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FINAL
Technical Memorandum 6.0

To: Wake County Project Technical Management Team
From: CDM/Hazen and Sawyer
Date: June 7, 2004
Subject: Organizational Models for Intergovernmental Cooperation
Western Wake County Regional Wastewater Treatment Studies
Project

This technical memorandum (TM) is one in a series of TMs that have been prepared for the Western Wake County Regional Wastewater Treatment Studies Project. The purpose of this TM is to present the findings and recommendations of an evaluation of alternative organizational models for intergovernmental cooperation that can be applied for the implementation of the recommended wastewater management solution. The information provided in this TM is as follows:

Executive Summary

- 1) Introduction
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- 3) Description of Organizational Models
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Executive Summary

Water and sewer services are not traditionally provided in a competitive setting. The average household, for example, cannot buy “a gallon of service” from each of a dozen suppliers or select a utility from several choices based on level of service, quality of service or cost of service preferences. Instead, utilities are considered “natural monopolies,” where, because of high fixed costs, only one delivery system makes economic sense across a broad geographic area. However, in today’s market setting, consumers are demanding that “natural monopolies” act more like “free-market” competitors.

In response to these pressures, local governments are evaluating options to pursue intergovernmental cooperation to reduce sewer service costs and improve the quality, delivery, and overall reliability of sewer services. Fortunately, North Carolina general statutes provide a wide range of organizational models for intergovernmental cooperation for sewer service.

Preferred Wastewater Management Solution

At the May 2004 meeting of the Project Partners, a consensus was reached to pursue the implementation of Option 10D as the preferred wastewater management solution. With the selection of the preferred solution complete, the Project Partners have initiated an evaluation of alternative organizational models for intergovernmental cooperation that can be implemented to secure permits, acquire land, finance, design, construct, manage, operate and maintain the facilities associated with the recommended solution.

For the purposes of this TM it is anticipated that each local government will continue to own, operate, and maintain its existing wastewater infrastructure facilities, and be responsible for all activities related to water and sewer billing, revenue collection, management, administration and customer service. The scope of the facilities and services that will be subject to intergovernmental cooperation will include:

- The regional raw wastewater pumping stations and conveyance facilities;
- The regional water reclamation facility;
- The regional biosolids management facility;
- The effluent pumping and conveyance system, and
- The reclaimed water system.

Alternative Organizational Models

For the participating local governments, the best organizational model for the regional wastewater management facilities will be the one that is the most efficient and effective in delivering sewer services. The effectiveness of an organization is measured by the degree of mission accomplishment; while the efficiency of an organization is measured by the resource inputs required for achieving service or product outputs. The fewer the resource inputs required for achieving a prescribed level of service or product output, the greater the organization's efficiency. The two organizational models that have been evaluated, and which are discussed in this TM are the interlocal agreement model and the special purpose district/authority model.

Interlocal Agreement

Under this organizational model, two or more local governments will execute an interlocal agreement for either or all of them to provide a service that each is already authorized to provide by statute. This organizational model is very flexible and allows for centralized operation, maintenance and management of an urban service, while providing for local control over service levels. The two organizational models associated with interlocal agreement include: (a) the sale-and-purchase model, and (b) the joint agency model.

Local governments generally elect to pursue the interlocal agreement model when it is demonstrated that the existing delivery organizations for water and sewer service are efficient and effective, and there is confidence that the efficiencies and effectiveness can be translated to larger service areas and more complex systems. For the local governments participating in this project, such confidence is warranted since each local government currently owns, operates and maintains components of a sewer system, including wastewater pumping stations, water reclamation facilities, biosolids management facilities, and effluent disposal systems.

Special Purpose District/Authority

Under this organizational model two or more local governments would work together to create a special purpose district/authority in accordance with North Carolina general statutes. Once established, the special purpose district/authority would be recognized as an independent unit of local government – having an independent governing body, service area boundary, set of ordinances, and schedule of rates, fees and charges. Two alternatives have been evaluated for the special purpose district/authority organizational model: (a) the water and sewer authority, and (b) the metropolitan sewerage district.

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Local governments generally elect to pursue the special purpose district/authority model when local conditions make it difficult to use existing delivery organizations for water and sewer service. Such conditions include, but are not limited to, the following:

- Insufficient or unfavorable capital funding is available for the construction of the facilities.
- Concerns that one or more governing boards could unfavorably influence the level of service, quality of service and cost of service provided to the participating local governments.
- Inadequate financial, management and technical expertise available within each local government to successfully deliver the facilities and services.

