CONTRACT NO. 2019000159

AGREEMENT BETWEEN CHARLOTTE COUNTY
and
McKIM & CREED, INC.
for
BURNT STORE WATER RECLAMATION FACILITY REPLACEMENT/EXPANSION

THIS AGREEMENT (hereinafter the "Agreement"), is made and entered into by and between CHARLOTTE COUNTY, a political subdivision of the State of Florida, 18500 Murdock Circle, Port Charlotte, Florida 33948-1094 (hereinafter the "County") and McKIM & CREED, INC., 1730 Varsity Drive, Venture IV Building, Suite 500, Raleigh, North Carolina 27606-2689 (hereinafter the "Consultant").

WITNESSETH

WHEREAS, the County has determined that it is necessary to retain a Consultant to provide professional services for the preliminary engineering, design and construction services for the replacement/expansion of the Burnt Store Road Water Reclamation Facility in Punta Gorda, Florida; and

WHEREAS, the Consultant has reviewed RFP No. 2019000159 required pursuant to this Agreement and is qualified, willing and able to provide and perform all such services in accordance with its terms; and

WHEREAS, the County, through a selection process conducted in accordance with the requirements of law and County policy, has determined that it would be in the best interest of the County to award a contract to Consultant for the rendering of those services described in the RFP 2019000159 and the Scope of Services, incorporated herein.

NOW, THEREFORE, the County and the Consultant, in consideration of the mutual covenants contained herein, do agree to implement the design of the Burnt Store Road Water Reclamation Facility Replacement/Expansion (hereinafter, the "Project") as follows:

ARTICLE 1.
INCORPORATION OF DOCUMENTS

1.1. RFP No. 2019000159, issued by the County on December 17, 2018 and consisting of pages 1 through and including 22, together with a map of the Burnt Store Water Reclamation Facility Service Area; Addendum #1 to RFP 2019000159 issued by the County on December 20, 2018; and the Proposal submitted by Consultant dated January 22, 2019, all filed with the Clerk of the Circuit Court of Charlotte County, Minutes Division, as RFP No. 2019000159, are hereby specifically incorporated into and made a part of this Agreement as if same had been set forth at length herein. The Scope of Services containing the Project Services, Fees and Timeline, is attached hereto as **Exhibit A** and is specifically incorporated into and made a part of this Agreement.

1.2. In the event of any conflict between the documents constituting this Agreement, the documents shall be given precedence in the following order:

1) This Agreement including the Exhibits attached hereto;

2) RFP No. 2019000159, with Addenda;

3) The Proposal submitted by Consultant dated January 22, 2019.

ARTICLE 2.
CONSULTANT'S SCOPE OF SERVICES

2.1. Consultant agrees to perform all the services and provide all the materials for the Burnt Store Road Water Reclamation Facility Replacement/Expansion Project as described in **Exhibit A,** Scope of Services.

2.2. Consultant agrees to provide its services and all materials for the Project described in the **Exhibit A** for the fees contained in **Exhibit A**, Budget. The Consultant shall make no claims for additional compensation or damages owing to suspensions, delays, or hindrances which arise during the performance of this Agreement. Such suspensions, delays or hindrances may only be compensated for by an extension of time as the County may decide. However, such extension shall not operate as a waiver of any other rights of the County.

2.3. In the event that County desires Consultant to perform any additional services related to the Design project not specifically contained in **Exhibit A**, Scope of Services, the parties shall enter into an amendment to this Agreement to provide for the provision of such additional services by Consultant as may be determined by the BOCC and payment therefore by County.

2.4. Consultant agrees to provide its services and materials as contained in the Scope of Services in the times allowed for performance of the Project as set forth in **Exhibit A**, Schedule. The Consultant shall make no claims for additional compensation or damages owing to suspensions, delays, or hindrances which arise during the performance of this Agreement. Such suspensions, delays or hindrances may only be compensated for by an extension of time as the County may decide. However, such extension shall not operate as a waiver of any other rights of the County.

ARTICLE 3.
COMPENSATION AND PAYMENT FOR CONSULTANT 'S SERVICES

3.1. County shall pay Consultant for those tasks and services provided in **Exhibit A** actually performed by Consultant and in accordance with **Exhibit A**. The total payment to Consultant shall not exceed Three Million Five Hundred Twenty-Two Thousand Six Hundred Ninety Dollars and no cents ($3,522,690.00) for Consultant's services under this Agreement, performed in accordance with the Scope of Services and this Agreement.

