the site visit and background research, the Corps has determined **no historic properties affected** by the proposed action as per 36 Code of Federal Regulations 800.4(d)(1).

I. Description of the Undertaking – The action would consist of removing the existing dams and constructing a 0.18-acre (8000 square feet) single detention pond. During dry weather periods, this pond's permanent wet pool would be maintained at approximately 3,600 square feet and would likely contain a self-generating wetlands system in the bottom of the pond to provide a water quality benefit. This pond would provide additional reductions in discharge rates to downstream and would also provide some water quality benefit to downstream receiving waters. The principal outlet of the new detention pond would consist of an 8-inch orifice at the elevation of the constructed wetlands (elevation 1031.00) and a multi-stage weir opening in a concrete box set in the pond which would drain runoff from the pond under the dam via a single 60-inch

set in the pond which would drain runoff from the pond under the dam via a single 60-inch reinforced concrete pipe. A trash rack or some other device will be required to ensure that the orifice does not become clogged with debris. This alternative would allow the dam to be reconstructed utilizing slopes and outlet devices more consistent with current construction practices which would result in a safer dam if constructed properly. The detention pond would also be able to reduce the peak discharge rates between 14% and 22% of existing flow rates at Warsaw Drive. Approximately 130 linear feet of the existing stream would be filled and rerouted to a new spillway.

The APE is defined to include the entire 3.7-acre work area. The geographic coordinates for the site are latitude 34° 01.756" N and longitude 84° 20.403 W. The APE is located between Market Place and Swaybranch Drive in Roswell which is located in the northern part of Fulton County, Georgia. A location map and a portion of the Roswell 7.5 minute U.S. Geological Survey (USGS) quadrangle depicting the project boundary as well as photographs of the APE are enclosed.

II. Methodology and Reporting – A search of the Georgia Natural, Archaeological, and Historic Resources GIS (GNAHRGIS) was conducted for previously recorded archaeological sites. No previously recorded archaeological sites were identified within the APE.

III. Resources Identified and Evaluated (Significance Criteria Considered) - The background research and field visit located no historic properties within the project APE.

IV. Effects Determination and Compliance Decision – Effects determinations are the responsibility of the lead Federal agency. The Corps has considered the nature of the undertaking and the presence of properties that may possess the qualities of integrity and meet at least one of the criteria necessary to be considered eligible for inclusion in the National Register of Historic Places. Based on the background study and site visit, no historic properties are located within the project APE. Therefore, the Corps has determined **no historic properties affected** by the proposed land lease as per 36 CFR 800.4(d)(1).

The Corps asks that you concur with our finding of **no historic properties affected** by the proposed action as per 36 CFR 800.4(d)(1). If you have questions or require further information, please contact [REDACTED] or via email at [REDACTED]

