DRAFT ENVIRONMENTAL ASSESSMENT McDANIEL BRANCH STORMWATER CAPACITY IMPROVEMENT PROJECT, ATLANTA, FULTON COUNTY, GEORGIA

Prepared by

U.S. Army Corps of Engineers, Mobile District
Planning and Environmental Division
Environment and Resources Branch
Inland Environment Team

March 2012

TABLE OF CONTENTS

1. INTRODUCTION 4

1.1 General: 4
1.2 Location: 4
1.3 Proposed Action: 4
1.4 Purpose and Need for the Proposed Action: 6
1.5 Scope: 6
1.6 Public Involvement: 9
1.7 Authority: 9

2. ENVIRONMENTAL SETTING WITHOUT THE PROJECT 9

2.1 Water Quality: 10
2.2 Stormwater: 11
2.3 Groundwater: 11
2.4 Floodplains: 11
2.5 Wetlands and Waters: 12
2.6 Water Supply: 12
2.7 Fish and Fishery Resources: 12
2.8 Endangered, Threatened or Protected Species: 12
2.9 Wildlife Resources and Habitat: 12
2.10 Land Use: 13
2.11 Geology and Soils: 14
2.12 Historic and Archeological Resources: 14
2.13 Socioeconomic Conditions: 14
2.14 Traffic: 15
2.15 Noise: 15
2.16 Air Quality: 15
2.17 Aesthetics: 16
2.18 Hazardous and Toxic Materials: 16
2.19 Public Safety: 16
2.20 Protection of Children: 16

3. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES: 16

3.1 Proposed Action: 16
3.2 Alternatives To The Proposed Action: 18
3.3 Alternative 1 ("No Action" Alternative): 19
3.4 Alternative 2 (Fewer Ponds): 19

4. ENVIRONMENTAL IMPACTS: 19

4.1 Water Quality: 19
4.2 Stormwater: 20
4.3 Groundwater: 20
4.4 Floodplains: 20
4.5 Wetlands and Water: 20
4.6 Water Supply: 20
4.7 Fish and Fishery Resources: 21
4.8 Endangered, Threatened or Protected Species: 21
4.9 Wildlife Resources and Habitat: 21
4.10 Land Use: 22
4.11 Geology and Soils: 22

4.12 HISTORIC AND ARCHEOLOGICAL RESOURCES: 22
4.13 SOCIOECONOMIC CONDITIONS:.....22
4.14 TRAFFIC:.....23
4.15 NOISE: 23
4.16 AIR QUALITY:.....23
4.17 AESTHETICS:.....24
4.18 HAZARDOUS AND TOXIC MATERIALS:.....24
4.19 PUBLIC SAFETY: 24
4.20 PROTECTION OF CHILDREN:.....24
4.21 CUMULATIVE IMPACT:.....25

5. IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES WHICH WOULD BE INVOLVED SHOULD THE PROPOSED ACTION BE IMPLEMENTED: 25

6. ADVERSE ENVIRONMENTAL IMPACTS WHICH CANNOT BE AVOIDED: 25

7. THE RELATIONSHIP BETWEEN SHORT-TERM USES OF MAN'S ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY: 26

8. COORDINATION: 26

9. REFERENCES CITED: 26

Appendix A: McDaniel Branch Stormwater Detention Facility Plan Drawings...……**28**
Appendix B: Coordination.……...…….....**36**

Figures

1. Location of Project in Atlanta, Georgia…….……..5
2. Topographic Map of Project Area…….……...6
3. Current On-site View of McDaniel Branch Site ……..……...……..…...…… 11

Tables

1. U.S. Fish and Wildlife Service Listed Species in Fulton County……..13
2. Land Use and Impervious Surfaces in the McDaniel Branch Watershed……..14
3. Selected Demographic Data for Fulton County compared to State of GA……15
4. Summary of Estimated Design Surface Elevations and Water Surface Elevations……...17
5. Typical Noise Generating Sources in Typical Urban Environments…….23

1. INTRODUCTION:

1.1 General: This Environmental Assessment (EA) was prepared to evaluate the impacts of a project proposed by the U.S. Army Corps of Engineers (Corps) in partnership with the City of Atlanta, Fulton County, Georgia (Atlanta) to construct a series of five interconnected detention ponds on an approximately 5.5-acre parcel. The project would be designed and constructed in cooperation with the Corps, Atlanta, and their contractors. The EA evaluates the direct, secondary, and cumulative impacts to the natural and human environments associated with the proposed project compared to other reasonable alternatives, including the "No Action" alternative.

In response to growth and development in metropolitan Atlanta over the last 25 years, local governments have been provided with guidance on improving stormwater control and mitigating negative impacts of development to watersheds. As a result, Atlanta is taking steps towards prioritizing, designing, and constructing watershed improvement projects for substantially impacted watersheds. The following description summarizes in broad terms these efforts for the McDaniel Branch (also known as the North Fork of the South River) watershed, which is a tributary to the South River.

Changes in land use have led to adverse impacts on watersheds including McDaniel Branch. Multiple watershed management strategies have been implemented throughout Atlanta and other nearby urban governmental entities to protect water quality and stream conditions, including implementation of protective ordinances, inspections and reviews for new and redevelopment, enforcement actions, long-term monitoring, greenway/preservation initiatives, and updated stormwater design requirements. In addition to these implementation efforts, Atlanta recognizes that watershed improvements are also needed to address the existing deficiencies in stream stability and outdated or ineffective stormwater infrastructure. Like many streams in Atlanta, McDaniel Branch has experienced severe bank erosion and sediment loading due to high stormwater flows associated with heavily developed areas. The stream's deviation from its natural state has altered water quality and instream habitat, thus compromising the aquatic ecosystem. McDaniel Branch is a primary tributary to the South River, which is 303(d)-listed for fecal coliform and impacted biota.

1.2 Location: The project is located in Fulton County, Georgia in Atlanta, bordered to the east by McDaniel Branch and to the west by Interstate Highway 75/85. McDaniel Branch is a tributary to the South River in the Ocmulgee River Basin. The South River drains southeast to Lake Jackson and ultimately into the Ocmulgee River. The Ocmulgee River, located in the larger Altamaha River Basin, merges with the Oconee River to become the Altamaha River, which flows to the Atlantic Ocean just north of Brunswick near the Florida state line. The site location is shown in Figures 1 and 2.

1.3 Proposed Action: The Proposed Action was chosen after considering two action alternatives and the "no action" alternative. The bases of selection of the proposed plan were level of environmental impact, cost, practicability of implementation and fulfillment of project purpose. The Proposed Action consists of construction of a series of interconnected detention basins which will be further described in the body of this EA.