3.2. Payment for services rendered by Consultant shall be made on a monthly basis in proportion to the percentage completed of those tasks listed in the Scope of Services. Percentage of services completed shall be subject to review and approval by the County Director of Utilities, or his/her designee.

3.3. Consultant shall submit all billings for payment of services rendered on a monthly basis to the County Purchasing Division for processing. Billings shall be detailed as to the nature of the tasks and services performed and shall refer to the specific tasks listed in the Scope of Services that were actually performed by Consultant. Billings shall include a summary of any amounts previously billed and any credits for amounts previously paid.

3.4. Consultant acknowledges that each billing must be reviewed and approved by the County Director of Utilities, or his/her designee. Should the Director of Utilities, or his/her designee, determine that the billing is not commensurate with services performed, work accomplished or hours expended, Consultant shall adjust billing accordingly. However, Consultant shall be entitled to payment of any portion of a billing not in dispute.

3.5. County shall pay Consultant's monthly billings in accordance with Sections 218.70 through 218.80 Florida Statutes, the Local Government Prompt Payment Act.

ARTICLE 4.
CONSULTANT'S RESPONSIBILITIES

4.1. Consultant shall perform or furnish consulting and related services to a level of technical skill, ability, and diligence customarily provided by an experienced professional in his or her field of expertise when rendering the same services, and in accordance with sound principles and practices generally acknowledged by professionals in his or her field of expertise, as represented to the County, both orally and in writing, to be possessed by Consultant, all in accordance with the standards contained elsewhere in this Agreement and in accordance with generally accepted standards of professional consulting practice and with the laws, statutes, ordinances, codes, rules and regulations governing Consultant's profession. The same standards of care shall be required of any subconsultant or subcontractor engaged by Consultant.

4.2. Consultant shall, without additional compensation, correct and revise any errors, omissions, or other deficiencies in its work product, services, or materials arising from the negligent act, error or omission of Consultant or any subconsultant or subcontractor engaged by Consultant for one year after the completion of Consultant's services under this Agreement. The foregoing shall be construed as an independent duty to correct rather than a waiver of County's rights under any applicable statute of limitations. County review of, approval of, acceptance of, or payment for any of Consultant's work product, services, or materials shall not be construed to operate as a waiver of any of County's rights under this Agreement, or cause of action County may have arising out of the performance of this Agreement.

ARTICLE 5.
OWNERSHIP AND USE OF DOCUMENTS

5.1. All documents, data, studies, surveys, analyses, sketches, tracings, specifications, plans, designs, design calculations, details, computations, drawings, maps, models, photographs, reports, and other documents and plans resulting from Consultant's services under this Agreement are the property of and shall be delivered to County without cost, restriction or limitation as to use regardless of the format of the document (paper or electronic). However, any use subsequent for or other than the specific project for which such items were created, shall be at sole risk of County.

5.2. Consultant agrees that any software, computer systems and databases used for providing the documents necessary to this Agreement shall be compatible with existing County software and systems. It is anticipated that the software utilized will be run on windows-based PC's and will consist of AutoCAD release 2010, ICPR, Microsoft Office 365 2016, and Adobe Reader 10.

ARTICLE 6.
COUNTY'S RESPONSIBILITIES

6.1. County shall perform the responsibilities contained in this Article 6 in a timely manner so as not to delay the services of Consultant.

6.2. County shall furnish to Consultant, upon request of Consultant and at County expense, all existing studies, reports and other available data pertinent to the services to be performed under this Agreement which are within the County's possession. However,

Consultant shall be required to evaluate all materials furnished hereunder using reasonable professional judgment before relying on such materials.

6.3. County shall provide reasonable access and entry to all public property required by Consultant to perform the services described in this Agreement. All such access and entry shall be provided at County expense. County shall also use reasonable efforts to obtain permission for reasonable access and entry to any private property required by Consultant to perform the services described in this Agreement.

