
To: Athens-Clarke County Public Works From: Stantec Consulting Services, Inc.
Re: Stormwater Fee Review Phase I Date: October 29, 2018

The purpose of this technical memorandum is to present an overview of the results and findings of the first phase of the stormwater fee review study conducted for the Unified Government of Athens-Clarke County (ACCGOV) by Stantec Consulting Services, Inc. (Stantec) and Ecological Planning Group (EPG).

1.0 BACKGROUND

In March of 2003, the Unified Government of Athens-Clarke County came under the regulations of the NPDES Phase II permit which regulates the discharges from the ACCGOV stormwater system into local water bodies. To ensure compliance with the permit, the Mayor and Commission (M&C) approved a Stormwater Management Program (SMP) to identify tasks that ACCGOV would undertake over a five-year period. To assist with the funding aspects of the implementation of the SMP, the M&C authorized the Athens-Clarke County (ACCGOV) staff to create a Stormwater Advisory Committee (SAC) consisting of ACCGOV citizens and staff. Over the course of several months, the SAC worked with ACCGOV staff to review the activities the Stormwater Management Program would include, the level of resources necessary to complete these stormwater management activities, and the funding options available within the community to fund the activities. Based on the input from the SAC, the M&C designated three primary funding sources for the SMP including, Special Purpose Local Option Sales Tax (SPLOST), additional developer fees, and a Stormwater Enterprise Fund (Stormwater Utility). On July 1, 2005, completed the full implementation of the Stormwater Utility.

Over the past thirteen years, ACCGOV has continued to fund the management of the stormwater system from SPLOST, developer fees, and the Stormwater Utility. In March of 2017, ACCGOV staff recommended engaging a consultant to conduct an assessment of the continued equity and effectiveness of stormwater user charges to address development changes within ACCGOV, evolving stormwater regulations, and property owner issues and impacts. As a result of a competitive procurement process, ACCGOV engaged Stantec Consulting Services and the Ecological Planning Group to complete an assessment of the Stormwater Utility in December of 2017.

The Stormwater Utility Fee Review Study consist of two primary phases:

- Phase I – Stormwater Costs and Funding Strategy
- Phase II – Stormwater Fee Rate and Credit Review

The scope of services for the first phase of the study includes an examination and analysis of what services the ACCGOV stormwater management program currently provides, whether additional service should be incorporated into the program, and a long-term forecast of the cost of providing the current and additional services. This Technical Memorandum documents Phase I of the study.

2.0 LEVEL OF SERVICE ANALYSIS

An assessment of the level of service achieved in providing stormwater services in a community involves both location, (often referred to as the “extent of service”, focused on where services are provided), and function, (often referred to as the “level of service”, focused on what specific management activities are provided). Separating these two aspects of service provision helps facilitate a useful review of stormwater management activities. Each of the components are discussed below

2.1 EXTENT OF SERVICE

To examine the extent of service it is necessary to understand that a stormwater system is located on both public and private land. Specifically, stormwater drainage system components can be owned, operated and/or maintained by either the local government as part of the public system or by private entities such as businesses, homeowners, and non-profits. Typically, ownership and maintenance of the various components of the stormwater system depends on the specific location of the drainage asset. For example, drainage pipes in the public right-of-way (ROW) are owned and maintained by ACCGOV while ditches on private property are the responsibility of the homeowner. However, there are specific instances where specific ownership or maintenance becomes more nuanced. These instances are related to the stormwater drainage system components that are unique and can be classified as “quasi-public.” The instances include the following components:

- *Directly Connected Pipe Systems* are those pipe segments located on private property outside the ROW but are directly connected to the public drainage system and convey “public water” from a public drainage system discharge point to, or through, at least one private pipe system.
- Driveway culverts are those pipe segments that have been placed within the public ROW to facilitate access from a public street to private property over a publicly-owned drainage ditch or swale.
- *The Public Water Influence Zone* consists of those stream/creek segments that lie on private property but are directly downstream of a public drainage culvert, or other manmade public stormwater management conveyance system. Measurement of the length or extent of this zone can be accomplished in multiple ways, with one useful perspective coming from the Manual for Erosion and Sedimentation Control in Georgia, Georgia Soil & Water Conservation Commission. This manual establishes a public water influence zone that extends for a length of six times the diameter (or width) of the culvert from which runoff is being discharged.