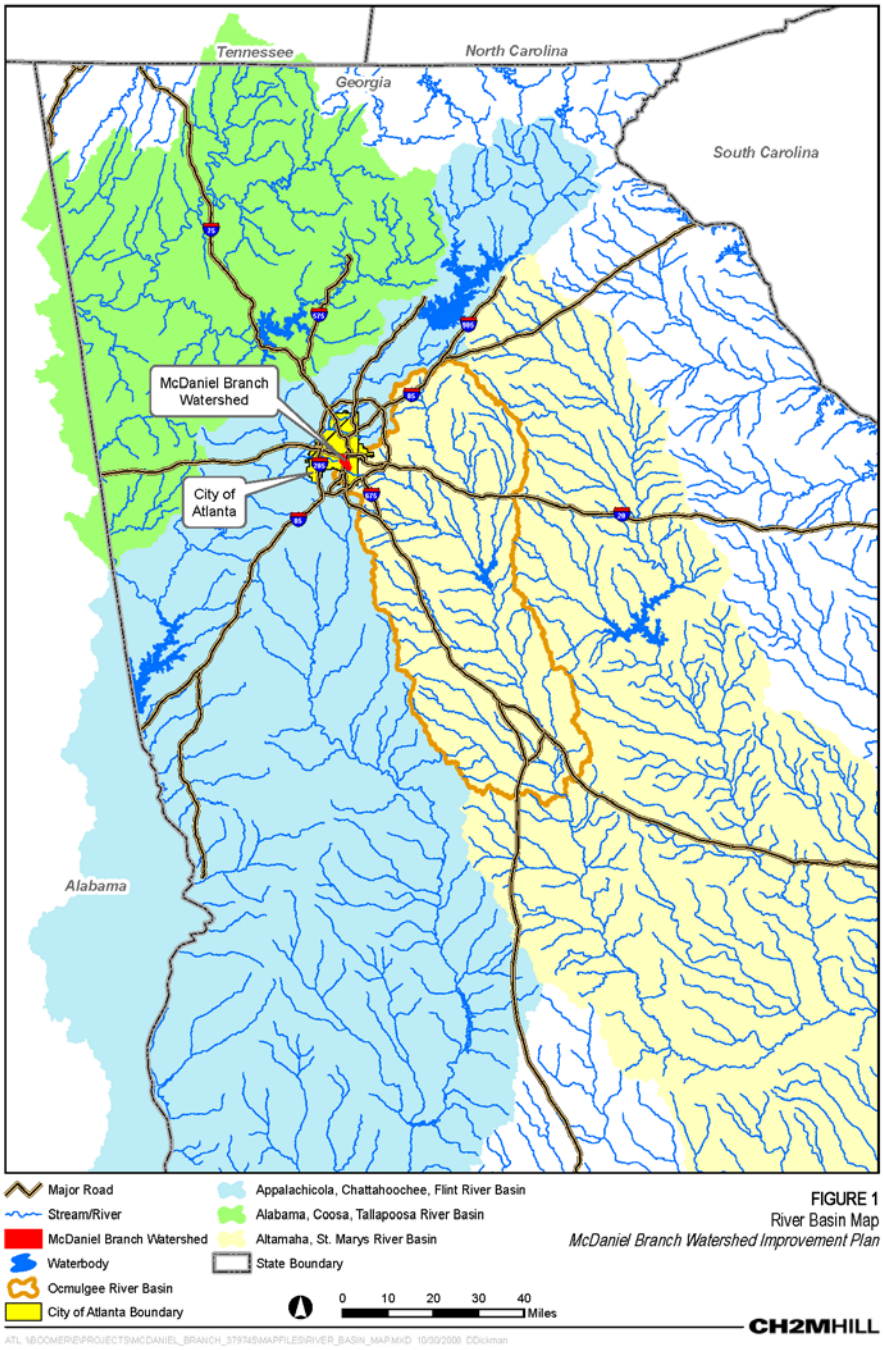


Figure 1. Location of Project in Atlanta, Georgia

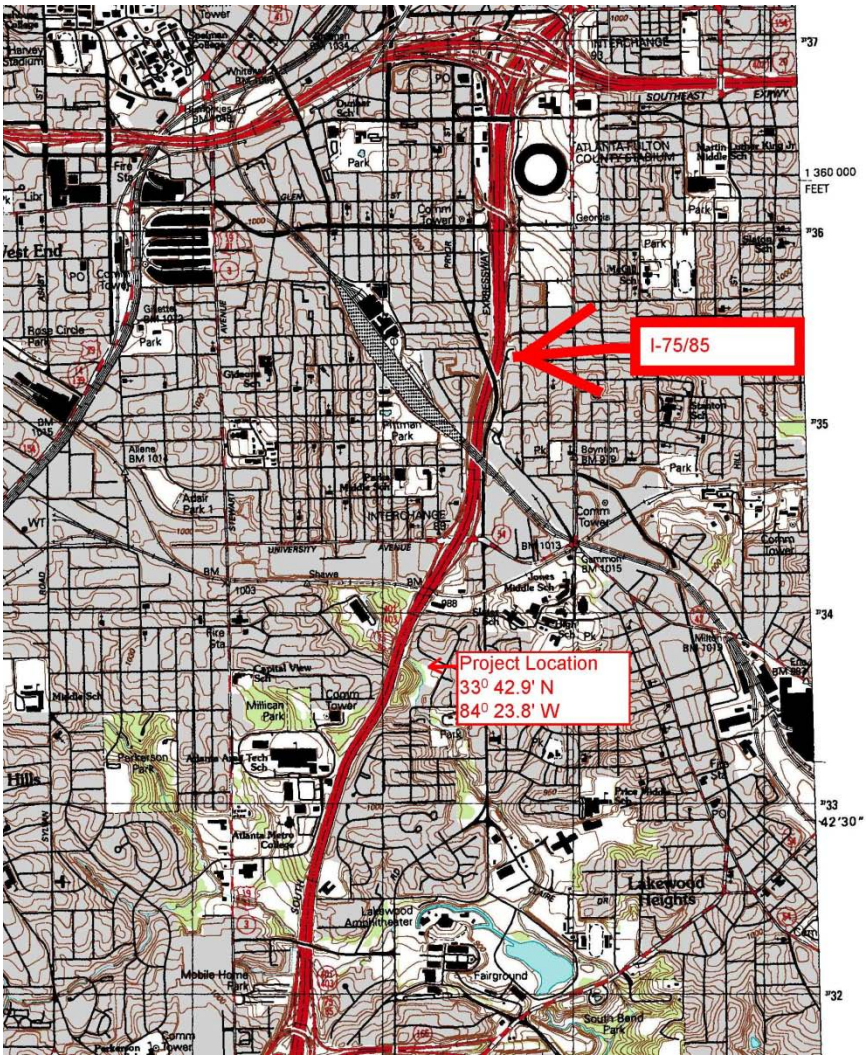


Figure 2. Topographic Map of Project Area

1.4 Purpose and Need for the Proposed Action: The purpose of the Proposed Action is to provide improved stormwater detention capacity, thereby reducing peak storm flows downstream of the project. The project is one of several actions needed that cumulatively would reduce the high levels of urban runoff into the South River and provide improved water quality and aquatic habitat. Currently, peak stormwater flows result in high levels of urban contaminants entering the stream, and erode streambed and banks downstream. Creeks in the Atlanta metropolitan area have been impacted by increased stormwater runoff due to increasing urbanization and impervious surfaces. Without construction of new facilities such as the one proposed, repair of degraded facilities and 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 part 230, Engineer Regulation (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 evaluates the effects of construction of a series of detention ponds on an upland parcel of land in Atlanta, 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 socio-economic 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.

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 biological communities of the site of the project and immediate downstream areas. 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.

- 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 the City 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. Sea level potentially changes as a result of climate change and Corps projects can be impacted as a consequence. In accordance with the guidance provided in the Corps' Engineer Circular (EC) 1165-2-212 (USACE 2011), the first step in determining impacts is to decide whether the project would occur in a coastal/tidal/estuarine zone or in an area bordering such zones. The McDaniel Branch 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 with a stated 30-day comment period that will end April 2, 2012. Paper copies are available upon request.

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 alternatively, 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 April 2, 2012. 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 (Atlanta). Federal funding for the project is authorized 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.

2. ENVIRONMENTAL SETTING WITHOUT THE PROJECT:

General: The project site is located in southern Fulton County, Georgia in Atlanta, bordered to the east by McDaniel Branch and to the west by Interstate Highway 75/85, approximately two miles south of central Atlanta. Atlanta has a population of approximately 420,000. 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 2010 was estimated to be 1,033,756, while the 28-county metropolitan area had a population estimated to be over 5.2 million.

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.

According to the Soil Survey of Fulton County, Georgia (NRCS 2008), the county has a temperate southern climate with distinct changes of seasons. Summers are long and hot, with an average daily maximum of 87.9° F and a record maximum of 105° F. Winters are short and cool compared to more northern states but occasional prolonged freezing weather occurs. The winter average daily minimum temperature is 35.4° F and the record low is -8° F. Despite the relatively mild winter weather, several storms consisting of light snow or wintry precipitation usually occur annually, averaging about 2.4 inches total per year. Rainfall is fairly well distributed throughout the year. Thunderstorms occur about 49 days each year with the maximum occuring 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 (Figure 3) is approximately 5.5 acres in size in a densely urbanized setting and has a watershed comprising approximately 200 acres. The watershed drains to McDaniel Branch which in turn drains to the South River. Atlanta acquired the property as part of its Greenway Acquisition Project to purchase and protect riparian corridors within the City. The site was previously used for residential housing with an apartment complex and related amenities covering much of the property. The apartments were demolished in the 1990's and the property has remained undeveloped since. Currently, a number of sanitary sewer lines as well as a number of storm sewer lines criss-cross the property. The sanitary sewer lines continue through the property while the storm sewer lines transport rainfall from the local streets and have outfall structures that empty into McDaniel Branch.

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

2.1 Water Quality: There are no streams, wetlands or other waters within the confines of the property. However, as described above, McDaniel Branch is adjacent to the property and receives runoff from it both directly and via storm sewer outfalls. The stream is listed in Georgia's final 2010 305(b)/303(d) List of Impaired Waters (GAEPD, 2010) for violating its fishing use classification for fecal coliform contamination. It receives a large amount of non-point source urban runoff both upstream and downstream of the project site and is therefore considered to have fairly poor water quality, likely containing, in addition to fecal coliform, bacteria, pesticides, fertilizers, and other organic materials originating from landscaped and paved areas.

Figure 3. Current On-site View of McDaniel Branch Site

2.2 Stormwater: McDaniel Branch 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 directly contributes 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 project site is located partially within Zone AE defined as the one-percent flood risk zone and partially

in Zone X, defined as areas outside the one-percent flood risk zone. The area designated AE is located adjacent and along McDaniel Branch.

2.5 Wetlands and Waters: A wetland delineation of the area and access points was performed by a Corps contractor in accordance with the Corps of Engineers 1987 Wetland Delineation Manual (Corps, 1987). That delineation concluded that no wetlands or other waters were found within the project boundaries. However, as previously discussed, McDaniel Branch is located adjacent to the site and receives runoff from it. The McDaniel Branch watershed is located entirely within the metropolitan area of Atlanta and encompasses approximately 3.2 square miles. Historical channel alterations and sparse natural riparian vegetation are common throughout the riparian zone. The combination of channel alterations, urbanization and associated construction of impervious surfaces has resulted in heightened storm flows and streambank erosion and sedimentation. The stream was sampled in 2007, and results suggest that, along with aquatic communities, habitat is compromised due to a lack of habitat heterogeneity (i.e. riffles and pools). No wetlands are located along the creek banks at the project site.

2.6 Water Supply: There is no direct use of the property for water supply and no downstream communities on McDaniel Branch depend on the small watershed of the project site for water supply.

2.7 Fish and Fishery Resources: It is generally unknown what, if any, fish occur in McDaniel Branch near the project site. Due to the degraded condition of the urban stream, it is unlikely that fish, other than those highly tolerant to human-induced disturbance, such as small sunfish would be found.

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 mollusk species and the fish species require perennial water flow to provide adequate habitat. All of the listed aquatic species require relatively clean flowing water with sandy, gravelly or rocky substrates. McDaniel Branch does not provide such habitat for any of the species because of its impacted condition and heavy sedimentation. Therefore, surveys for these species were not conducted. The proposed action was coordinated with the FWS as noted in Section 4.8.