Recommendation

While there are advantages associated with the creation of a special purpose district/authority, local conditions do not warrant the pursuit of an independent unit of local government for the management, administration, operation and maintenance of the regional wastewater management facilities. Given that the participating local governments currently operate efficient and effective water and sewer delivery organizations, it is recommended that local governments pursue the interlocal agreement model and work together to create a joint agency. This will be the most efficient and effective organizational model for the delivery of the required sewer services.

1.0 Introduction

At the May 2004 meeting of the Project Partners, a consensus was reached to pursue the implementation of Option 10D as the preferred wastewater management solution. With the selection of the preferred solution complete, the Project Partners have initiated an evaluation of alternative organizational models for intergovernmental cooperation that can be implemented to secure permits, acquire land, finance, design, construct, manage, operate and maintain the facilities associated with the recommended solution.

For any local government, the best organizational model for an urban service is the one that is the most efficient and effective in accomplishing prescribed goals and objectives. At this time, local governments all across the nation are being pressured to increase the level and quality of urban services; while at the same time being pressured to reduce the cost of urban services. In response to these pressures, local governments are evaluating options to pursue intergovernmental cooperation to reduce service costs and improve the quality, delivery, and overall reliability of urban services.

Fortunately, North Carolina general statutes provide a wide range of organizational models for intergovernmental cooperation for sewer service. The two options that will be evaluated in this TM include:

- 1) Interlocal Agreement
- 2) Special Purpose District/Authority

2.0 Background

In May 2002, the Towns of Apex, Cary, Fuquay-Varina, Holly Springs and Morrisville (Project Partners) agreed to jointly participate in, and fund, the Western Wake County Regional Wastewater Treatment Studies Project (Project). The goal of the Project is to identify an efficient and effective wastewater management solution that can be implemented to provide increased capacity for growth and development, and be responsive to the regulatory requirements associated with interbasin transfer.

The Project has been conducted in two phases. The Phase I study effort was conducted from November 2002 to September 2003, and focused on the identification and evaluation of alternative wastewater management options and the development of a reclaimed water program. The Phase II study effort has been conducted from October 2003 to June 2004, and has focused on the evaluation of financial impacts and alternative organizational models for four wastewater management options.

2.1 Phase I Study

During Phase I of the project, the Project Partners initially evaluated 24 wastewater management options, and selected seven options for more detailed analysis. At the September 2003 meeting of the Project Partners, a workshop was conducted to review and discuss the results of the detailed evaluations. After reviewing the available information, the Project Partners selected four options for further evaluation as part of a Phase II study effort.

The four options selected for additional study were designated: Options 1, 5, 9, and 10D. It should be noted that Option 1 represents the “base line” option, which corresponds to each local government acting independently to address its wastewater capacity needs. The other three options represent varying degrees of intergovernmental cooperation to address wastewater treatment needs. The results of the detailed evaluations have been documented for the Project Partners in the form of a report titled, *“Final Report – Western Wake County Regional Wastewater Treatment Studies Project – Phase I (Phase I Report).”*

2.2 Phase II Study

Beginning in October 2003, the Project Partners initiated a Phase II study effort for four wastewater management options. The Phase II study included the following tasks:

- Development of more refined implementation schedules for facilities recommended for each option;
- Evaluation of the financial and economic impacts associated with each option; and
- Evaluation of alternative organizational models for intergovernmental cooperation for the preferred wastewater management solution.

The purpose of the Phase II study effort was to develop additional information and data that would allow the Project Partners to select a preferred wastewater management solution, which the Project Partners would then work toward implementing.

2.3 Preferred Wastewater Management Solution

At the May 2004 meeting of the Project Partners, a consensus was reached to pursue the implementation of Option 10D as the preferred wastewater management solution. As Option 10D is currently proposed, regional wastewater management facilities will be constructed to serve the towns of Apex, Cary, Morrisville and Holly Springs, as well as the Wake County portion of Research Triangle Park (RTP South). The Town of Fuquay-Varina will not participate in the use, financing or constructing of these regional wastewater management facilities. Rather, the Town of Fuquay-Varina will meet its short- and long-range wastewater

capacity needs at the Town's Terrible Creek Wastewater Treatment Plant (WWTP) and Harnett County's North Harnett Regional WWTP.

3.0 Description of Organizational Models

Traditional organizational theory suggests that local governments create organizations to provide services in a manner that accomplish prescribed community goals and objectives. For municipal governments in North Carolina, community goals and objectives are generally determined through the political process and are translated into service requirements through the policy decisions of governing boards and the administrative actions of municipal managers. Service requirements are typically expressed as level of service, quality of service and cost of service.