In each of these instances the ownership of the stormwater system asset falls within the private entity (homeowner or commercial property) but are influenced by the public stormwater system. For purposes of our analysis and the extent of service discussion the stormwater system can be divided up into three categories that include public, quasi-public, and private.

2.2 LEVEL OF SERVICE

The level of stormwater system service provided by a community relates to the specific stormwater management services provided (i.e. street sweeping and pipe cleaning) and the frequency at which the services are provided. While many stormwater management activities are dictated by regulatory requirements, communities often elect to provide higher levels of service based on the expectations of the community (e.g. periodic leaf pickup).

ACCGOV last examined its extent and level of service in a comprehensive manner when the Stormwater Utility was developed during 2004 and 2005. Specifically, the Stormwater Management Program was developed to meet the regulatory requirements of the stormwater system, maintenance of the publicly-owned system and necessary capital improvements to ensure the proper function of the system. The Stormwater Utility was developed to fund the regulatory requirements and the maintenance of the publicly-owned system with SPLOST funding used to address capital improvement needs.

For ACCGOV, the term “Level of Service” was used to designate three alternative levels of activity A, B, and C, including both level of service and extent of service concepts as described. The following sections of this technical memorandum outline the extent and level of service analysis completed as part of the Stormwater Utility Review Study.

2.3 LEVEL OF SERVICE A: CURRENT LEVEL OF SERVICE

The current extent and level of service were examined based on discussions with ACCGOV staff, data provided by ACCGOV staff, and the ACCGOV Department of Transportation & Public Works Standard Operating Procedure for Drainage Complaints. This document provides guidance related to the current extent of service and outlines ACCGOV responsibilities for stormwater drainage system maintenance. The document identifies the following drainage system components as ACCGOV's responsibility:

- Drainage systems within ACCGOV rights-of-way, including stabilization of discharge points that may lie slightly outside the right-of-way
- Drainage systems on ACCGOV-owned properties
- Drainage systems located on private property but lying within drainage easements that have been legally conveyed to ACCGOV (former City or County governments)
- Additionally, ACCGOV may perform work on drainage systems located on private property only in emergency situations when public safety is threatened

If work is to be performed under this policy on private property, a Drainage Improvement Agreement (DIA) must be executed by the property owner and ACCGOV to define the terms of ACCGOV's involvement and specify cost obligations for each party.

The vast majority of the current stormwater management activities within ACCGOV are related to the management of the public system. ACCGOV manages an extensive stormwater system consisting of over

355 miles of stormwater mains, 13,000 catch basins and inlets, 4,000 manholes, 653 stormwater outfalls, 116 public stormwater facilities, and 320 miles of roadside ditches. The Transportation and Public Works Department is responsible for the management of the stormwater system. Within this Department, the Engineering Division is responsible for administration and financing, planning and engineering, regulation and enforcement and capital improvements. The Streets and Drainage Division is responsible for the operations and maintenance of all drainage facilities.

The current level of service provided by ACCGOV can be generally categorized as either related to regulatory compliance or maintenance of the system. The regulatory activities are related to meeting the six minimum controls as outlined by the NPDES stormwater Phase II permit. This includes some inspections of privately owned facilities (detention ponds and control structures) as required by the permit. The ongoing maintenance of the system ensure the proper function of the drainage system. The current extent and level of service defined as LOS A, is summarized in Table 1.

Table 1 - Current Level Summary

Level of Service	Extent of Service		
	Public	Quasi-Public	Private
LOS A1: Maintenance	Maintenance of public stormwater infrastructure within the ROW	Performs stabilization of discharge points that lie slightly outside the ROW (Residential Only)	<ul style="list-style-type: none">Emergency basis only, must be a threat to public safety or property (residential only)Assistance provided as part of Drainage Improvement Agreement (DIA)
LOS A2: Regulatory	Complies with NPDES Phase II MS4 permit requirements		

2.4 LEVEL OF SERVICE B

A potential expansion of service representing an incremental increase in services provided was developed based on discussions with ACCGOV staff and our industry experience. Level of service B focuses on providing an enhanced level of service with the current extent of service provided by ACCGOV. The level of service was designed to increase the frequency and effectiveness of the current stormwater management activities. Each of the levels of service considered is described in detail below.