2.9 Wildlife Resources and Habitat: The project area has a mixture of second growth scrub and forest habitat in a riparian setting. This provides potentially 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*.), box elder (*Acer negundo*), black cherry (*Prunus serotina*), kudzu (*Pueraria montera*), Japanese honeysuckle (*Lonicera japonica*), greenbriar (*Smilax spp*.), Chinese privet (*Ligustrum sinese*) and tall

goldenrod (*Solidago altissima*). Prior to its current human dominated use, the area undoubtedly provided ample habitat for a variety of large animals such as white-tailed deer (*Odocoileus virginianus*) and wild turkey (*Meleagris gallopavo)*. Currently, due to dense urbanization in the surrounding areas, 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 (*Sylvilagus* spp.), raccoon

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

Species	**Federal Status**	**Habitat**	**Threats**
		Invertebrates	
Gulf moccasinshell mussel *Medionidus pencillatus*	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 *Hamiota subangulata*	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.
		Fishes	
Cherokee darter *Etheostoma scotti*	Threat-ened	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

(*Procyon lotor*), opossum (*Didelphis virginiana*) and gray squirrel (*Sciurus carolinensis*), as well as other non-game birds, waterfowl, 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 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. The highly disturbed condition of the site combined with ongoing human disturbance and widespread presence of invasive vegetation probably severely limits habitat for most species.

2.10 Land Use: Land use in the local area is dominated by residential, industrial and commercial development, interspersed with small areas of forest and parks. The project site is dominated second-growth forest previously described. Agriculture is 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. Land use in the McDaniel Branch Watershed is summarized in Table 2.

Table 2. Land Use and Impervious surfaces in the McDaniel Branch Watershed

Land Use	Percent of Watershed	Impervious Percentage of Land Use
Commercial	12%	8%
Forest/Parks	7%	1%
Residential	47%	18%
Industrial/Commercial	17%	12%
Urban	<1%	<1%
Transportation/Communication/ Utilities	2%	<1%
Other	14%	7%
Total	**100%**	**46%**

Source: Atlanta Regional Commission, 2007

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 (University of Georgia, Department of Geology 2012).

The Natural Resources Conservation Service describes the project site as having 100% Urban Soil (NRCS2008). That soil classification is given for sites that have been cut, filled and shaped by previous soil disturbance.

2.12 Historic and Archeological Resources: A search of Georgia's Natural, Archaeological, 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, general construction and subsequent demolition of an apartment complex. The Mobile District has determined that there would be no historic properties affected by the proposed action as per 36 CFR 800.4(d)(1). The project was coordinated with the State Historic Preservation Officer as noted in Section 4.12.

2.13 Socioeconomic Conditions: Key demographic facts for Fulton County and the State of Georgia are derived from the Bureau of the Census (USDOC) and presented in Table 3. The

county has a diversified economy including manufacturing, retail sales, transportation, professional services, and government. The county serves as the State Capital, has numerous

Table 3. 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%

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 arteries in the area include Interstate Highways I-75/I-85 and I-285 and numerous city thoroughfares. 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 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 decibels (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 (USEPA 2011) 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 Conformity Rule applies to Federal actions. National ambient air quality standards exist for six 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 the project site typically experience light vehicular traffic; however the area's air quality is affected by cumulative population and accompanying very high traffic densities both locally and throughout the metropolitan area.

2.17 Aesthetics: The project site with its wooded area provides a degree of greenspace in the urban environment that most people would consider having some aesthetic benefit. However, the property has been highly disturbed by past development and is degraded in terms of the natural landscape and aesthetically. Aesthetics is a subjective determination, and for that reason there is likely a 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 US Infrastructure Inc. dated February 2006. No hazardous materials are known to exist currently or in the past at the site.

2.19 Public Safety: Although no specific safety issues are known at the site, persons passing through the site or otherwise trespassing are subject to various incidental hazards. Those include the possibility of falls, tripping and entanglement in the vegetation, and associated cuts and scrapes. 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 AND ALTERNATIVES:

3.1 Proposed Action: The goal of the proposed work is to provide stormwater detention by construction of a series of detention ponds on the site. This would retain runoff from the local watershed and reduce peak storm flows downstream. The proposed plan was selected based on

cost and practicability of implementation and also the degree to which the detention ponds would provide stormwater detention.

The proposed action would consist of excavating and grading five interconnected ponds as shown in the plans included as Appendix A. One of the ponds would include a planted wetland as part of the design. Permanent pool depths were designed to be 3 feet deep or less and pond slopes were maintained at 3:1 or greater. Therefore, in accordance with engineering design and safety criteria, safety benches and fencing would not be required. Aquatic benches were includedto provide wildlife habitat, provide aesthetics, and assist with pollutant removal. Forebays were not considered feasible because of site constraints. However, rock filter rings were incorporated at each outlet for pipes entering the ponds.

Trash screens were incorporated into the design of the diversion structure to assist in removing trash and debris before flow from the 66-inch pipe enters the ponds. The proposed project is designed to treat runoff from the 1.2-inch storm event which is the 85th percentile event based on hydrologic modeling. For comparison, the 2-, 5-, and 10-year storm events have precipitation

Table 4. Summary of Estimated Design Discharges and Water Surface Elevations

Feature	Overflow Spillway Elevation (feet)	Top of Berm Elevation (feet)	1.2 Inch Event		100-Year Event	
			Peak Outflow (cfs)	Maximum Water Surface Elevation (feet)	Peak Outflow (cfs)	Maximum Water Surface Elevation (feet)
Pond 1	914.0	915.0	15	914.3	78	914.8
Pond 2	914.0	919.0	19	914.4	108	917.8
Pond 3	914.0	917.0	15	914.4	111	916.3
Wetland 4	913.2	914.0	13	913.4	75	913.9
Pond 5	910.0	911.0	15	910.3	111	911.0

totals of 4.3 inches, 5.5 inches, and 6.2 inches of rainfall, respectively. A summary of pond design and elevations and discharges is provided in Table 4.

A re-vegetation plan would be implemented and native plant species selected for all disturbed areas depending on elevation zones and hydrologic conditions around the ponds. While pond number four is specified as a wetland due to the extent of area that would support wetland vegetation, wetland vegetation would be planted around the edge of the other ponds as well. Wetland areas would be divided into four zones depending on water depth/hydrology and plants selected accordingly. For example, in Zone 1 (open water areas) no plants would be planted. In Zone 2 species such as Louisiana iris (*Iris louisiana*), Soft rush (*Juncus effuses*) and Softstem bulrush (*Scirpus validus*) would be planted. In Zone 3 species such as Cardinal flower (*Lobelia cardinalis*), Cinnamon Fern (*Osmunda cinnamomea*) and Royal Fern (*O. regalis*) would be planted. In Zone 4 species such as Joe Pye Weed (*Eupatorium fistolosum*), Yellow Indian Grass (*Sorgham nutans*) and Purple Lovegrass (*Eragrostis spectabilis*) would be planted. Above the wetland areas, upland vegetation would be planted and include species such as Red Maple (*Acer rubrum*), Water Oak (*Quercus nigra*), Dogwood (*Cornus florida*), Beautyberry (*Callicarpa amercana*) and Winged Sumac (*Rhus coppalinum*) representing canopy, understory and shrub

strata. The plants described are given as examples; a total of approximately 40 species would be planted. The plantings would complement the tree save policy implemented by Atlanta and the maximum number of existing trees would be protected as possible during construction.

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 kudzu, Japanese honeysuckle and Chinese privet, which are common on the property, 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. For low growing specimens such as kudzu, where cut-and-treat is not practical, blanket spraying with Mesulfuron methyl (Escort®) would be applied. In areas where spray contact with water is inevitable, foliar spray application of EPA-approved aquatic formulations (aquatic glyphosate or triclopyr amine (Garlon® 3A))would be used. 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.

3.2 Alternatives To The Proposed Action: Several alternative strategies were considered that would accomplish the goal of providing stormwater detention and ameliorating 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.

A search for alternative locations for the proposed action was considered but not carried forward for further evaluation for the following reasons: (1) the watershed is highly urbanized and undeveloped real estate is scarce and not cost effective for the construction of a detention basin; and (2) Atlanta owns the proposed site as part of its Greenway program, it has been previously disturbed and it is in the riparian corridor of the creek making it a logical choice for a detention area.

3.3 Alternative 1 ("No Action" Alternative): The Council on Environmental Quality (CEQ) regulations require analysis of the "no action" alternative (40 C.F.R. § 1502.14). "No Action" as referred to in this EA, would mean that no work would be performed to address the high levels of stormwater runoff from impervious surfaces in the watershed. No reduction in storm flows would be achieved. Erosion would continue to occur downstream in McDaniel Branch with high sediment loads eventually reaching receiving waters. Water quality and aquatic habitat would continue to be negatively impacted at current levels or worsen with time. Due to these reasons, Alternative 1 (No Action) was not selected as a viable alternative.

3.4 Alternative 2 (Fewer Ponds): Alternative 2 would consist of design and construction of anywhere from a single larger detention basin up to four larger interconnected basins as opposed to the proposed five-basin alternative. Due to existing utilities on the project site and resulting space limitation, larger detention basins could not be constructed. This required consideration of more and smaller detention basins built to fit between the existing sanitary and storm sewer lines. Relocation of the existing utilities was discounted because of the large difference in expense and scope of the overall project compared to those for the proposed alternative. Thus, Alternative 2 was not selected as a viable alternative.

4. 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.

4.1 Water Quality: The proposed project could 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. 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. A stream buffer variance application along with an erosion and sedimentation control plan would be submitted to the Georgia Environmental Protection Division. All State and local water quality standards would be met and all appropriate regulations and BMP's strictly followed. Revegetation would be performed immediately following construction to reduce potential erosion from the site. Any adverse impacts would be expected to be minor and temporary.

There would be beneficial long-term impacts associated with construction of the proposed action. Improved stormwater detention by passing water through wetland/vegetated ponds would clean the water to some degree prior to entering the creek and stabilize soils and creekbanks and mean less total sediment in the downstream waters.