3.1 Existing Organizational Model

Each of the local governments participating on the Project operates under the council-manager form of government. Under this form of government, the governing board is elected on a non-partisan basis, and the mayor sits as a member and serves as the presiding officer of the council. The municipal manager is appointed by the governing board, and serves as the chief executive officer for the municipal government. The key responsibilities of the municipal manager include program execution, selection of department heads, and budget preparation.

In the council-manager form of government, it is the governing board's responsibility to establish community goals and objectives, and it is the municipal manager's responsibility to implement and direct an effective and efficient organization to achieve the service expectations. The effectiveness of an organization is measured by the degree of mission accomplishment; while the efficiency of an organization is measured by the resource inputs required for achieving service or product outputs. The fewer the resource inputs required for achieving a prescribed level of service or product output, the greater the organization's efficiency.

Pursuant to North Carolina General Statute § 160A-312, local governments have the legal authority to acquire, construct, establish, enlarge, improve, maintain, own, operate, and contract for the operation of, any public enterprise such as a water and sewer utility. In addition, § 160A-312 provides local governments with the full authority to protect and regulate the water and sewer utility by adequate and reasonable rules. The North Carolina General Statutes require that the rules and regulations for the water and sewer utility be adopted by ordinance, and be enforced with all remedies available under any provision of law.

Pursuant to North Carolina General Statutes § 160A-314, local governments have the legal authority to establish and revise, from time to time, schedules of rates, fees, charges, and penalties for the use of, or the services furnished by, a local government's public enterprise, such as a water and sewer utility. The North Carolina General Statutes allow for the schedules of rates, fees, charges, and penalties to vary according to classes of service, and different schedules may be adopted for services provided outside the corporate limits of the local government.

Each local government currently maintains a water and sewer utility in conformance with North Carolina General Statutes § 160A-312 and § 160A-314.

3.2 Interlocal Agreement Model

Under this organizational model, two or more local governments will execute an interlocal agreement for either or all of them to provide a service that each is already authorized to provide by statute. This organizational model is very flexible and allows for centralized operation, maintenance and management of an urban service, while providing for local control over service levels.

There are two organizational models associated with interlocal agreements. The first model is the sales-and-purchase model, and the second model is the joint agency model.

3.2.1 Sales-and-Purchase Model

The sales-and-purchase model is authorized by North Carolina General Statute § 160A-461: *Interlocal Cooperation Authorized*. Under this organizational model, one municipality, usually the largest or most centrally located, agrees to provide a service or program to other municipalities at a negotiated price and for a negotiated duration. The interlocal agreement must be ratified by resolution by each local government before becoming a binding contract. Ownership of property, hiring of employees, and the setting of rates, fees and charges for the service are the responsibility of the municipality providing the service.

Example Application

This is the most common form of intergovernmental cooperation used in North Carolina. The Town of Morrisville and the Town of Cary are currently using this organizational model for wastewater treatment services. Under the provisions of the interlocal agreement, the Town of Cary has agreed to provide the Town of Morrisville with wastewater treatment services at the North Cary Water Reclamation Facility. The interlocal agreement stipulates the level of service to be provided, the methods for determining cost of service, and the methods for amending the interlocal agreement.

3.2.2 Joint Agency Model

The joint agency model is authorized by North Carolina General Statute § 160A-462: *Joint Agencies*. Under this organizational model, two or more local governments enter into an agreement to create a joint agency for the delivery of services associated with a public enterprise, such as wastewater pumping, conveyance, treatment and disposal facilities. It is important to note that under this organizational model, the legal title to all real property associated with the program must be held by the participating local governments individually, or jointly as tenants in common, and in such proportions as determined by the participating local governments. On an annual basis, each local government shall appropriate funds to the joint agency based on an annual budget recommendation prepared by the joint agency personnel. The annual budget recommendation shall be submitted to the governing board of each local government for approval. With regard to staffing for the joint agency, North Carolina General Statute § 160A-463: *Personnel*, allows for three options:

- 1) The participating local governments jointly appoint the officers, agents, and employees necessary to execute the program;
- 2) The joint agency appoints all personnel required to execute the program, or
- 3) One of the local governments appoints all personnel required to execute the program, and the services of these personnel shall be contracted for by the other local governments or by the joint agency.