LOS B1: Contract Maintenance Public Ponds, Bioretention, Roadside Ditches

The first level of service enhancement analyzed was utilize outside contact maintenance firms for the maintenance of public ponds, bioretention and roadside ditches. While it is important to note that management of these facilities falls within the ACCGOV current defined service level (LOS A), discussions with ACCGOV staff reveal that the pace at which these facilities are currently maintained does not always

allow for the property maintenance during the year. Contracting out the maintenance or a portion of the maintenance of these facilities would ensure that the periodic maintenance is completely in an acceptable manner.

LOS B2: Camera Truck / Televising Crew

The second level of service that we considered was the addition of a dedicated crew to allow for televising and inspecting stormwater pipes. One of the key challenges facing ACCGOV and most stormwater utilities around the country are system failures due to aging infrastructure. While ACCGOV is aware of many sections of the stormwater system that need to be replaced or will need to be replaced in the near future, the condition and function of the entire system is not known. The addition of a camera truck and televising crew would allow ACCGOV to be more proactive in the management of the buried stormwater infrastructure by identifying problem areas and so that they can be addressed prior to cost failures. This resource would also aid in source tracking for some illicit discharges. A televising crew would require the addition of two full time employees and the purchase of a televising truck and equipment.

LOS B3: Vac Truck Operations

The third level of service that was considered includes the addition of a dedicated crew for vac truck operations. ACCGOV currently owns two vac trucks that are used to clean stormwater system infrastructure. However, ACCGOV does not currently have sufficient dedicated staff to operate both trucks. The addition of two full time employees would allow ACCGOV to ensure full operations of these vehicles and thereby increase the frequency of maintenance within the stormwater system. When pipe cleaning activities are caught up, the additional full-time employees can inspect stormwater infrastructure and conduct fieldwork necessary to improve GIS based mapping of this infrastructure.

LOS B4: Expanded Street Sweeping

The fourth level of service that was considered would increase the frequency and extent of street sweeping within ACCGOV. Street sweeping is currently completed on weekly, monthly or quarterly basis depending on the specific location of streets within ACCGOV. Based on discussions with ACCGOV staff, there are currently collector and arterials streets with bike paths that are currently not swept. Additionally, there are streets that are currently swept on a quarterly basis that would benefit increased frequency during Fall to assist with leaf and debris collection. This level of service enhancement would address the streets that are currently not swept and increase the frequency of quarterly routes. ACCGOV currently contracts out street sweeping, so the enhancement would simply require an expansion of these contracted services.

The activities associated with Level of Service B are summarized in Table 2.

Table 2 - Level of Service B Summary

Level of Service	Extent of Service
	Public
LOS B1	Contract Maintenance <ul style="list-style-type: none"> Increased maintenance within public detention basins, bioretention facilities and roadside ditches
LOS B2	Camera Truck and Televising Crew <ul style="list-style-type: none"> Dedicated crew to allow for televising and inspecting stormwater pipes Would allow ACCGOV to identify stormwater piping issues and proactively manage system
LOS B3	Vac Truck Crew <ul style="list-style-type: none"> Dedicated crew for vac trucks operations Would ensure full operations of vac truck
LOS B4	Expanded Street Sweeping <ul style="list-style-type: none"> Quarterly sweeping of collectors and arterials not currently swept Increase quarterly routes to monthly during Fall

2.5 LEVEL OF SERVICE C

Level of service C focuses solely on the extending where ACCGOV provides service. As summarized in Table 1, ACCGOV will provide services on private property on an emergency basis or if a DIA has been executed and in some instances when stabilization of discharge points that lie slightly outside the ROW. However, the provision of these management activities are certainly the exception. Level of service C would include the development of a dedicated private easement crew that would be solely focused on addressing stormwater issues within the quasi-public and private property. This crew would focus on addressing items such as connected pipes on private easements, driveway pipes and public water zone of influence areas. The provision of these services would continue to require an executed DIA and ACCGOV would only provide the labor and minimal materials consistent with current practice.