The No Action Alternative would maintain the current condition. This would result in continued turbid conditions and the continual degradation of water quality.

Impacts for Alternative 2 would be the same as for the proposed action.

4.2 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 providing detention capacity, peak stormwater flows could be reduced.

The No Action alternative would maintain the current condition of lack of detention capacity and stormwaters dumping directly into McDaniel Branch. This would result in slowly increasing flows downstream.

Impacts for Alternative 2 would be the same as for the proposed action.

4.3 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.

4.4 Floodplains: The project would occur partially within the designated floodplain. However, there would be no impacts on floodplains by any alternative because there would be no net discharge of fill material into the floodplain.

4.5 Wetlands and Water: No wetlands are present on the project site; therefore, no adverse 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.

There would be no direct impacts to McDaniel Branch. No fill materials would be placed in the creek or other waters. Therefore a Section 404(b)(1) evaluation is not required for the project.

The No Action alternative would result in continued impacts to the creek from the peak storm flows and associated erosion and sedimentation downstream. With any further construction of impervious surfaces in the watershed, peak downstream flow would increase, exacerbating those problems.

Impacts for Alternative 2 would be the same as for the proposed action.

4.6 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 South River, Lake Jackson, and Ocmulgee River via this drain is minor, and in any event the construction of detention capacity would not alter the total volume of water entering McDaniel Branch. Therefore, neither the proposed action nor any of the alternatives would have an impact on water supply.

4.7 Fish and Fishery Resources: It is unknown if fish use McDaniel Branch as habitat. Any existing fish found are likely to be highly tolerant of human induced disturbances. Such fish, if they exist, would experience minor beneficial impacts by reduced peak flows and improved water quality.

The no action alternative would result in the continued impacted stream conditions and reduced habitat quality currently occurring.

Impacts for Alternative 2 would be the same as for the proposed action.

4.8 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 7, 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 McDaniel Branch 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."

4.9 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 destroyed 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 alterations including clearing and grading would represent a short-term loss of available habitat. Long term the area would see benefits due to removal of invasive species and replanting with native vegetation. 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 5.5 acres.

The No Action Alternative would have no immediate adverse impacts. It would result in the continued peak storm flows to McDaniel Branch with associated continual erosion of the streambanks, which would cause a loss of riparian habitat in the long-term.

Impacts for Alternative 2 would be the same as for the proposed action.

4.10 Land Use: None of the alternatives would result in impacts to current land use. The area is currently a green space belonging to Atlanta and would remain as such for any alternative. 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.

4.11 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 as an indirect consequence of reducing flashy peak flows via longer stormwater detention times. Riparian planting would also help to stabilize soils.

The No Action Alternative would have no immediate negative impacts such as those described. However, it would have none of the benefits and over the long term, past increases in peak flows would continue with continued erosion along the creek banks.
Impacts for Alternative 2 would be the same as for the proposed action.

4.12 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 his/her 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. By letter dated January 30, 2012, the SHPO concurred with the Corps' determination that there would be no historic properties affected by the proposed action or any other alternative (Appendix B).

4.13 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.

4.14 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 workers' 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.

4.15 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 5, along with expected noise levels at 25 and 50 feet from the source. The nearest residence is approximately 150 feet 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

Table 5. Typical Noise Generating Sources in Typical Urban Environments

Construction Phase	Equipment	Noise Level at 25 feet (dB	Noise Level at 50 feet (dB)
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

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.

4.16 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. Contractors working on the project would be required to comply with all Federal, State and local regulations regarding air quality including emissions and dust control and implement any required controls. 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.

Impacts for Alternative 2 would be the same as for the proposed action.

4.17 Aesthetics: The proposed work to construct detention basins on a previously impacted site would have no aesthetic impact. Downstream, there would likely be long-term beneficial impacts from improving the flashy nature of peak flows in McDaniel Branch. The reduction of erosion and sedimentation downstream would result in more stable, vegetated banks that would be an aesthetic improvement.

The No Action Alternative would result in continued high storm flows and deterioration of downstream banks and stream bed.

Impacts for Alternative 2 would be the same as for the proposed action.

4.18 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.

4.19 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. The ponds are designed to be at a depth with side slopes gentle enough as to not be a safety hazard, nor require fencing according to local code. None of the alternatives would result in increased safety hazards.

4.20 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.

4.21 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 construction of a stormwater detention facility would benefit the local community because it would reduce erosion and provide improved stormwater detention capacity. This would benefit areas downstream. The City of Atlanta has a streambank stabilization project in McDaniel Branch immediately downstream of the proposed project that is not related to the currently proposed project. 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. Because the direct adverse impacts associated with the project are minor and temporary, no adverse cumulative effects are expected from the proposed action.

In conclusion, the proposed action, as well as the other action alternatives and the No Action alternative, would have no more than minor direct, indirect or cumulative impacts on the environment.

5. 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.

6. ADVERSE ENVIRONMENTAL IMPACTS WHICH CANNOT BE AVOIDED:

In order to build the detention facility as proposed, the adverse impacts discussed in Section 4 cannot be avoided. Notably, the upland siteand its natural habitat would experience short-term adverse impacts in order to provide long term gain to the watershed. 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.

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

The project would construct a series of stormwater detention ponds, 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.

8. 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 in 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 was ongoing coordination with the FWS throughout the early planning phases of this project. As previously discussed the FWS Ft. Benning Field Office concurred with the project (See Section 5.8) via e-mail dated June 7, 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 McDaniel Branch 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." See Appendix B for copy of the e-mail.

Coordination with Georgia SHPO was completed on January 30, 2012, when they provided a letter concurring that the project would have no effect on archeological or historic resources (Appendix B).

9. REFERENCES CITED:

Atlanta Regional Commission. 2007. LandPro 2007 GIS database. http://www.atlantaregional.com

Federal Emergency Management Agency (FEMA). FEMA Map Service Center. http://www.msc.fema.gov. Accessed December 22, 2011.

Georgia Environmental Protection Division (GAEPD). 2010. *Final State 305(b)/303(d) Report.* Atlanta, Georgia.

Georgia Department of Natural Resources (GADNR). 2004. Georgia Rules and Regulations for Water Quality Control, 391-3-6-16. http://rules.sos.state.ga.us/docs/391/3/6/16.pdf

Natural Resource Conservation Service (NRCS). 2008. Soil Survey of Fulton County, Georgia

University of Georgia, Department of Geology. 2012. The Geology of Georgia. http://www.gly.uga.edu/railsback/GAGeology.html. Accessed February 7, 2012.

U.S. Army Corps of Engineers (USACE). 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. USAEWES Environmental Laboratory, Vicksburg, Mississippi.

U.S. Army Corps of Engineers (USACE). 1998. *Draft Environmental Impact Statement: Water Allocation for the Appalachicola-Chattahoochee-Flint (ACF) River Basin*. Mobile District.

U.S. Army Corps of Engineers (USACE). 2011. Water Resource Policies and Authorities, Incorporating Sea-level Change considerations in Civil Works Programs. Circular No. 1165-2-212. CECW-CE, Washington DC.

U.S. Department of Commerce, Bureau of the Census (USDOC) http://quickfacts.census.gov, Accessed April 20, 2011.

U.S. Department of Transportation. *Highway Construction Noise: Measurement, Prediction, and Mitigation*. 1977.

U.S. Environmental Protection Agency. (USEPA). 2007. Greenbook Nonattainment Areas for Criteria Pollutants. < http://www.epa.gov/oar/oaqps/greenbk> Accessed 27 April 2011.

U.S. Environmental Protection Agency. (USEPA). 2011. General Conformity Homepage. < http://www.epa.gov/air/genconform/index.html> Accessed 27 April 2011.

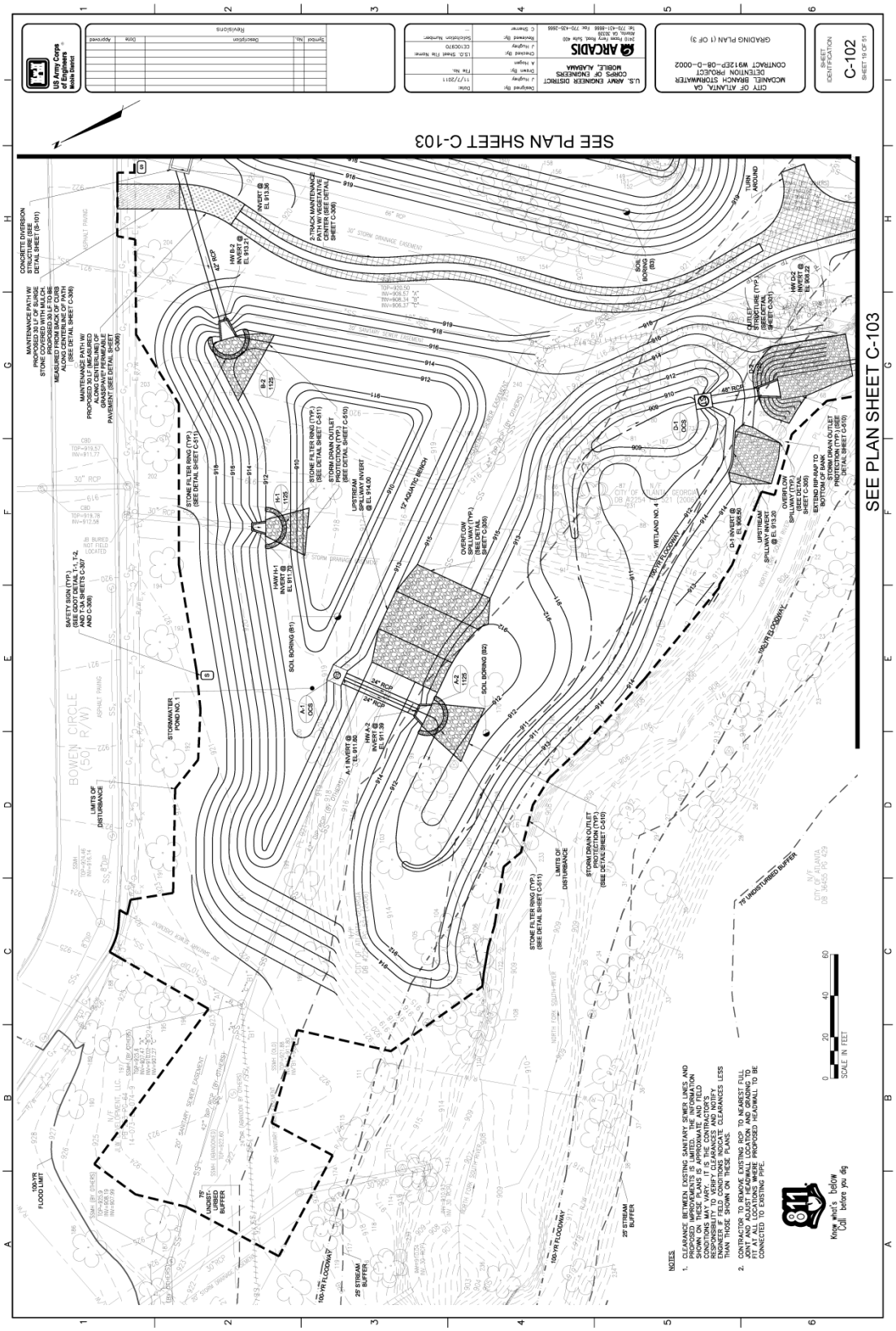
U.S. Fish and Wildlife Service. 2004. Species by County Report. www.fws.gov/endangered. Accessed 1 June 2011.