Example Application

The Town of Apex and the Town of Cary are currently using this organizational model for water supply and treatment services. Under the provisions of the interlocal agreement, Apex and Cary have agreed to create a joint agency for the planning, permitting, design, construction, management, operation and maintenance of the Cary/Apex Water Treatment Facility, including raw water intake, pumping station and transmission pipelines. The interlocal agreement stipulates that the Town of Apex owns 23 percent of the facilities and the Town of Cary owns 77 percent of the facilities. The interlocal agreement further stipulates that the parties agree that the Town of Cary will serve as the lead agency for both local governments and be responsible of staffing, operations and maintenance, budgeting, management and administration.

3.3 Special Purpose District/Authority Model

Under this organizational model two or more local governments would work together to create a special purpose district/authority in accordance with North Carolina general statutes. Once established, the special purpose district/authority would be recognized as a

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separate and independent political subdivision within the State of North Carolina – having an independent governing body, service area boundary, set of ordinances, and schedule of rates, fees and charges.

The members of the governing board for a special purpose district/authority are appointed by the jurisdictions involved in forming the entity. The presiding officer of the governing board is designated the Chair, and the Chair is elected by a majority of the governing board members. A special purpose district/authority has powers similar to a municipality including the right to sue; issue debt; assess and collect rates, fees, and charges; exercise the right of eminent domain; and enter into interlocal agreements for services. Two alternatives have been evaluated for the special purpose district/authority organizational model. The first model is water and sewer authority, and the second model is the metropolitan sewerage district.

3.3.1 Water and Sewer Authority

Pursuant to North Carolina General Statute § 162A-3: *Procedure for Creation*, the governing body of a single county or the governing bodies of any two or more municipal local governments may organize a water and sewer authority. To create the water and sewer authority, each participating local government must prepare a resolution signifying their desire to create an authority, and a public hearing must be conducted to receive comments on the proposed resolution and the proposed articles of incorporation.

At the conclusion of the public hearing, certified copies of the resolutions, along with documentation of the public hearing, are to be submitted to the Secretary of State of North Carolina. If the Secretary of State finds that the documentation is in accordance with the requirements of North Carolina General Statute § 162A-3: *Procedure for Creation*, then the Secretary of State shall issue a certificate of incorporation under the seal of the State of North Carolina. The certificate of incorporation shall constitute the authority a public body of the State of North Carolina.

Withdrawing, or Joining, an Existing Water and Sewer Authority

Local governments may join, or withdraw from, an existing authority by preparing a resolution signifying their desire, and conducting a public hearing to receive comments on the proposed resolution. At the conclusion of the public hearing, certified copies of the resolution to join, or withdraw from, along with documentation of the public hearing, are to be submitted to the Secretary of State of North Carolina. If the Secretary of State finds that the documentation is in accordance with the requirements of North Carolina General Statute § 162A-4: *Withdrawal from, or Joining to, an Authority*, then the Secretary of State shall issue a

certificate of withdrawal, or a certificate of joinder. The certificate shall constitute the authority a public body of the State of North Carolina.

Governing Board Composition

North Carolina general statutes do not prescribe the makeup and composition of the governing board for a water and sewer authority. North Carolina general statutes simply indicate that the water and sewer authority shall consist of the number of members as may be agreed upon by the participating local governments, such members to be selected by the respective local governments.

Water and Sewer Authority Powers

Each authority is generally authorized and empowered:

- To adopt bylaws for the regulation of its affairs and the conduct of its business;
- To sue, and be sued, in its own name, plead and be impleaded;
- To issue revenue bonds of the authority to pay the costs for acquisition, construction, reconstruction, improvement, extension, enlargement or equipment;
- To fix, revise and collect rates, fees and other charges for the use of services and facilities furnished by the authority;
- To acquire lands in the name of the authority by exercising the right of eminent domain;
- To make and enter into contracts and agreements as necessary for the performance of its duties and the execution of its powers;
- To enter into contracts with the government of the United States, any political subdivision, private corporation, association or individual for the acquisition, construction, reconstruction, improvement, extension, enlargement, operation or maintenance of the system;
- To receive and accept from any federal, State or other public agency and any private agency, person or other entity, donations, loans, grants, aid or contributions of any money, property, labor or other things of value for any system component;
- To enter into contracts with any political subdivision by which the authority shall assume the payment of the principal of, and interest on, indebtedness of such subdivision;

- To adopt ordinances to regulate and control the discharge of sewage into the sewer system;
- To make special assessments against benefited property within the area served, or to be served, by the authority;
- To require the owners of developed property to connect the property to the water and sewer system and fix charges for the connections;
- To purchase real or personal property.