Sincerely,

[REDACTED]
Chief, Environment and Resources
Branch

Enclosures

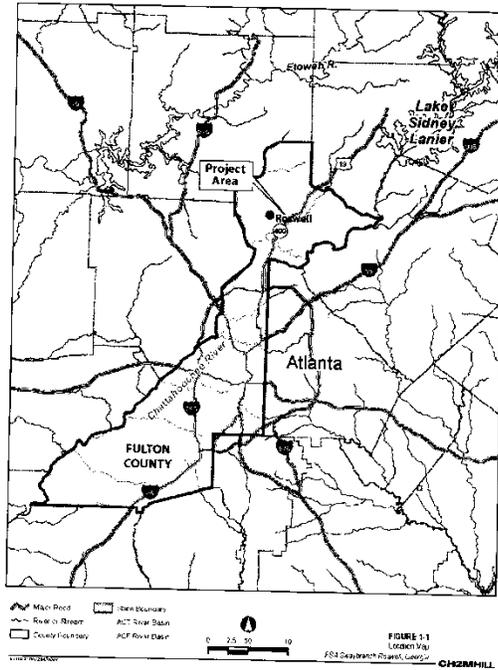


Figure 1. Location of Project in Fulton County, Georgia

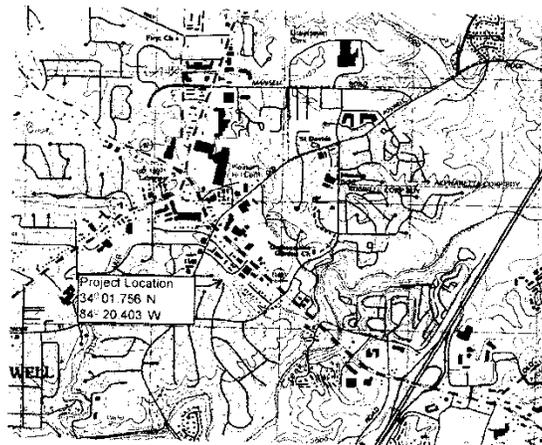


Figure 2. Topographic Map of Project Area

EA-5

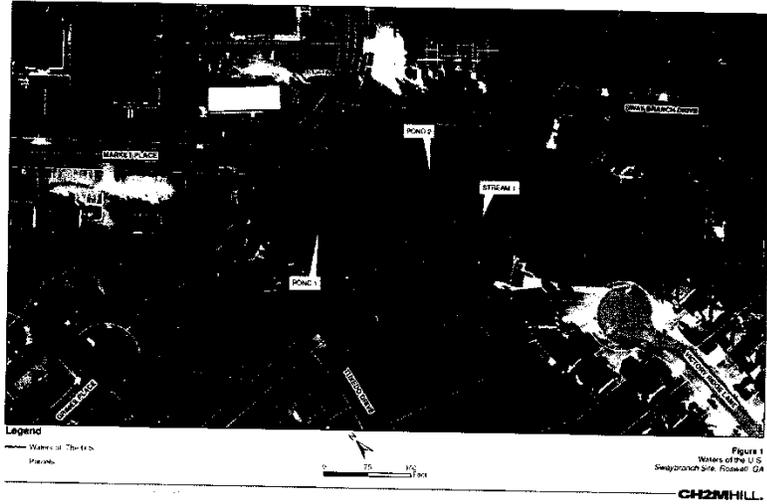


Figure 3. Current On-site Conditions for Swaybranch Drive Detention Pond

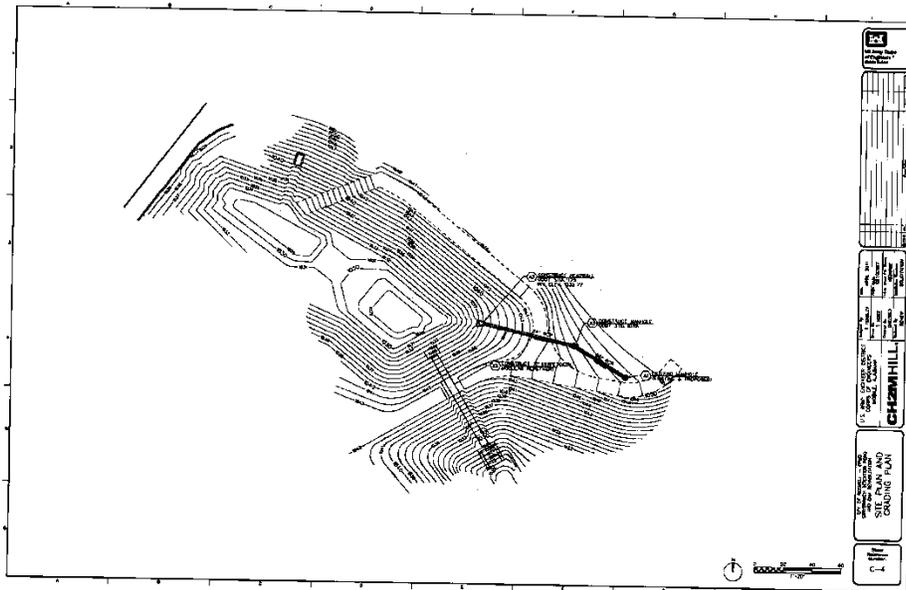
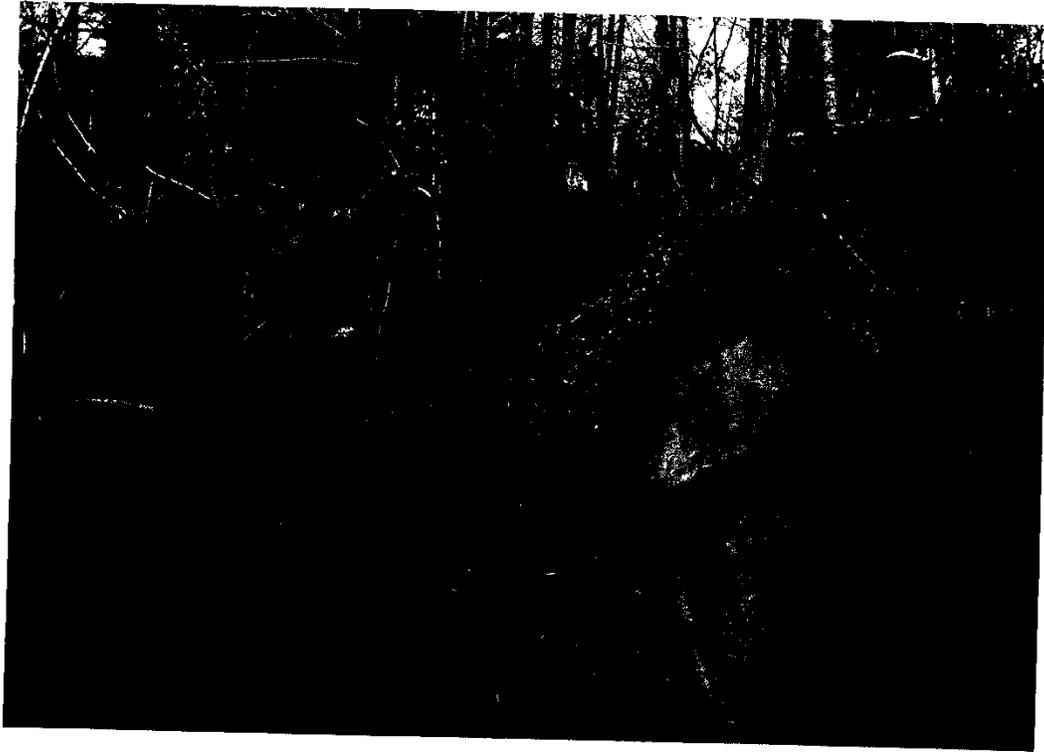
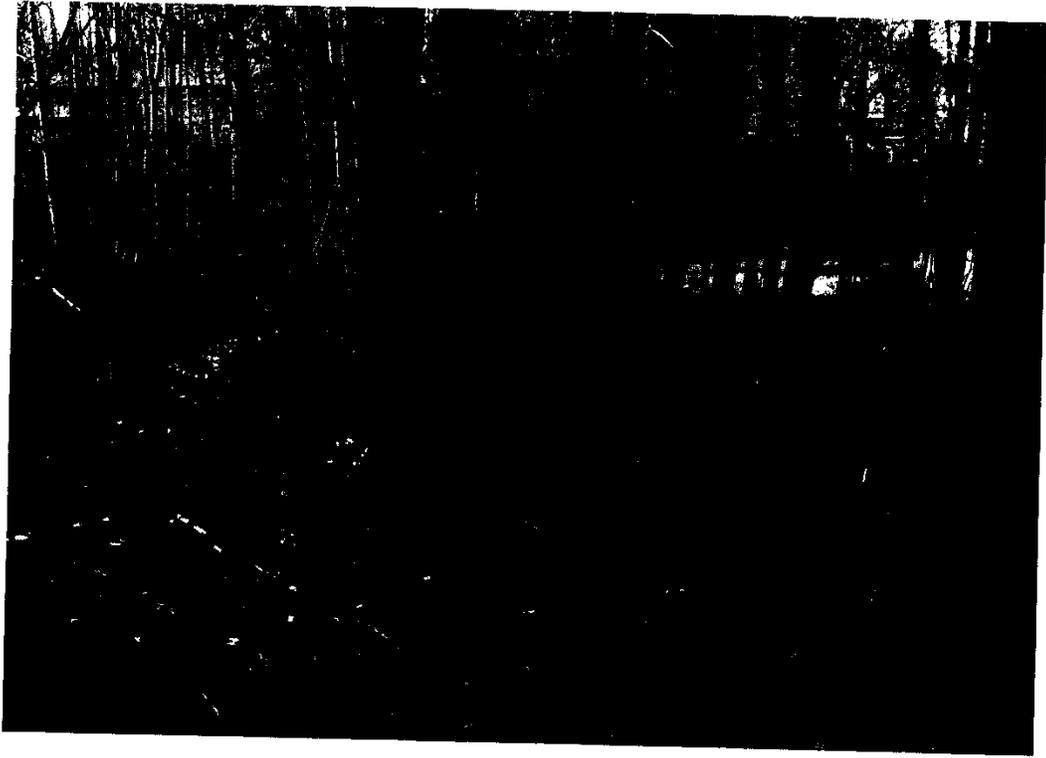


Figure 4. Plan View of Proposed Detention Pond



**DRAFT FINDING OF NO SIGNIFICANT IMPACT
FOR
SWAYBRANCH DRIVE DAM REHABILITATION, ROSWELL, FULTON
COUNTY, GEORGIA**

1. PROPOSED ACTION: The proposed action consists of rebuilding a pair of deteriorating stormwater detention ponds in an impacted urban stream in the Atlanta metropolitan area, in Roswell, Fulton County, Georgia. The existing dams are overgrown with trees and woody vegetation and severe erosion has resulted in a compromised dam and spillway, reducing the capacity of the facility to store water as originally intended. The project would be designed with a new dam and spillway to meet current design specifications.