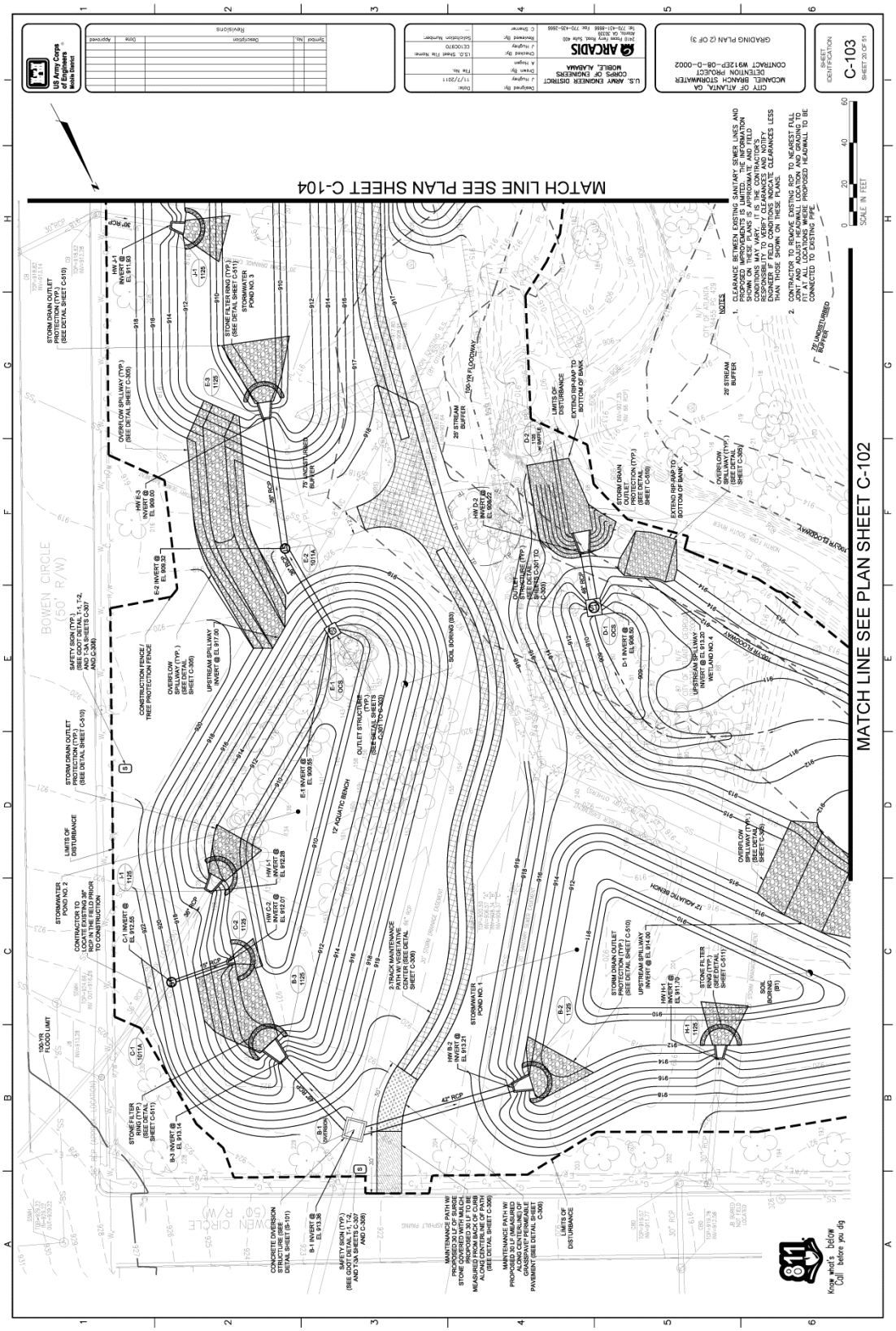
University of Georgia Museum of Natural History, 2010: Physiographic Regions of Georgia. http://naturalhistory.uga.edu/~gmnh/gawildlife/index.php?page=information/regions