Example Application

The Orange Water and Sewer Authority (OWASA) is an example application of this organizational model. Before OWASA was established, water and sewer services in southeastern Orange County were provided by systems that were independently owned and operated by the Town of Chapel Hill, the Town of Carrboro and the University of North Carolina at Chapel Hill (UNC-CH). In the mid-1970s, the governing boards for Carrboro, Chapel Hill and Orange County agreed to create a water and sewer authority in accordance with general statutes. OWASA began formal operations in 1977 using the water treatment plant and wastewater treatment plant that were previously owned and operated by UNC-CH.

A nine-member board, whose members are appointed by the local governments that comprise the authority, governs OWASA. The board is responsible for establishing organizational policies, adopting ordinances and setting rates, fees and charges. The chief executive officer for OWASA is designated the Executive Director. The Executive Director is responsible for directing the activities of the 150-employee organization to implement the policies and ordinances adopted by the governing board. The composition of the governing board was not prescribed by North Carolina general statutes, and mutually agreed upon by the participating local governments. The composition of the governing board is as follows:

- Orange County – **2 members**
- Town of Carrboro – **2 members**
- Town of Chapel Hill – **5 members**

OWASA provides service for approximately 16,000 accounts. The operating revenues for FY 2003-2004 were estimated to be \$26.6 million, and the operating expenditures for the same period were estimated to be \$15.0 million. Debt service payments for OWASA total \$5.9 million per year. The current capacity of the water treatment plant is 20 mgd, and the capacity of the wastewater treatment plant is 12 mgd. OWASA's current sewer service charge

is \$6.04 per month for a 5/8-inch meter, and the sewer consumption charge is \$3.05 per 1,000 gallons.

As an independent unit of local government, OWASA must maintain a full complement of general support services for the operation and administration of the organization, including human resources, finance, purchasing, business information systems, customer service, and legal counsel. The full costs for these general support services are recovered through the schedule of rates, fees and charges.

3.3.2 Metropolitan Sewerage District

Any two or more local governments in a county may petition the local board of commissioners for the creation of a metropolitan sewerage district. The petition, along with a resolution from each local government, is to be submitted to the board of commissioners stating the necessity for the creation of the metropolitan sewer district and requesting the creation. Upon receipt of the petitions and resolutions requesting the creation of a metropolitan sewerage district, the chair of the board of commissioners shall notify the North Carolina Environmental Management Commission (EMC) and request that the EMC hold a public hearing with the board of commissioners concerning the creation of a metropolitan sewerage district.

If, after the public hearing, the EMC and the board of commissioners determine that the creation of a metropolitan sewerage district is warranted, the EMC will adopt a resolution creating the entity. The resolution will be distributed to the board of commissioners, as well as to each local government included in the metropolitan sewer district. The resolution shall constitute the metropolitan sewerage district a public body of the State of North Carolina.

Joining an Existing Metropolitan Sewerage District

A local government may join an existing metropolitan sewerage district by filing a resolution with the district board. If the district board favors the addition of the local government, then the district board shall notify the board of commissioners, and submit a report to the board of commissioners and the EMC detailing the plans to add the local government and expand the service area boundaries of the district.

Upon receipt of the report detailing the plans to add a local government, the chair of the board of commissioners shall request the EMC to hold a joint public hearing with the board of commissioners concerning the addition of a local government and the expansion of the service area boundary. If, after the public hearing, the EMC and the board of commissioners determine that the expansion of the service area boundary is warranted, the EMC will adopt a resolution adding the new local government. The resolution will be distributed to the board

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of commissioners, as well as to each local government included in the district. The resolution shall constitute the metropolitan sewerage district a public body of the State of North Carolina.

Governing Board Composition

North Carolina general statutes prescribe the makeup and composition of the governing board for a metropolitan sewerage district. If a district lies entirely within one county with a population of 25,000 or more, the board of commissioners of the county shall appoint to the district board three members who are qualified voters residing within the district. In addition, the governing board of each local government included in the district shall each appoint one member to the district board. However, if any local government within the district shall have a population greater than that of all other local governments within the district, then the governing body of that local government shall appoint three members to the governing board.