2.6 CAPITAL IMPROVEMENT PROJECTS

To examine the current capital improvement needs within the ACCGOV stormwater system, our project team reviewed prior studies completed for ACCGOV and had extensive discussions with ACCGOV staff to review projects that have been identified within the system. The prior study documentation reviewed includes the 2001 Stormwater Master Plan and each of the seventeen individual Watershed Management Plans for each of the ACCGOV major watersheds. Based on this review six primary categories of capital projects were identified including the following:

- **Master Plan Level I Pipes** - This includes pipes causing hazards, nuisances, and flooding that have been reported/observed and verified through analysis that were within ACCGOV's ROW as identified in the 2001 Master Plan.
- **Master Plan Level II Pipes** - This includes pipes that were identified from modeled conditions but not previously reported/observed as identified in the 2001 Master Plan.
- **Pipe Replacement Priority I** - Pipes identified by ACCGOV staff for replacement due to immediate consequences of failure.
- **Pipe Replacement Priority II** - Pipes identified by ACCGOV staff for long-term replacement due to long-term issues.
- **Other Rusted Pipe** - Pipes identified by ACCGOV staff that will need replacement due to demonstrated deteriorating condition.
- **Watershed Management Program** - Projects identified in the Watershed Management Plans for each of the 17 major watersheds within ACCGOV.

As demonstrated by the list of categories of projects, the vast majority of capital improvement needs are related to the drainage pipes within the stormwater system. Given the overall age and condition of the buried infrastructure within the drainage system significant reinvestment is currently required to ensure the proper function of the system. Similar to many communities around the United States, many of the pipes within the drainage system are made of corrugated metal. While this pipe material was widely used due to its relatively low cost, it is prone to rusting and structural failures and will require replacement.

Working with ACCGOV staff, a summary of the near and long-term capital improvement projects was developed. Table 3, on the following page, provides a summary of the number of projects and costs by project category. The table demonstrates a total cost for all 185 projects of nearly \$93 million.

Table 3 - Capital Improvement Project Summary

Type of Capital Project	Projects	Cost (\$ current)
Master Plan - Level I Pipes	26	\$11,700,000
Master Plan - Level II Pipes	71	\$36,700,000
Pipe Replacement - Priority I	26	\$15,900,000
Pipe Replacement - Priority II	28	\$6,100,000
Additional Rusted Pipe Replacement	25	\$5,700,000
Watershed Management Program	9	\$16,700,000
Total	185	\$92,800,000

ACCGOV has historically funded the majority of capital improvement projects for the expansion, improvement and replacement of the stormwater system from SPLOST and land development fees. On a limited basis, and especially in the case of emergencies, capital projects have been funded from stormwater fee revenues when additional revenues have been generated above and beyond the cost of operating system. Section 4 of this technical memorandum examines the potential funding of the projects from the Stormwater Utility or a combination of funding sources along with the funding of the various levels of service as well as the potential pace at which the identified projects could be completed.

3.0 PUBLIC ENGAGEMENT

Public engagement is one of the key components of the Stormwater Fee Review Study. The engagement efforts for the first phase of the study were designed to gain an understanding the level of service expectations within the community. As part of the first phase of the study several key activities were completed to facilitate public engagement.

3.1 PUBLIC OPEN HOUSES

Two public open-house functions were held at the ACCGOV Transportation and Public Works Department offices located at 120 W. Dougherty St. in Athens on August 16th of 2018 in the afternoon and evening. During the open houses, individuals from within the community were provided with a presentation that outlined the stormwater system, the management activities currently provided by ACCGOV and solicited input regarding the community expectations for stormwater management. Following the presentation, individual stations were made available where individuals could identify known flooding issues within the system, take a survey, ask questions regarding their stormwater bill, indicate where they believe additional funds should be spent on stormwater and voice general concerns. As result of the open houses, ACCGOV staff received valuable input from members of the community regarding their expectations for stormwater management. This input included areas within the system for investigation by ACCGOV staff and concerns within flooding issues on individual private property.