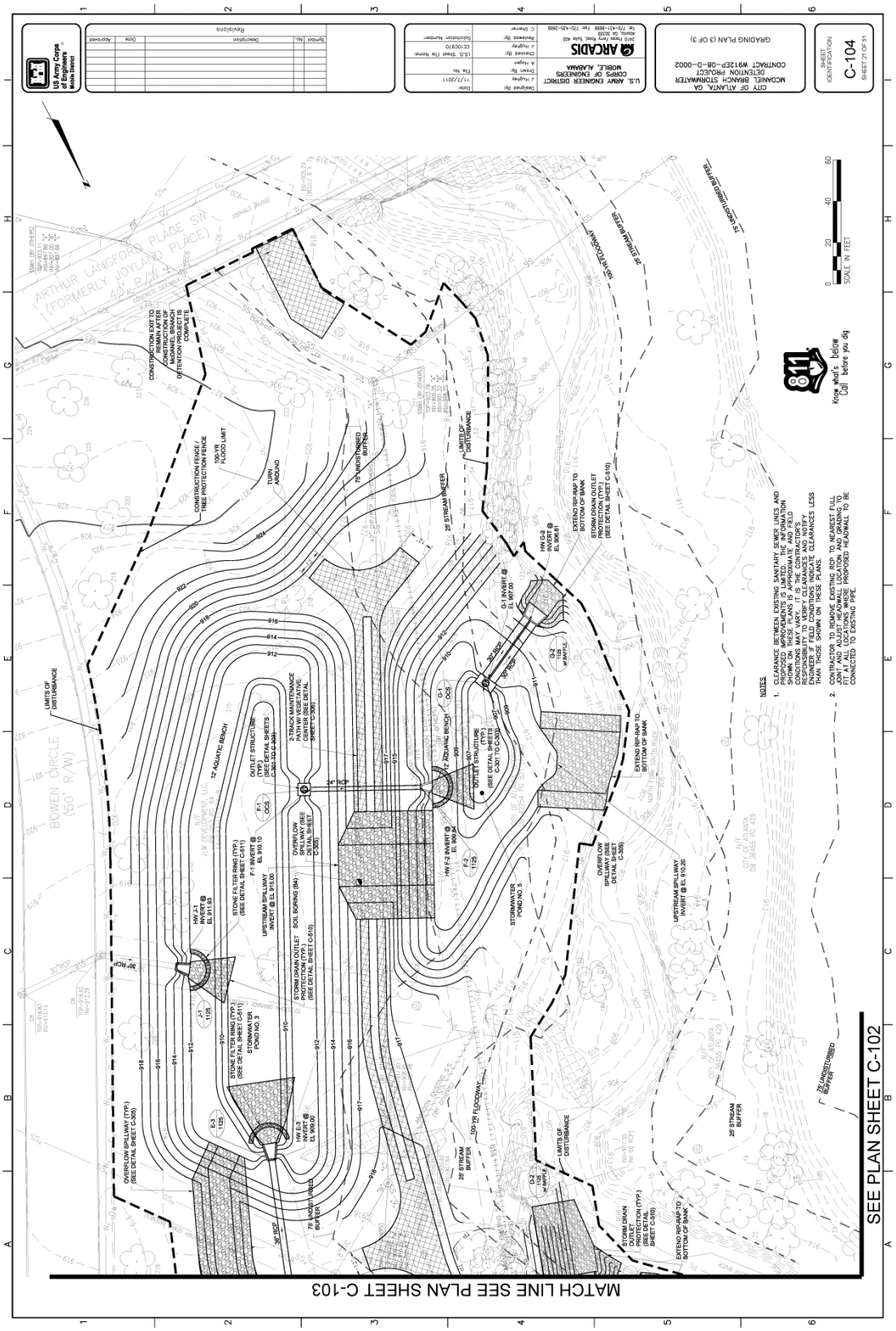
APPENDIX A

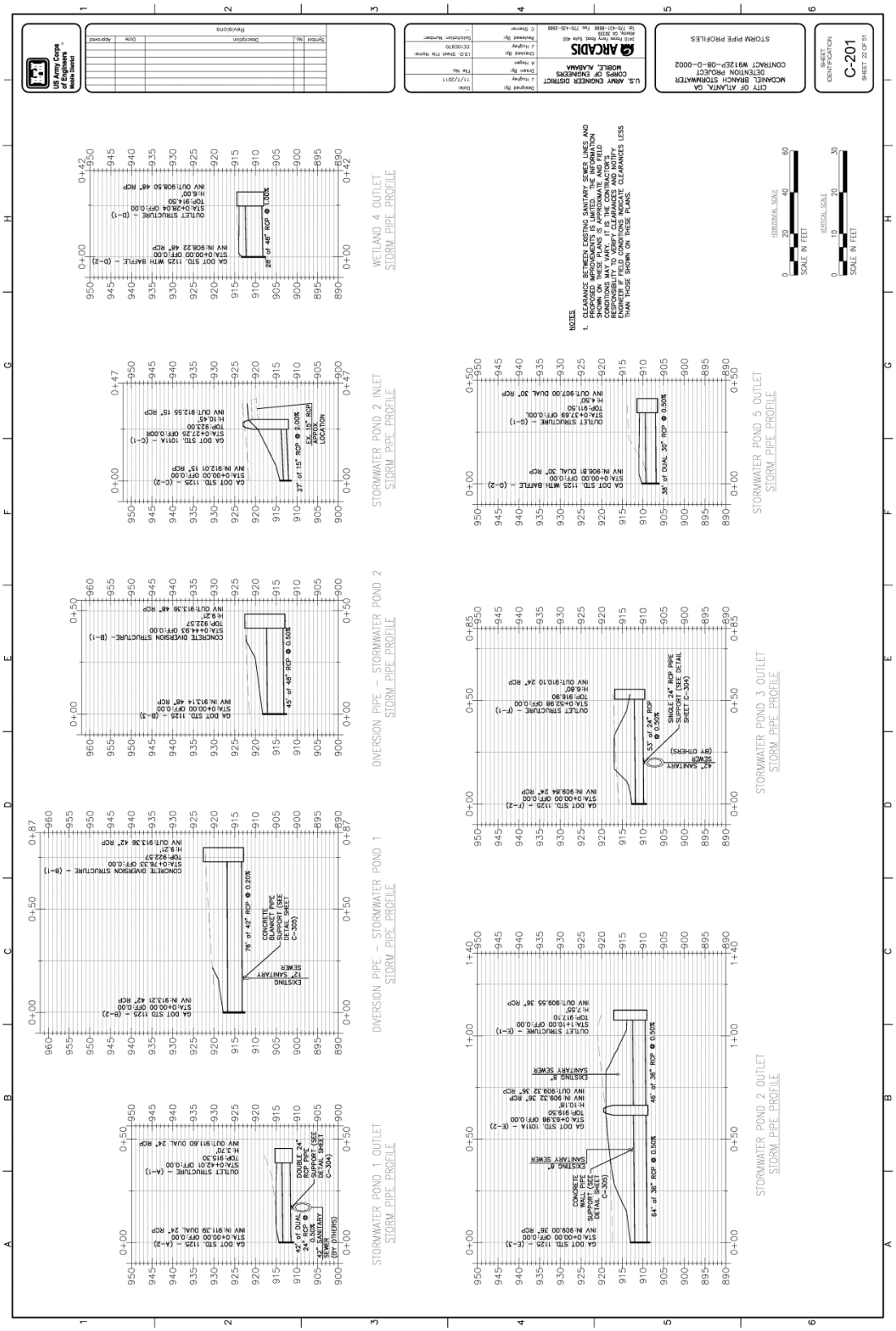
McDaniel Branch Stormwater Detention Facility Plan Drawings

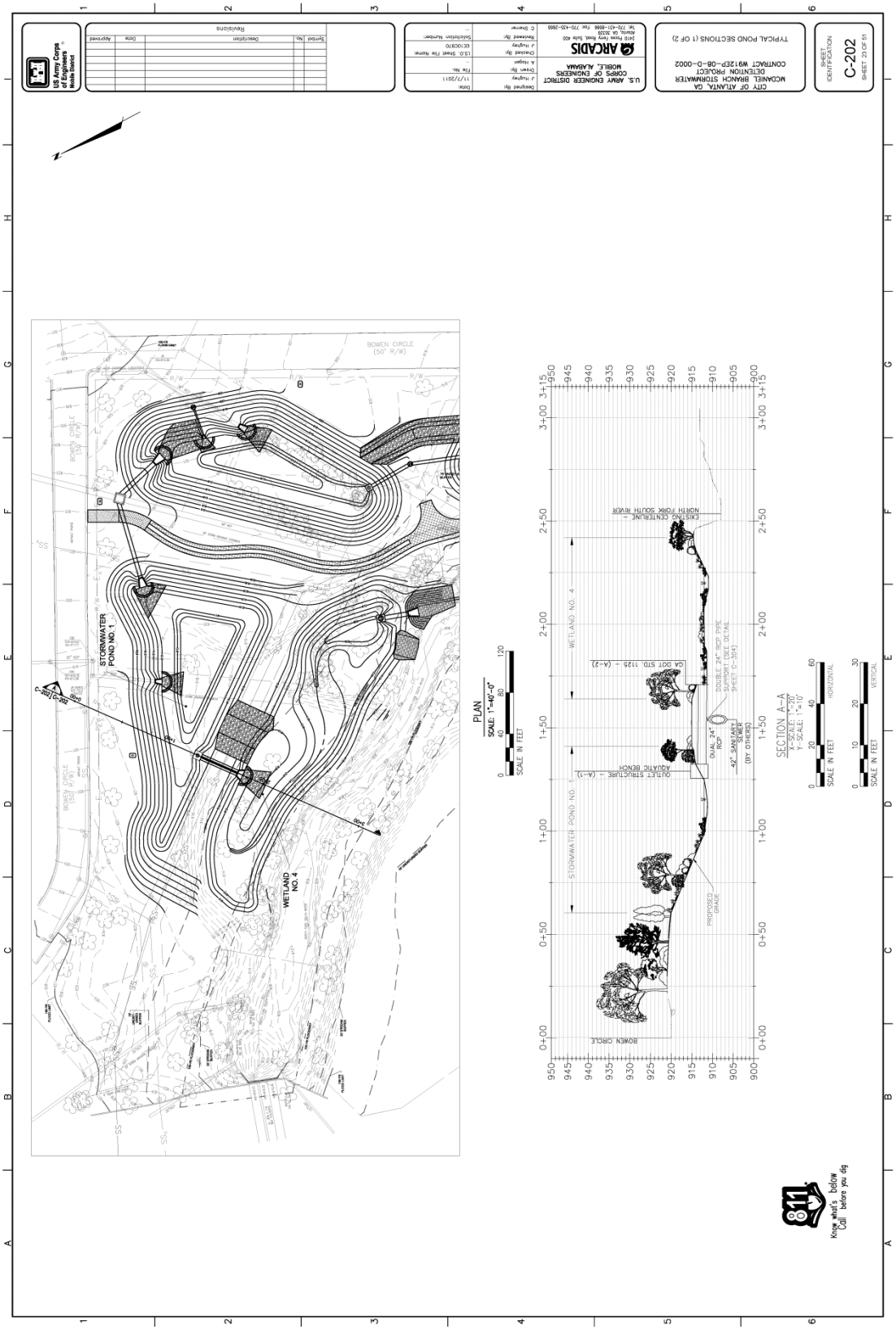
US Army Corps of Engineers
Mobile District
Symbol
Sym.
Description
Date
Approved
Revisions
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MOBILE, ALABAMA
ARCADIS
2810 Plaza Pkwy, Suite 400
Marietta, GA 30339
Tel: 770-431-8866 Fax: 770-436-2688
Designed By: J. Hughey
Drawn By: J. Hughey
Checked By: A. Hooper
Reviewed By: C. Sherrer
Date: 11/7/2011
File No.: CE10930
I.S.D. Sheet File Number:
Solicitation Number:
–
CITY OF ATLANTA, GA
MCCANDLL BRANCH STORMWATER
DETENTION PROJECT
CONTRACT W912EP-08-D-0002
OVERALL GRADING PLAN
SHEET IDENTIFICATION
C-101
SHEET 10 OF 51
0
50
100
150
SCALE IN FEET
C-104
C-103
C-102
C-001
ARTHUR LAMPSTON LOCK AND DAM
(FORMERLY CONTROL POINT)
BOWEN CIRCLE
BOWEN CIRCLE (1ST RUN)
INTERSTATE 285
(LANDRUM RUN)
LIMITS OF DISTURBANCE
STORMWATER POND NO. 3
STORMWATER POND NO. 2
STORMWATER POND NO. 1
STORMWATER POND NO. 5
WETLAND NO. 4
DELINEATES APPROXIMATE COVERAGE OF PLAN SHEET
INDICATES SHEET IDENTIFICATION NUMBER FOR INDIVIDUAL PLAN SHEETS
811
Know what's below
Call before you dig