ARTICLE 7.
TERM / TERMINATION

7.1. The term of this Agreement shall begin on the date it is signed by both parties and shall be completed in accordance with the schedule attached hereto as **Exhibit A**, Schedule. Consultant's services shall be deemed complete when Consultant provides all products or services contained in the Scope of Services and required under this Agreement, and County accepts such services and products as satisfactory, unless otherwise terminated in accordance herewith.

7.2. The Consultant shall be responsible for notifying the County promptly whenever a delay is anticipated or experienced, including a delay in approval by any governmental agency having jurisdiction over the Project. The County shall allow the Consultant to extend the Project Schedule for valid, documented delays. The County shall be the sole determiner of the validity of the delays.

7.3. The County shall have the right at any time upon thirty (30) calendar days written notice to the Consultant to terminate the services of the Consultant and, in that event, the Consultant shall cease work and shall deliver to the County all documents, (including reports, designs, specifications, and all other data) prepared or obtained by the Consultant in connection with its services. The County shall, upon receipt of the aforesaid documents, pay to the Consultant, and the Consultant shall accept as full payment for its services, fees for all tasks completed in accordance with Scopes of Services.

7.4. In the event that the Consultant has abandoned performance under this Agreement, then the County may terminate this Agreement upon three (3) calendar day's written notice to the Consultant indicating its intention to terminate. The written notice shall state the evidence indicating the Consultant's abandonment. Payment for services performed prior to the Consultant's abandonment shall be as stated Section 3 above.

ARTICLE 8.
NO CONTINGENT FEES

8.1. Consultant certifies that it has not employed or retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for Consultant any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For the breach or violation of this provision, County shall have the right to terminate the Agreement without liability at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.

ARTICLE 9.
NOTICES

9.1. Any notice required or permitted to be sent hereunder shall be sent certified mail, return receipt requested, to the parties at the addresses listed below:

Consultant: McKim & Creed, Inc.

Name: Robert Garland, PE, ENV SP
Principal/Project Manager
Address: McKim & Creed, Inc.
551 North Cattlemen Road, Suite 106
Sarasota, Florida 34232

County: Purchasing Division

Name: Kimberly A. Corbett
Senior Division Manager
Address: Charlotte County Purchasing
18500 Murdock Circle, Suite 344
Port Charlotte, Florida 33948

9.2. Contractor shall immediately notify County of any changes in address.

ARTICLE 10.
TRUTH-IN-NEGOTIATION CERTIFICATE

10.1. In accordance with Section 287.055 of the Florida Statutes and Charlotte County Resolution 2003-059, signature of this Agreement by Consultant shall act as the execution of a truth-in-negotiation certificate stating that wage rates and other factual unit costs supporting the compensation of this Agreement are accurate, complete, and current at the time of contracting. The original contract price and any additions thereto shall be adjusted to exclude any significant sums by which County determines the contract price was increased due to inaccurate, incomplete, or noncurrent wage rates and other factual unit costs. All such contract adjustments shall be made within one (1) year following the end of this Agreement.

ARTICLE 11.
ASSIGNMENT

11.1. This Agreement, or any interest herein, shall not be assigned, transferred or otherwise encumbered, under any circumstances by Consultant without the prior written consent of County. Further, no portion of this Agreement may be performed by subcontractors or subconsultants without written notice to and approval of such action by County.

ARTICLE 12.
EXTENT OF AGREEMENT / SEVERABILITY / MODIFICATION

12.1. This Agreement represents the entire and integrated agreement between the County and Consultant and supersedes all prior negotiations, representations or agreement, either written or oral.

12.2. In the event any provision of this Agreement shall be held invalid and unenforceable, the remaining provisions shall be valid and binding upon the parties. One or more waivers by either party of any breach of any provision, term, condition or covenant shall not be construed by the other party as a waiver of any subsequent breach.

12.3. No modification, amendment or alteration in the terms or conditions contained herein shall be effective unless contained in a written document executed by both parties.

12.4. This is a nonexclusive contract. The County has the right to enter into contracts with other consultants for the providing of any services.

ARTICLE 13.
GOVERNING LAW / VENUE

13.1. This Agreement shall be governed and construed in accordance with Florida law. In the event any litigation arises between the parties in connection with this Agreement, venue for such litigation shall lie exclusively in Charlotte County, Florida.