Metropolitan Sewerage District Powers

Each district shall be authorized and empowered:

- To adopt bylaws for the regulation of its affairs and the conduct of its business not in conflict with this or other law;
- To sue and be sued in its own name, plead and be impleaded;
- To issue general obligation bonds and revenue bonds of the district to pay for the costs of the sewerage system;
- To fix, revise and collect rents, rates, fees and other charges for the use of the services and facilities furnished by the district;
- To cause taxes to be levied and collected upon all taxable property within the district sufficient to meet the obligations of the district;
- To acquire property by exercising the right of eminent domain;
- To make and enter into contracts and agreements as necessary for the performance of its duties and the execution of its powers;
- To receive and accept from any federal, State or other public agency and any private agency, person or other entity, donations, loans, grants, aid or contributions of any money, property, labor or other things of value for the sewer system;

- To adopt ordinances to regulate and control the discharge of sewage into the sewer system;
- To require the owners of developed property to connect the property to the sewer system and fix charges for the connections;
- To do all acts and things necessary or convenient to carry out the powers granted by this Article;
- To assume all outstanding indebtedness of any local government in the district incurred for sewer system facilities, subject to approval by a majority of the qualified voters of the district at an election;
- To receive advance funds from any local government in the district in connection with the creation of the district and to provide for the preliminary expenses of the district.

Example Application

One of the oldest and largest examples of this organizational model is the Metropolitan Sewerage District (MSD) of Buncombe County (District). The MSD of Buncombe County was formed in 1962 to address public health issues related to the discharge of raw sewage into the French Broad River and its tributaries. The District was initially formed to finance, construct, own and operate approximately 19 miles of wastewater conveyance system and a 25 mgd wastewater treatment facility.

An eleven-member board, whose members are appointed by the local governments that comprise the district, governs the MSD of Buncombe County. The board is responsible for establishing organizational policies, adopting ordinances and setting rates, fees and charges. The chief executive officer for the MSD of Buncombe County is designated the General Manager. The General Manager is responsible for directing the activities of the 158-employee organization to implement the policies and ordinances adopted by the governing board. The composition of the governing board is prescribed by general statutes, and is as follows:

- County of Buncombe – **3 members**
- City of Asheville – **3 members**
- Town of Biltmore Forest – **1 member**
- Town of Black Mountain – **1 member**
- Town of Montreat – **1 member**
- Town of Weaverville – **1 member**

- Woodfin Sanitary Water and Sewer District – **1 member**

The District provides service for approximately 39,800 accounts. The operating revenues for FY 2001-2002 were \$22.1 million, and the operating expenditures for the same period were \$11.0 million. Debt service payments for the District total \$5.5 million per year. The District's current sewer service charge is \$4.60 per month for a 5/8-inch meter, and the sewer consumption charge is \$4.00 per 1,000 gallons. In addition, District customers also pay a monthly charge of \$1.75 per month to recover the costs incurred by the water utilities for billing for District services, and collecting revenues on behalf of the District.

In 1990, the District executed a series of utility merger agreements to acquire the collections systems for each unit of local government that discharge to the District. The District currently owns and operates approximately 900 miles of collection and conveyance facilities, and a 40 mgd wastewater treatment facility.

As an independent unit of local government, the MSD of Buncombe County must maintain a full complement of general support services for the operation and administration of the organization, including human resources, finance, purchasing, business information systems, customer service, and legal counsel. The full costs for these general support services are recovered through the schedule of rates, fees and charges.

4.0 Application of Organizational Models

The Project Partners have agreed to evaluate alternative organization models for intergovernmental cooperation because it is believed that such cooperation will be beneficial for each local government. In evaluating the application of alternative organizational models for intergovernmental cooperation, the basic issues to address include:

- Who will be the lead agency responsible for service delivery?
- What will be the scope of service delivery?
- What will be the costs for service delivery, and how will costs be allocated?
- What is the schedule for service delivery?

Recognizing that changes in environmental conditions (social, political, financial, regional, and regulatory) will present both challenges and opportunities for the Project Partners, there is a need to select an organizational model with sufficient flexibility that will allow for continued efficient and effective service delivery under varying environmental conditions.

4.1 Lead Agency Responsible for Service Delivery

Regardless of which organizational model is selected, it is expected that delivery of the regional facilities and services will be provided by a lead agency of some form. The lead agency can be one of the local government participants, a joint agency created by the local governments, or a special purpose district/authority created by the local governments. Once the lead agency has been designated, each local government will execute an interlocal agreement for the delivery of the facilities and services.

4.1.1 Service Delivery by Special Purpose District/Authority

The objective of this organizational model will be to create an organization that will have an independent governing body, staff, service area boundary, set of ordinances, and schedule of rates, fees and charges.