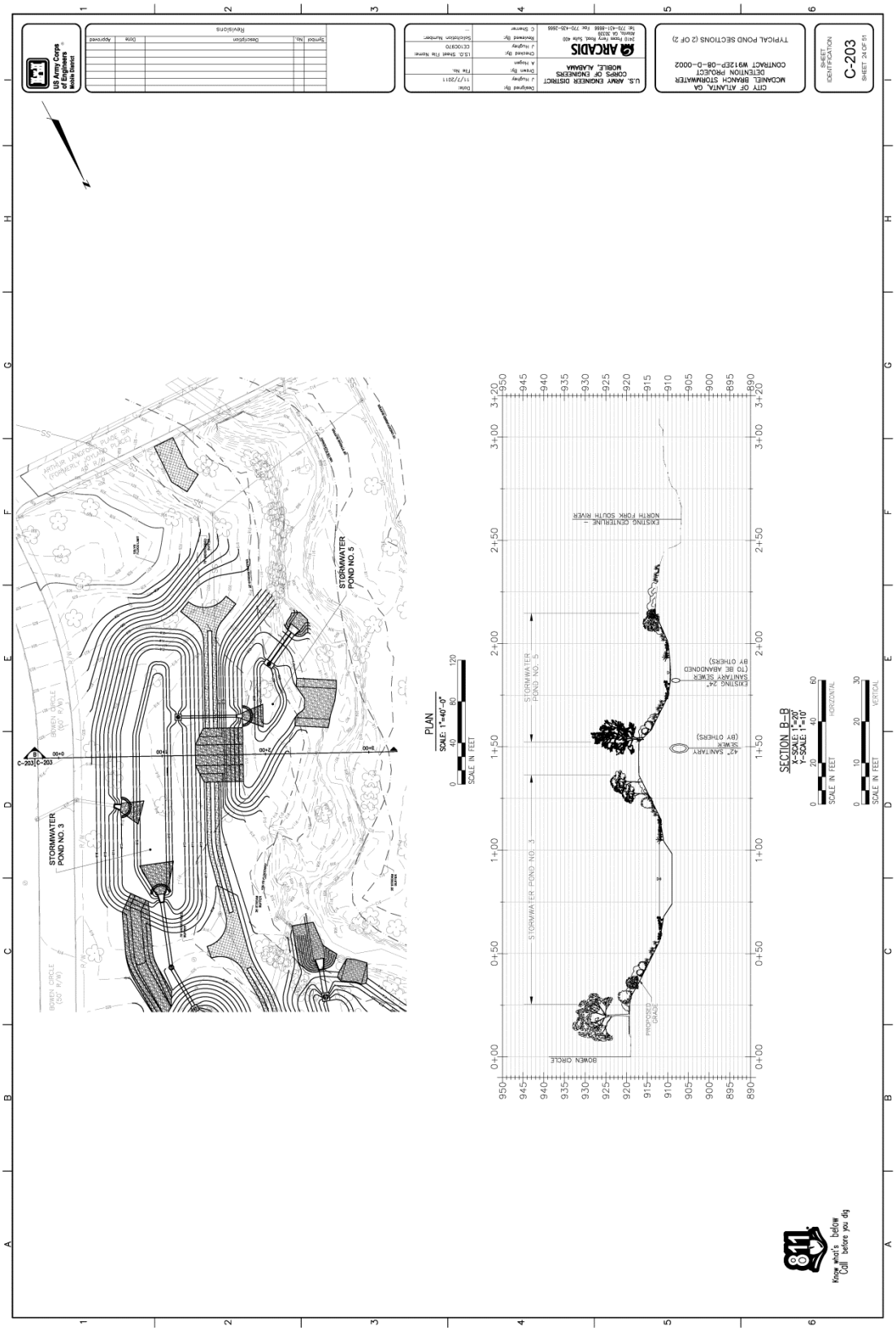

SEE PLAN SHEET C-103
SEE PLAN SHEET C-103
U.S. Army Corps of Engineers Mobile District
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS MOBILE, ALABAMA
ARCADIS
CITY OF ATLANTA, GA
MCCANDEL BRANCH STORMWATER DETENTION PROJECT
CONTRACT W912EP-08-D-0002
GRADING PLAN (1 OF 3)
C-102
SHEET 19 OF 51
BOWEN CIRCLE (50' R/W)
STORMWATER POND NO. 1
WETLAND NO. 4
100-YR FLOODWAY
100-YR FLOODPLAIN
75' UNDISTURBED BUFFER
25' STREAM BUFFER
LIMITS OF DISTURBANCE
SOIL BORING (B1)
SOIL BORING (B2)
SOIL BORING (B3)
12" AQUATIC BENCH
OVERFLOW SPILLWAY (TYP.) (SEE DETAIL SHEET C-305)
STONE FILTER RING (TYP.) (SEE DETAIL SHEET C-611)
STORM DRAIN OUTLET PROTECTION (TYP.) (SEE DETAIL SHEET C-610)
2-TRACK MAINTENANCE PATH W/ PROPOSED 12" RESERVE (SEE DETAIL SHEET C-306)
TURN AROUND
OUTLET STRUCTURE (TYP.) (SEE DETAIL SHEET C-301)
CONCRETE DIVERSION STRUCTURE (SEE DETAIL SHEET (S-101)
MAINTENANCE PATH W/ PROPOSED 30 LF OF BURGE STRUCTURE (SEE DETAIL SHEET C-306)
MAINTENANCE PATH W/ PROPOSED 30 LF TO BE MEASURED FROM CENTER OF PATH ALONG CENTERLINE OF PATH (SEE DETAIL SHEET C-306)
MAINTENANCE PATH W/ PROPOSED 30 LF TO BE MEASURED ALONG CENTERLINE OF DRAINAGE PIPE FROM BELT PAVEMENT (SEE DETAIL SHEET C-306)
SAFETY SIGN (TYP.) (SEE GDOT DETAIL T-1, T-2, AND T-3A SHEETS C-307 AND C-308)
STORM DRAIN OUTLET PROTECTION (TYP.) (SEE DETAIL SHEET C-610)
EXTEND RIP-RAP TO BOTTOM OF BANK
SCALE IN FEET
0 20 40 60
811 Know what's below. Call before you dig.
NOTES
1. CLEARANCE BETWEEN EXISTING SANITARY SEWER LINES AND PROPOSED WATER LINES IS APPROXIMATE AND FIELD VERIFICATION IS REQUIRED. SHOWN ON THESE PLANS IS APPROXIMATE AND FIELD CONDITIONS MAY VARY. CONTRACTOR MUST VERIFY CLEARANCE BETWEEN PIPES. CONTRACTOR MUST NOTIFY ENGINEER IF FIELD CONDITIONS INDICATE CLEARANCES LESS THAN THOSE SHOWN ON THESE PLANS.
2. CONTRACTOR TO REMOVE EXISTING ROCK TO INCLUDE FILL, SAND, AND GRAVEL AS NECESSARY TO PLACE, RUN, BEDDING FIT AT ALL LOCATIONS WHERE PROPOSED HEADWALL TO BE CONNECTED TO EXISTING PIPE.


MATCH LINE SEE PLAN SHEET C-104
MATCH LINE SEE PLAN SHEET C-102
BOWEN CIRCLE (50' R/W)
U.S. Army Corps of Engineers Mobile District
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS MOBILE, ALABAMA
ARCADIS
CITY OF ATLANTA, GA
MCCANDLL BRANCH STORMWATER DETENTION PROJECT
CONTRACT W912EP-08-D-0002
GRADING PLAN (2 OF 3)
C-103
SHEET 26 OF 51
SCALE IN FEET
NOTES
1. CLEARANCE BETWEEN EXISTING SANITARY SEWER LINES AND PROPOSED IMPROVEMENTS IS LIMITED. THE INFORMATION SHOWN ON THESE PLANS IS APPROXIMATE. ACTUAL CONDITIONS MAY VARY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CLEARANCES AND NOTIFY THE ENGINEER IF ANY PROPOSED CLEARANCES LESS THAN THOSE SHOWN ON THESE PLANS.
2. CONTRACTOR TO REMOVE EXISTING RCP TO NEAREST FULL JOINT AND ADJUST HEADWALL LOCATION AND GRADING TO MATCH EXISTING PIPE. ADJUST PROPOSED HEADWALL TO BE CONNECTED TO EXISTING PIPE.
Know what's below Call before you dig