ARTICLE 14.
INDEPENDENT CONTRACTOR STATUS

14.1. Consultant is an independent contractor and is not an employee, servant, agent, partner or joint venturer of the County. Neither the County nor any of its employees shall have any control over the conduct of Consultant or any of Consultant's employees, except as herein set forth, and Consultant expressly warrants not to represent at any time or in any manner that Consultant or any of Consultant's agents, servants or employees are in any manner agents, servants or employees of the County. It is understood and agreed that Consultant is, and shall at all times remain as to the County, a wholly independent contractor and that Consultant's obligations to the County are solely as prescribed by this Agreement.

ARTICLE 15.
AUDIT AND RECORDS REQUIREMENTS

15.1. Consultant shall maintain books, records, documents, and other evidence directly pertaining to or connected with the services under this Agreement which shall be available and accessible at Consultant's local offices for the purpose of inspection, audit, and copying during normal business hours by the County, or any of its authorized representatives. Such records shall be retained for a minimum of five (5) years after completion of the services. Prior to destruction of any records, the Consultant shall notify the County and deliver to the County any records the County requests. Consultant shall require all subcontractors to comply with the provisions of this paragraph by insertion of the requirements hereof in a written contract agreement between Consultant and the subcontractor.

15.2 If the records are unavailable locally, it shall be the Consultant's responsibility to insure that all required records are provided at the Consultant's expense including payment of travel and maintenance costs incurred by the County's authorized representatives or designees in accessing records maintained out of the County. The direct costs of copying records, excluding any overhead cost, shall be at the County's expense.

15.3 Pursuant to Section 119.0701 of the Florida Statutes, Contractors acting on behalf of the County must comply with the public records laws, specifically: a) keep and maintain public records required by the County to perform the contracted services; b) upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 of the Florida Statutes or as otherwise provided by law; c) ensure that public records that are exempt or confidential from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract; and d) upon completion of the contract, keep and maintain all public records required by the County to perform the service, and meet all applicable requirements for retaining public records.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO RETAIN AND PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE COUNTY'S

CUSTODIAN OF PUBLIC RECORDS AT (941) 743-1441, E-MAIL TO RECORDS@CHARLOTTECOUNTYFL.GOV, 18500 MURDOCK CIRCLE, BLDG. B, Suite 200, PORT CHARLOTTE, FLORIDA 33948.

ARTICLE 16.
INDEMNIFICATION

16.1. Consultant shall indemnify and hold harmless the County, its Commissioners, officers, employees, agents and volunteers from and against liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the Consultant and other persons employed or utilized by the Consultant in the performance of this Agreement.

ARTICLE 17.
EMPLOYEE RESTRICTIONS

17.1. Charlotte County will not intentionally award publicly-funded contracts to any Consultant who knowingly employs unauthorized alien workers, constituting a violation of the employment provisions contained in 8 U.S.C. Section 1324a(e) [Section 274A(e) of the Immigration and Nationality Act ("INA")]. The County shall consider employment by Consultant, or any subconsultant or subcontractor of Consultant, of unauthorized aliens a violation of Section 274A(e) of the INA. Such violation by the Consultant or any subconsultant or subcontractor of Consultant of the employment provisions contained in Section 274A(e) of the INA shall be grounds for termination of this Agreement by the County.

17.2. Consultant shall incorporate this provision into all contracts with subcontractors or subconsultants.

ARTICLE 18
SCRUITNIZED VENDORS

18.1. Pursuant to Section 287.135(3)(b) of the Florida Statutes, Charlotte County may, at its sole option, terminate this Agreement if the Contractor is found to have been placed on the *Scrutinized Companies that Boycott Israel List*, or is engaged in a boycott of Israel.

18.2. Pursuant to Section 287.135(3)(a)4 of the Florida Statutes, Charlotte County may, at its sole option, terminate any Agreement valued at $1Million or more if the Contractor is found to have submitted a false certification, has been placed on the *Scrutinzed Companies with Activities in Sudan List*, or the *Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List*, or has been engaged in business operations in Cuba or Syria or a boycott of Israel.

IN WITNESS WHEREOF, the parties hereto have caused the execution of these premises as of the date and year written below.

WITNESSES:

Signed By: _____

Print Name: Blake Peters

Date: 7-23-19

Signed By: _____

Print Name: Michael Nixon

Date: 7-23-19

McKIM & CREED, INC.