3.2 COMMUNITY-WIDE SURVEY

The second key component of the public engagement effort include the development and distribution of a community-wide survey. The survey was developed to gauge the community's understanding of the stormwater system and expectations for stormwater management. The survey was made available for approximately 2 months and ACCGOV received over 350 respondents.

The survey included 10 questions which are outlined in Table 4.

Table 4 - Community-Wide Survey Questions

	Question	Options
1	Do you have stormwater, flooding, or water quality issues on your property?	Yes/No
2	Do you believe that: <ul style="list-style-type: none"> Runoff from your neighbor's property or other upstream properties is negatively impacting your property? Runoff from your property is negatively impacting your neighbor's property or other downstream properties? 	Yes/No Yes/No
3	Do you think ACCGOV is doing enough to manage stormwater and flooding issues?	Yes/No
4	Do you know what ACCGOV does with stormwater utility fee revenues?	Yes/No
5	Do you think stormwater fees fund: <ul style="list-style-type: none"> general City/County government functions stormwater management and regulatory procedures maintenance of public stormwater infrastructure construction of public stormwater infrastructure maintenance of privately owned detention ponds maintenance of private stormwater ditches new projects to address flooding and water quality projects 	Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No
6	How does ACCGOV determine the stormwater billing amount for your property? <ul style="list-style-type: none"> total parcel area impervious surfaces land use information heated square footage rainfall data I don't know 	Yes/No Yes/No Yes/No Yes/No Yes/No []
7	Did you know that ACCGOV has identified more stormwater flooding and water quality issues than can presently be addressed with existing stormwater utility funding?	Yes/No
8	Would you support an increase in stormwater charges if it helped ACCGOV to address: <ul style="list-style-type: none"> cleaning of driveway pipes maintenance of privately owned detention ponds maintenance of private stormwater ditches Water quantity / flooding projects Water quality improvement projects Other _____ 	Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No
9	Is there anything else you would like to share with ACCGOV's stormwater management team?	

3.2.1 Survey Results

A summary of the results of the survey are provided below.

- Almost 40% of respondents believe they have stormwater issues on their property.
- 33% of respondents believe that runoff from their neighbor's property negatively impacts them.
- 11% of respondents believe that runoff from their property is negatively impacting their neighbor.
- 50% of those surveyed responded that ACCGOV is doing enough to manage stormwater.
- Only approximately 13% of respondents knew that stormwater fee revenues go towards stormwater management and regulatory procedures, maintenance of public stormwater infrastructure, construction of public stormwater infrastructure, investigation of illicit discharges, educational activities, and new projects to address flooding and water quality.
- Although over 60% of respondents knew that the stormwater billing amount is determined based on impervious surfaces, only 6% knew that it is determined by both impervious surfaces and land use classifications.
- Over 90% of respondents believe the fee should continue to be charged to tax-exempt properties.
- 45% of respondents believe there are more stormwater issues present than can be addressed with existing funding. 54% believe that existing funding is sufficient.
- 54% of respondents would not support an increase in stormwater charges. The graph below identifies how the participants responded to the survey.

**Would you support an increase in stormwater charges if it helped
Athens-Clarke County to address:**

I would not support an increase in stormwater charges	Water quantity/flooding projects	Water quality improvement projects	Cleaning of driveway pipes	Maintenance of privately owned detention ponds
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4.0 FUNDING REQUIREMENTS

This section of the technical memorandum outlines the analysis completed to determine the cost of providing the various levels of service described in Section 3.

4.1 - CURRENT LEVEL OF SERVICE: LEVEL OF SERVICE A

The funding requirements for the current level of service is defined by the Transportation and Public Works Department Fiscal Year (FY) 2019 budget for stormwater management. To facilitate the analysis, ACCGOV staff provided the FY2019 budget allocated between those costs incurred to meet the regulatory requirements and maintenance on the system. Table 5 presents a summary of the funding requirements for the current level of service and the anticipated revenues from stormwater fees.