With regard to staffing, the special purpose district/authority could either hire independent staff for administration, management, operations and maintenance, or could contract with one of the participating local governments for some, or all, of these services. Once the special purpose district/authority has been established, the participating local governments will execute separate interlocal agreements with the district/authority for the delivery of the facilities and services.

The special purpose district/authority will charge for service as bulk service using a series of master meters installed for each local government, or directly to individual customers by assessing a service charge and consumption charge on the water and sewer bills generated by each local government. If the service is to be charged directly to individual customers, then the interlocal agreement will need to include provisions for transferring funds collected by the local governments on behalf of the special purpose district/authority.

4.1.2 Joint Agency

The objective of this organizational model will be to capture the efficiencies available from an existing service delivery organization as opposed to creating a new or independent organization. To establish the joint agency it will be necessary for the participating local governments to prepare an interlocal agreement that, at a minimum, will specify the following:

- 1) The purpose of the agreement;
- 2) The duration of the agreement;
- 3) The composition, organization, nature, and powers conferred on the joint agency;

- 4) The manner of appointing the personnel necessary to deliver the regional facilities and services;
- 5) The method of financing the permitting, design, construction, operation, maintenance, management and administration of the regional facilities.
- 6) The methods to be used for determining the pro-rata proportions allocated to each local government for the total direct and indirect costs associated with the regional wastewater management facilities;
- 7) The formula for allocating the ownership of real property associated with the regional wastewater management facilities, and the procedures for the disposition of such property when the contract or agreement expires or is terminated;
- 8) The methods for allowing local governments to withdraw from the joint agency, as well as methods to allow new local governments to join the joint agency;
- 9) The methods for amending the agreement; and
- 10) The methods for terminating the agreement.

4.2 Scope of Service Delivery

It is anticipated that each local government will continue to own, operate, and maintain its existing wastewater infrastructure facilities, and be responsible for all activities related to water and sewer billing, revenue collection, management, administration and customer service. For example, it is not anticipated that the local governments will implement an organizational model for intergovernmental cooperation that will result transferring responsibility for the Apex Middle Creek WWTP, the Holly Springs Utley Creek WWTP, the South Cary WRF or the North Cary WRF to a new entity. For the purposes of this evaluation, it is assumed that responsibility for these treatment facilities, and the wastewater collection and conveyance facilities that deliver wastewater to them, will remain with the individual local governments.

The scope of the facilities and services that will be subject to intergovernmental cooperation will include:

- The regional raw wastewater pumping stations and conveyance facilities;
- The regional water reclamation facility;
- The regional biosolids management facility;
- The effluent pumping and conveyance system; and

- The reclaimed water system.

The interface between the existing facilities to be retained by each local government and the new facilities to be provided through intergovernmental cooperation will be the raw wastewater pumping stations. Accordingly, each local government will be responsible for permitting, planning, financing, designing and constructing all facilities required to deliver their respective wastewater flows to the regional raw wastewater pumping stations.

The scope of service delivery will be segregated into two phases. For Phase I, the scope of service delivery includes securing permits, acquiring land and managing the design, construction and startup of the regional wastewater management facilities. The scope of service delivery for Phase II will commence upon commissioning and startup of the wastewater facilities, and will include the staffing, management, administration, operations and maintenance of the regional wastewater management facilities.

4.3 Costs for Service Delivery

It is anticipated that each local government will continue to operate an enterprise fund for its respective water and sewer utility. As such, each local government will continue to adopt a balanced water and sewer utility budget on an annual basis; and the budget will be prepared to demonstrate that forecasted operating revenues are equal to, or exceed, forecasted operating expenditures. It is further anticipated that each local government will continue to maintain an independent schedule of rates, fees and charges, and that the schedule will be designed to fully recover the total direct and indirect costs associated with providing water and sewer services for the local government's service area.

Consistent with the scope of service delivery, the costs for service delivery will be segregated into two phases. Phase I costs will be those costs related to land acquisition, permitting, design and construction of the regional wastewater management facilities. Phase II costs will be those costs related to management, administration, operations and maintenance of the regional wastewater management facilities.

For both phases, it is understood that the local governments will use revenues from their water and sewer enterprise funds to contribute their pro-rata proportions of the costs for capital facilities constructed and the level of service received. It will be the responsibility of the lead agency to provide timely and accurate revenue requirement forecasts to each local government for costs related to the management, administration, operations and maintenance of the regional wastewater management facilities. The local governments will integrate this information into their respective budget planning processes for their water and sewer enterprise funds. Each local government will have the autonomy to adjust their individual

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schedule of rates, fees and charges as necessary to support the revenue requirements of their water and sewer enterprise funds.