The proposed action would consist of cutting, dewatering, and removing the existing dams and constructing a 0.18-acre (8000 square feet) single detention pond. During dry weather periods, this pond's permanent wet pool would be maintained at approximately 3,600 square feet and would likely contain a planted wetland in the bottom of the pond which would provide a water quality benefit. This pond would provide additional reductions in discharge rates to downstream and would also provide some water quality benefit to downstream receiving waters. The dam would be approximately 40 feet wide and 10 feet high. The principal outlet of the new detention pond would consist of an 8-inch orifice at the elevation of the constructed wetlands (elevation 1031.00) and a multi-stage weir opening in a concrete box set in the pond. This would allow runoff from the pond to drain under the dam via a single 60-inch reinforced concrete pipe. Approximately 130 linear feet of the existing stream would be filled and rerouted to a new spillway.

The detention pond would reduce the peak discharge rates between 14% and 22% of existing flow rates. Normal water depth would be approximately 3 feet. During 100-year flood events, water depth could rise to approximately elevation 1040, or about 13 feet deep.

Rebuilding the pond will provide for added flood storage, and prevent downstream erosion. Following construction, disturbed areas will be planted with native plant species to provide wetland functions and to stabilize the site. A complete description of the proposed restoration project is included in the attached Environmental Assessment.

2. NEED FOR PROPOSED ACTION: Currently, stormwater flows result in continued erosion of the facility negatively impacting peak flows and water quality downstream. Creeks in the Atlanta metropolitan area have been impacted by increased stormwater runoff due to increasing urbanization and impervious surfaces. Without repair of degraded facilities, such as this one combined with other actions to ameliorate stormwater peak flows, there would be further increases in downstream flows, erosive energy and reduced water quality and habitat quality for aquatic species.

3. ALTERNATIVES CONSIDERED: Alternatives considered to the proposed action include:

- a. The No Action Alternative would maintain current conditions. No work would be performed to address the eroding and deteriorating dam and spillway problems that are currently occurring. Erosion would continue, eventually resulting in a complete breach of the dam. At that point the pond would no longer provide a stormwater detention function.
- b. Removal of the ponds completely by removal of the existing dams and letting the area function as a stream. However, without extensive restoration and bank protection this option would result in increased downstream flooding and would likely also increase erosion of the channel.
- c. Reconstruction of the dams to their previous configuration which would include a wet pond and immediately downstream a dry detention pond. However, this alternative would seek to reconstruct the dams utilizing construction standards more consistent with those currently accepted for construction of earthen dams. This would include designing a principal spillway that can accommodate up to the 100-year design storm and increasing the width of the dams such that the side slopes are established at a gentler slope than those currently on site. This would allow the dams to be reconstructed utilizing slopes and outlet devices more consistent with current construction practices which would result in a safer dam. However, due to the fact that the larger dams would occupy more space than the existing dams, it has been shown that an increase in discharge rates would likely result for the more frequent storm events (i.e. 1-year, 2-year, and 5-year events) due to less space available for flood storage. This in turn could result in additional channel erosion.
- d. Removal of the existing dams and constructing a single dam at the location of the existing detention pond that would hold a permanent pool of water. This new wet pond would be larger than the existing pond. Additionally, this pond would also be able to provide some detention reducing discharge rates on downstream properties and would also provide a water quality benefit to downstream receiving waters. The principal differences in function of the proposed action and this alternative would be that this alternative would have a permanent pool of water which would reduce peak discharge rates by a markedly lesser amount. The greater detention capacity of the proposed alternative would provide greater environmental benefits due to reduced storm flows compared to Alternative 5.

4. FACTORS CONSIDERED IN DETERMINING THAT NO ENVIRONMENTAL IMPACT STATEMENT IS REQUIRED:

The recommended action would result in no significant adverse environmental impacts and would result in primarily long-term beneficial impacts. The project has been coordinated with the U.S. Fish and Wildlife Service and they support the goals of the project and the measures being taken. They have determined that the proposed action would likely not affect any federally-listed endangered or threatened species or their critical habitat.

All environmental impacts resulting from the project would be minor or negligible. There would be no significant adverse direct, indirect or cumulative impacts to native vegetation and wildlife

habitat, water quality, fish and other aquatic organisms, geology and soils, traffic, noise, or public safety. There would be no significant potential for contamination due to handling or disposal of hazardous, toxic or radioactive materials. There would be no impacts to cultural or historic resources. There would be long-term beneficial impacts due to the project resulting from improved stormwater detention and reduced flooding and erosion downstream of the project. The project would be in compliance with all applicable laws and regulations.

5. CONCLUSION: An evaluation by the Environmental Assessment describing the proposed rehabilitation of Swaybranch Drive Dam and Detention Pond shows that the proposed actions would have no significant impact on the human environment. Preparation of an Environmental Impact Statement is not warranted.

Date: _____

Steven J. Roemhildt
Colonel, U.S. Army Corps of Engineers
Mobile District