Table 5 - Current Level of Service Funding Requirements

Activity	Annual Cost
FY 2019 Budgeted Regulatory Compliance	\$1,256,977
FY 2019 Budgeted Public System Maintenance	\$2,451,326
Existing Capital – Watershed Management	\$100,000
Total Current Level of Service Budget	\$3,808,303
FY 2019 Stormwater Fee Utility Revenues	\$4,169,000
Available for Capital Projects	\$461,497

Table 5 shows that the stormwater fees will generate sufficient revenues in FY 2019 to fund the current level of service and provide a modest amount of funds for capital projects. It is important to note however that the current level of service continues to assume that the majority of capital projects are funding from SPLOST.

4.2 - LEVEL OF SERVICE B

To develop the funding requirements for the enhanced maintenance within the public system associated with Level of Service B activities, we worked with ACCGOV staff to develop cost estimates for the individual management activities on a per unit basis (i.e. the maintenance required for an individual pond). These per unit costs were then applied to the number of facilities that would need to be managed per year. In addition, the one-time cost for vehicles and equipment were identified to provide a fully loaded cost for each maintenance activity. The specific assumptions and calculations for each activity are provided in the Appendix to this memorandum. Table 6 provides a summary of the one-time and annual costs associated with each activity.

Table 6 - Level of Service B Funding Requirements

Activity	One-Time Expense	Recurring Annual Expenses
LOS B1: Contract Maintenance		\$540,000
LOS B2: Camera Truck Televising Crew	\$180,000	\$145,000
LOS B3: Vac Truck Crew		\$120,000
LOS B4: Expanded Street Sweeping		\$100,000
Total	\$180,000	\$905,000

4.2 - LEVEL OF SERVICE C

The funding requirements necessary to outfit and operate a private easement crew were developed based on discussions with ACCGOV staff and costs currently incurred by ACCGOV as it provides similar services. The private easement crew is defined as consisting of six full time maintenance staff. It is important to note that the funding requirements for Level of Service C are not based on an assumed amount of maintenance completed within private easements each year but rather on the cost of making a crew available. Based on our analysis it was determined that the one-time costs to outfit the crew would be approximately \$1 million and the annual recurring costs would be \$730,000. The specific assumptions and calculations used to develop the funding requirements are provide in the Appendix.

4.3 - TOTAL MAINTENANCE FUNDING REQUIREMENTS

Once the funding requirements for each level of service were developed, a ten-year projection of the total funding requirements was developed to allow for comparison with the existing stormwater utility revenues. Table 7 presents the next five years of the forecast of annual maintenance and the estimated stormwater utility revenues from existing stormwater fees. It should be noted that the forecast of stormwater utility revenues assumes an annual growth of 1 percent in equivalent residential units (ERUs) per year within the community. To develop the forecast of annual maintenance costs the individual expense items were escalated by type of expense given historical trends in cost inflation for the specific type of expense. The table demonstrates that the current stormwater utility revenues are not sufficient to fund the existing and enhanced level of service to provide additional maintenance within the stormwater system. To meet the funding requirements, the existing stormwater fee would need to be increased.

Table 7 - Forecast of Annual Maintenance Funding Requirements

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Current Level of Service					
System Maintenance	2,451,326	2,517,120	2,592,634	2,670,413	2,750,525
MS4 Permit Compliance	1,256,977	1,292,944	1,331,733	1,371,685	1,412,835
Total Current Level of Service	\$ 3,708,303	\$ 3,810,064	\$ 3,924,366	\$ 4,042,097	\$ 4,163,360
Enhanced Level of Service (Maintenance)					
LOS B1 - Contract Maintenance	540,000	556,200	572,886	590,073	607,775
LOS B2 - Camera Truck and Televising Crew	325,000	149,350	153,831	158,445	163,199
LOS B3 - Vac Truck Crew	120,000	123,600	127,308	131,127	135,061
LOS B4 - Expanded Street Sweeping	100,026	103,026	106,117	109,301	112,580
LOS C - Private Easement Group	1,769,755	751,648	774,197	797,423	821,346
LOS D - Placeholder for additional LOS	-	-	-	-	-
Total Enhanced Level of Service	\$ 2,854,781	\$ 1,683,824	\$ 1,734,339	\$ 1,786,369	\$ 1,839,960
Total Maintenance	\$ 6,563,084	\$ 5,493,888	\$ 5,658,705	\$ 5,828,466	\$ 6,003,320
Existing Utility Revenues	\$ 4,210,498	\$ 4,252,603	\$ 4,295,129	\$ 4,338,080	\$ 4,381,461