Phase I Costs

The Phase I costs will be those costs related to land acquisition, permitting, design and construction of the regional wastewater management facilities. Regardless of which organizational model is selected, it is expected that each local government will be required to adjust their existing schedule of rates, fees and charges in order to generate sufficient revenues to finance their pro-rata proportion of the costs. For Phase I, it is anticipated that each local government will use some combination of the following funding sources for land acquisition, permitting, design and construction:

- 1) Pay-As-You-Go
- 2) SRF Low-Interest Loan
- 3) Revenue Bonds

It is understood that a local government cannot access SRF loans and revenue bonds until the financial condition, and the debt service repayment plan, of the local government is reviewed and approved by the Local Government Commission (LGC). Prior to moving forward with final design and construction, it will be necessary for the governing board of each local government to adopt a rate schedule that meets with LGC approval, and will generate sufficient revenues to fund each local government's pro-rata proportion of the Phase I costs.

Phase II Costs

The Phase II costs will commence upon commissioning and startup of the wastewater facilities, and will include the total direct and indirect costs associated with the management, administration, operations and maintenance of the regional wastewater management facilities. The principal costs items for Phase II will include, but not be limited to, personnel services, operating expenses, equipment renewal and replacement, materials, tools, supplies and outsource services. Some of the costs will be fixed and unrelated to the level of service provided, and some of the costs will be variable and directly related to the level of service provided.

On an annual basis, the lead agency will present an operating budget to the local governments for the total direct and indirect costs required for the management, administration, operations and maintenance of the regional wastewater management facilities.

4.4 Schedule for Service Delivery

Based on current wastewater flow projections, it is planned that the regional wastewater management facilities will be constructed in three phases. The first phase of the facilities will be placed into service January 1, 2011 at a capacity of 14 mgd. The second phase of the facilities will be placed into service July 1, 2017, to provide a total capacity of 21 mgd, and the third phase of the facilities will be placed into service July 1, 2023 to provide a total capacity of 32 mgd.

In advance of construction for the first phase of facilities, it will be necessary for the lead agency to complete a number of activities, including land acquisition, NPDES permitting and final design.

5.0 Findings and Recommendations

Fortunately, North Carolina general statutes provide a wide range of organizational models for intergovernmental cooperation for sewer service. The two options that have been evaluated and presented in this TM are the interlocal agreement model and the special purpose district/authority model.

5.1 Interlocal Agreement Model

Local governments generally elect to pursue the interlocal agreement model when it is demonstrated that the existing delivery organizations for water and sewer service are efficient and effective, and there is confidence that the efficiencies and effectiveness can be translated to larger service areas and more complex systems. For the local governments participating in this project, such confidence is warranted since each local government currently owns, operates and maintains components of a sewer system, including wastewater pumping stations, water reclamation facilities, biosolids management facilities, and effluent disposal systems.

5.2 Special Purpose District/Authority Model

Conversely, local governments generally elect to pursue the special purpose district/authority model when local conditions make it difficult to use existing delivery organizations for water and sewer service. Such conditions include, but are not limited to, the following:

- Insufficient or unfavorable capital funding is available for the construction of the facilities.

- Concerns that one or more governing boards could unfavorably influence the level of service, quality of service and cost of service provided to the participating local governments.
- Inadequate financial, management and technical expertise available within each local government to successfully deliver the facilities and services.

5.3 Recommendation

For the participating local governments, the best organizational model for the regional wastewater management facilities is the one that is the most efficient and effective in delivering sewer services. While there are advantages associated with the creation of a special purpose district/authority, local conditions do not warrant the pursuit of an independent unit of local government for the management, administration, operation and maintenance of the regional wastewater management facilities. Given that the participating local governments currently operate efficient and effective water and sewer delivery organizations, it is recommended that local governments pursue the interlocal agreement model and work together to create a joint agency. This will be the most efficient and effective organizational model for the delivery of the required sewer services. The features of the recommended organizational model include:

- Reduced unit cost of service for capital facilities, operations and maintenance;
- Improved quality and reliability of service;
- Local decision-making for level-of-service requirements;
- Local decision-making for establishing rates, fees, charges;
- Cooperative decision-making for facility staffing, operations and maintenance;
- Cooperative decision-making for capital improvement planning and implementation; and
- Cooperative decision-making for annual budget preparation.