U.S. Army Corps of Engineers Mobile District
Revisions
Symbol
No.
Description
Date
Approved
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MOBILE, ALABAMA
ARCADIS
3312 Piedmont Road, Suite 400
Atlanta, GA 30305
Tel: 770-431-8666 Fax: 770-435-2666
Designed By: J. Hughey
Drawn By: A. Hogan
Checked By: J. Hughey
Reviewed By: C. Sherrer
Date: 11/7/2011
File No.:
(S.O. Sheet File Name: CC10C910
Solicitation Number:
CITY OF ATLANTA, GA
MCCANDLESS BRANCH STORMWATER
DETENTION PROJECT
CONTRACT W912EP-08-D-0002
GRADING PLAN (3 OF 3)
SHEET IDENTIFICATION
C-104
SHEET 71 OF 51
SEE PLAN SHEET C-102
MATCH LINE SEE PLAN SHEET C-103
Know what's below
Call before you dig
SCALE IN FEET
NOTES
1. CLEARANCE BETWEEN EXISTING SANITARY SEWER LINES AND PROPOSED IMPROVEMENTS IS LIMITED TO WHAT IS SHOWN ON THESE PLANS IS APPROPRIATE AND FIELD CONDITIONS MAY VARY. IF THE CONTRACTOR'S REPRESENTATIVE DETERMINES IT IS NECESSARY ENGINEER IF FIELD CONDITIONS INDICATE CLEARANCES LESS THAN THOSE SHOWN ON THESE PLANS.
2. CONTRACTOR TO REMOVE EXISTING RCP TO NEAREST FULL JOINT AS NECESSARY AND ADJUST PROPOSED HEADWALL TO FIT AT ALL LOCATIONS WERE PROPOSED HEADWALL TO BE CONNECTED TO EXISTING PIPE.
BOWEN CIRCLE (50' R/W)
ARTHUR LANGFORD PLACE SW (FORMERLY JOYLAND PLACE)
LIMITS OF DISTURBANCE
CONSTRUCTION EXIT TO BE REMOVED AFTER CONSTRUCTION OF MCDANIEL BRANCH DETENTION PROJECT IS COMPLETE
CONSTRUCTION FENCE / TREE PROTECTION FENCE
100-YR FLOOD LIMIT
TURN AROUND
75' UNDISTURBED BUFFER
25' STREAM BUFFER
OUTLET STRUCTURE (TYP.) (SEE DETAIL SHEETS C-501 TO C-503)
12' AQUATIC BENCH
2-TRACK MAINTENANCE PATH W/ VEGETATIVE COVER (SEE DETAIL SHEET C-305)
24" RCP
STONE FILTER RING (TYP.) (SEE DETAIL SHEET C-511)
UPSTREAM SPILLWAY INVERT @ EL 913.00
OVERFLOW SPILLWAY (SEE DETAIL SHEET C-305)
SOIL BORING (S4)
STORM DRAIN OUTLET PROTECTION (TYP.) (SEE DETAIL SHEET C-510)
STORMWATER POND NO. 3
HW F-1 INVERT @ EL 910.10
HW F-2 INVERT @ EL 908.40
HW E-1 INVERT @ EL 911.93
HW E-2 INVERT @ EL 909.00
HW G-1 INVERT @ EL 907.00
HW G-2 INVERT @ EL 906.41
EXTEND RIP-RAP TO BOTTOM OF BANK
STORM DRAIN OUTLET PROTECTION (TYP.) (SEE DETAIL SHEET C-510)
OVERFLOW SPILLWAY (SEE DETAIL SHEET C-305)
UPSTREAM SPILLWAY INVERT @ EL 910.20
100-YR FLOODWAY
25' STREAM BUFFER
75' UNDISTURBED BUFFER
100-YR FLOOD LIMIT
CITY OF ATLANTA DB 3665 PG 429
N/F


US Army Corps of Engineers Mobile District
Revisions
Symbol No. Description Date Approved
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS MOBILE, ALABAMA
ARCADIS
2810 Parker Ferry Road, Suite 400 Atlanta, GA 30339 Tel 770-431-8666 Fax 770-431-2666
Designed By J. Hughey
Drawn By J. Hughey
Checked By A. Hogan
Reviewed By C. Sherrer
Date 11/7/2011
File No. LS.0. Sheet File Name: CE100370
Solicitation Number
CITY OF ATLANTA, GA
MCCANELL BRANCH STORMWATER DETENTION PROJECT
CONTRACT W912EP-08-D-0002
STORM PIPE PROFILES
SHEET IDENTIFICATION
C-201
SHEET 22 OF 51
NOTES
1. CLEARANCE BETWEEN EXISTING SANITARY SEWER LINES AND PROPOSED STORM SEWER INSTALLATION SHOWN ON THESE PLANS IS APPROXIMATE AND FIELD CONDITIONS MAY VARY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CLEARANCE AND NOTIFY ENGINEER IF FIELD CONDITIONS INDICATE CLEARANCES LESS THAN THOSE SHOWN ON THESE PLANS.
HORIZONTAL SCALE
SCALE IN FEET
VERTICAL SCALE
SCALE IN FEET
WETLAND 4 OUTLET STORM PIPE PROFILE
STORMWATER POND 2 INLET STORM PIPE PROFILE
STORMWATER POND 5 OUTLET STORM PIPE PROFILE
DIVERSION PIPE – STORMWATER POND 2 STORM PIPE PROFILE
STORMWATER POND 3 OUTLET STORM PIPE PROFILE
DIVERSION PIPE – STORMWATER POND 1 STORM PIPE PROFILE
STORMWATER POND 1 OUTLET STORM PIPE PROFILE
STORMWATER POND 2 OUTLET STORM PIPE PROFILE


U.S. Army Corps of Engineers Mobile District
Revisions
Symbol
No.
Description
Date
Approved
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MOBILE, ALABAMA
ARCADIS
2810 Parkway Drive, Suite 400
Azusa, CA 91329
Tel 626-351-8888 Fax 626-351-2866
Designed By
J. Hughey
Drawn By
J. Hughey
Checked By
A. Hogan
Reviewed By
C. Sherrer
Date
11/7/2011
File No.
GEOC970
Solicitation Number
CITY OF ATLANTA, GA
MCDANIEL BRANCH STORMWATER
DETENTION PROJECT
CONTRACT W912EP-08-D-0002
TYPICAL POND SECTIONS (1 OF 2)
SHEET IDENTIFICATION
C-202
SHEET 23 OF 51
BOWEN CIRCLE
(50' R/W)
STORMWATER
POND NO. 1
WETLAND
NO. 4
PLAN
SCALE: 1"=40'-0"
SCALE IN FEET
STORMWATER POND NO. 1
WETLAND NO. 4
CENTERLINE
NORTH FORK SOUTH RIVER
GA DOT STD 1125 - (A-2)
OUTLET STRUCTURE - (A-1)
AQUATIC BENCH
DUAL 24" RCP
42" SANITARY SEWER (BY OTHERS)
DOUBLE 24" RCP TYPE
SEE DETAIL ON PLAN
SHEET C-304
PROPOSED GRADE
SECTION A-A
X-SCALE: 1"=20'
Y-SCALE: 1"=10'
HORIZONTAL
VERTICAL
Know what's below
Call before you dig


U.S. Army Corps of Engineers Mobile District
Revisions
Symbol
No.
Description
Date
Approved
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MOBILE, ALABAMA
ARCADIS
3610 Pelham Pkwy Ste. 400
Atlanta, GA 30339
Tel 770-431-8666 Fax 770-435-2666
Designed By
J. Hughey
Drawn By
A. Hogan
Checked By
J. Hughey
Reviewed By
C. Shearer
Date
11/7/2011
File No.
CE10C970
Solicitation Number
CITY OF ATLANTA, GA
MCDANIEL BRANCH STORMWATER
DETENTION PROJECT
CONTRACT W912EP-08-D-0002
TYPICAL POND SECTIONS (2 OF 2)
SHEET IDENTIFICATION
C-203
SHEET 24 OF 51
STORMWATER POND NO. 3
STORMWATER POND NO. 5
BOWEN CIRCLE (50' R/W)
C-203
PLAN
SCALE: 1"=40'-0"
SCALE IN FEET
STORMWATER POND NO. 3
STORMWATER POND NO. 5
BOWEN CIRCLE
PROPOSED GRADE
EXISTING CENTERLINE - NORTH FORK SOUTH RIVER
EXISTING 24" SANITARY SEWER (TO BE ABANDONED BY OTHERS)
42" SANITARY SEWER (BY OTHERS)
SECTION B-B
X-SCALE 1"=20'
Y-SCALE 1"=10'
HORIZONTAL
VERTICAL
SCALE IN FEET
811
Know what's below
Call before you dig

APPENDIX B

Coordination

From: Sandy_Abbott@fws.gov
To: Sumner, Lewis C SAM
Subject: Re: McDaniel Branch (UNCLASSIFIED)
Date: Tuesday, June 07, 2011 11:19:36 AM

Chuck,

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 McDaniel Branch 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.

Sandy Abbott
USFWS
West GA Sub Office
P.O. Box 52560
Ft. Benning, GA 31995
706-544-7518
Inactive hide details for "Sumner, Lewis C SAM" <Lewis.C.Sumner@usace.army.mil>"Sumner, Lewis C SAM" <Lewis.C.Sumner@usace.army.mil>

"Sumner, Lewis C SAM" <Lewis.C.Sumner@usace.army.mil>

05/03/2011 04:49 PM

To

"Sandy Abbott" <sandy_abbott@fws.gov>

cc

"Trawick, Eubie D SAM" <Eubie.D.Trawick@usace.army.mil>, "Taylor, Crystal E SAM" <Crystal.E.Taylor@usace.army.mil>

Subject

McDaniel Branch (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Sandy,

Here is one of the projects I was referring to. I just realized that my e-mail regarding Swaybranch to you was bounced back because I typed in the address wrong. So I will resend it after this one.

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION

MARK WILLIAMS
COMMISSIONER

DR. DAVID CRASS
DIVISION DIRECTOR

January 30, 2012

Curtis Flakes
Chief, Planning and Environmental Division
Department of the Army
Mobile District, Corps of Engineers
Post Office Box 2288
Mobile, Alabama 36628-0001
Attn: Matt Grunewald

RE: Construct Five (5) Detention Ponds on 2.85 Acre Parcel, Bowen Circle, Atlanta
Fulton County, Georgia
HP-120117-005

Dear Mr. Flakes:

The Historic Preservation Division (HPD) has received the information submitted concerning the above referenced undertaking. Our comments are offered to assist the U.S. Army Corps of Engineers (USACE) in complying with provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Based on the submitted information, HPD concurs that the proposed project will have **no effect** on archaeological resources or historic structures that are listed in or eligible for listing in the National Register of Historic Places (NRHP), as defined in 36 CFR Part 800.4(d)(1)..

Please refer to project number **HP-120117-005** in any future correspondence regarding this undertaking. If we may be of further assistance, please do not hesitate to contact Erin Parr, Environmental Review Specialist, at (404) 651-6546.

Sincerely,

Elizabeth Shirk

Elizabeth Shirk
Environmental Review Coordinator

ES:ebp

cc: Allison Duncan, Atlanta Regional Commission

254 WASHINGTON STREET, SW | GROUND LEVEL | ATLANTA, GEORGIA 30334
404.656.2840 | FAX 404.657.1368 | WWW.GASHPO.ORG