4.4 - CAPITAL IMPROVEMENT PROJECTS

The capital improvement needs within the stormwater system are significant with a total of 185 projects identified that will cost nearly \$100 million to complete. While the projects all will need to be completed, it is unrealistic to assume that ACCGOV would be able to fund and complete all of the project in the near-term. To develop a realistic forecast of the capital funding requirements over the next ten years, Stantec worked with ACCGOV staff to reduce the projects by category to those that need to be completed within the next ten years, resulting in a total of 83 projects that will cost approximately \$40 million to complete. Table 8 presents a summary of the number of projects by type and the estimated costs.

Table 8 - Near Term Capital Project Summary

Type of Capital Project	Projects	Cost (\$ current)
Area Wide Stormwater Projects (Master Plan Level I and II Pipes)	20	\$12,000,000
Pipe Replacement - Priority I	26	\$15,900,000
Pipe Replacement - Priority II	28	\$6,100,000
Watershed Management Program	5	\$6,000,000
Total	83	\$40,000,000

Based on the cost of the projects that have been identified for next ten years, the annual funding requirements to complete the projects would be approximately \$4 million per year. As demonstrated earlier in this section, existing stormwater utility revenues will not generate sufficient funds to meet the annual capital needs. Absent adjustment to the stormwater fees, the funding for capital projects would need to continue to come from SPLOST and land development fees.

5.0 SCENARIO ANALYSIS

The final step in the first phase of the stormwater rate study is to examine financial planning scenarios that outline how the various level of service enhancements could be funded. To facilitate the development of the scenarios, our project team utilized a financial planning model that provides a forecast of the annual funding requirements for the various levels of service over a ten-year projection period. The financial model provides the necessary adjustments to stormwater fees given the additional funding requirements associated with each scenario (i.e. the addition of a portion of capital projects funded from stormwater fees). During the course of the first phase of the study, we utilized the financial model to review a host of financial planning scenarios with ACCGOV staff. Based on the review of potential scenarios, we arrived at four separate scenarios that are provided for consideration. The scenarios are summarized in Table 9.

Table 9 - Stormwater Utility Funding Scenarios

Scenario	Maintenance	Capital Funding (10-years)
1	Existing (LOS A)	All capital funded from SPLOST (\$40 M)
2	Existing (LOS A) + Camera Truck/TV Crew (LOS B2) + Vac Truck Crew (LOS B3)	All capital funded from SPLOST (\$40 M)
3	Existing (LOS A) + Camera Truck/TV Crew (LOS B2) + Vac Truck Crew (LOS B3)	Stormwater Utility fund Priority Pipes I & II (\$22 M) All other capital funded by SPLOST (\$18 M)
4	Existing (LOS A)	All capital funded by Stormwater Utility (\$40 M)

Each of the stormwater utility funding scenarios would have varying impacts on the stormwater fee, given the additional funding to be generated from the stormwater fee. It should be noted that given the magnitude of the capital projects, our financial analysis assumes that ACCGOV would issue debt to fund the capital projects if the projects are funded from the stormwater utility. The results are presented in Table 10.

Table 10 - Stormwater Utility Funding Scenario Results

Scenario	FY 28 Fee (Monthly)	FY 28 Fee (Annual)	Stormwater Utility Revenue FY28
Scenario 1: LOS A (current maintenance, no capital)	\$3.50	\$42.00	\$4,600,000
Scenario 2: LOS A + LOS B2 + LOS B3 (current level maintenance, camera truck/tv crew, vac truck)	\$3.50	\$42.00	\$4,600,000
Scenario 3: LOS A + LOS B2 + LOS B3 + minimum capital (current level maintenance, camera truck/tv crew, vac truck, Priority I & II Pipes)	\$5.02	\$60.24	\$6,500,000
Scenario 4: LOS A + all capital (current maintenance, all capital)	\$6.01	\$72.12	\$8,000,000

The table demonstrates that for Scenarios 1 and 2, which incorporate no change in maintenance levels or modest additions (Scenario 2), the existing stormwater fee would be sufficient to meet the funding requirements over the ten-year period. This is possible given the fact that the current stormwater fee revenues generate a modest surplus (revenues exceed expenditures), as well as opportunities for repurposing and focusing certain activities. Scenarios 3 and 4, which incorporate the addition of capital projects to the utility, would require adjustments to the stormwater fee over the ten-year period. The required adjustments to the stormwater fee to meet the funding requirements of Scenarios 3 would bring the stormwater fee closer to the national average fee which is currently estimated to be \$5.00 per month.

CONCLUSIONS

As a result of the analysis conducted in Phase I, Stantec recommends that ACCGOV implement Scenario 3, which includes continued provision of LOS A1 and A2, and the addition of LOS B2 and LOS B3, as well as the minimum capital for Priority I and II pipes. Together, these actions will maintain all current stormwater management activities and add a camera truck and crew, and a full-time vac truck crew. Additionally, our recommendation is that ACCGOV continue to fund stormwater capital projects through the SPLOST program at approximately \$4 million per year. The combination of these activities will enhance ACCGOV's stormwater services at without requiring substantial increases in total expenditures above historic levels.

NEXT STEPS

Commission action is required to support the proposed spending and funding plan, which is a pre-requisite for staff action to implement the proposed management practices and proposed enhancements to the level of service currently being provided.

Phase II of the study will address ACCGOV's stormwater rate structure and the overall level of rates. This will include reviewing ACCGOV's credit policies for actions that can be taken by customers to contribute to effective stormwater management and as a result, warrant a reduction in stormwater charges. As part of this process, we will also review potential revenue reductions associated with the credits ACCGOV would implement.

Appendix

Determination of Funding Requirements - LOS B1: Contract Maintenance Public Ponds, Bioretention, Roadside Ditches

Detention Basins	Ponds Per Year	Cost per Pond
Clean up/tree removal	7	\$10,000
Annual Cutting	60	\$1,000
Total incremental cost for detention basins		\$130,000
Bioretention	Facilities Per Year	Cost per Facility
Weeding – Labor	90	\$1,000
Mulching – Labor	30	\$1,500
Mulching – Materials		\$200,000
Total incremental cost for bioretention		\$335,000
Roadside ditches		\$75,000
Total B1 Cost		\$540,000

Determination of Funding Requirements - LOS B2: Camera Truck /

Number of new FTEs	2
Labor cost per FTE (annual)	\$60,000
Total Labor	\$120,000
Recurring Cost of Materials plus Equipment Replacement	\$25,000
Cost of Truck	\$180,000
Recurring Annual Needs	\$145,000
One Time Costs	\$180,000
Total Camera Truck & Televising Crew Expense	\$325,000

Determination of Funding Requirements - LOS B3: Vac Trucks

Number of new FTEs	2
Labor cost per FTE (annual)	\$60,000
Total Labor	\$120,000
Recurring Cost of Materials plus Equipment Replacement	\$-
Total Cost of New FTEs for Vac Truck	\$120,000

Determination of Funding Requirements - LOS B4: Expanded Street Sweeping

	Frequency	Miles
Weekly Routes	52	8.9
Monthly Routes	12	6.9
Quarterly Routes	4	46.6
Current Miles of Sweeping		731.0
Cost per mile to sweep		\$87
Cost of existing street sweeping		\$63,566

Additional Miles to sweep:

Currently not swept	4	252.5
Quarterly Routes to Monthly	3	46.6
Total equivalent miles		1,150.0
Total Cost of New Sweeping		\$100,026
Total Cost of Sweeping		\$163,591

Determination of Funding Requirements - LOS C: Private Easement Group

Operations Coordinator	1	\$80,000
Supervisor	1	\$70,000
Operators III	2	\$65,000
Workers II	2	\$54,000
Total Labor		\$388,000
Recurring cost of Materials (Grass seed, rip rap,		\$86,755
Equipment/Fuel		
Recurring Contract Cost (Tree removal, fences,		\$65,000
Cost of Equipment		\$1,040,000
Recurring Annual Needs		\$729,755
One Time Costs		\$1,040,000
Total Cost of New Crew		\$1,769,755