Signed by: _____
Robert Garland, PE, ENV SP

Title: Vice President/Regional Manager

Date: 7/23/2019

BOARD OF COUNTY COMMISSIONERS OF CHARLOTTE COUNTY, FLORIDA

By: _____
Kenneth W. Doherty, Chairman

Date: 7/17/19

ATTEST:
Roger D. Eaton, Clerk of the Circuit Court and Ex-Officio Clerk of the Board of County Commissioners

By: _____
Deputy Clerk

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

By: _____
Janette S. Knowlton, County Attorney
LR 19-0400

Exhibit List:
Exhibit A –Scope of Services, Budget and Schedule

EXHIBIT "A"

July 13, 2019

McKIM & CREED, INC.
CHARLOTTE COUNTY UTILITIES DEPARTMENT
BURNT STORE WATER RECLAMATION FACILITY REPLACEMENT/EXPANSION
SCOPE OF SERVICES

BACKGROUND:

The Burnt Store Water Reclamation Facility (WRF) services approximately 3,185 properties and a population of approximately 6,800 residents. Services are concentrated in south Charlotte County and portions of northern Lee County (together, the South County Service Area). As the South County Service Area continues to grow, additional treatment capacity will be required.

Effluent from the existing WRF is either pumped into the reclaimed water system, into an on-site effluent percolation pond, or disposed via two (2) deep injection wells. A reclaimed water master plan was completed in 2005 and does not reflect current development trends. The 2005 Reclaimed Water Master Plan needs to be updated to optimize reuse options, offset the use of potable water for irrigation purposes, and to protect Charlotte County's (County's) natural resources.

Several large developments are either underway or planned in the South County Service Area that will impact wastewater treatment and reclaimed water demands. In addition, the County is planning to replace over 20,000 onsite systems pursuant to the recently updated Sewer Master Plan and in compliance with the Comprehensive Plan. A phased approach for expanding the wastewater treatment capacity and optimizing the use of reclaimed water is necessary to maintain levels of service and protect the County's natural resources.

The objective of this project is to develop a roadmap for providing reliable, cost-effective, and sustainable treatment and reuse infrastructure for the South County Service Area.

RFP No. 2019000159 is incorporated into this scope by reference and will be further refined as part of the planning and design processes. The County has retained McKim & Creed, Inc. (Engineer) to serve as the Engineer of Record for the project.

SCOPE OF SERVICES

Multiple planning and preliminary engineering reports will be required to develop consensus-based decisions on recommended treatment and reuse solutions. Therefore, this project will be performed in three distinct, overlapping, and integrated phases: Phase 1 – Master Planning and Preliminary Engineering; Phase 2 – Design Services; and Phase 3 – Construction Phase Services. Phase 4 – Supplemental Services is also included should the County request the Engineer perform additional engineering services associated with the project that are not included in Phases 1 through 3 as described below.

Scope items for Phases 2 and 3 will ultimately be based on recommendations from Phase 1. Assumptions have been made to develop a scope and fee for Phase 2 and 3. The scopes and fees will be refined and revised based on actual Phase 1 recommendations.

Task items are identified in this scope of services. If during the execution of the work it is determined that additional work or assistance is necessary to complete the project, this can be addressed as additional services at that time and be provided as an addendum or through use of supplemental services.

PHASE 1 – MASTER PLANNING AND PRELIMINARY ENGINEERING

The County's objective is to overlap Phases 1, 2, and 3 to optimize services and minimize the overall project schedule. The scope for Task 1 – Project Initiation, Management, and Administration, will cover all three (3) phases to facilitate project delivery and achieve the County's objectives. This will allow the team to proceed with critical planning, design, and construction phase tasks once consensus-based decisions are made and the team has received direction from the County to proceed.

TASK 1 - PROJECT INITIATION, MANAGEMENT AND ADMINISTRATION

1.1 Project Set-Up

The Engineer will develop project documents and filing systems for the project that will include project set-up, Project Management Plan, QA/QC Plan, hard and electronic files, sub-contract agreements and will conduct an internal kick-off meeting.

An electronic SharePoint site will also be set up to facilitate the transfer and storage of project files between team members, including the County.

1.2 Kick-Off Meeting and Site Investigation

The Engineer will conduct a project Kick-Off Meeting with the project team and County staff to review project goals, scope of work, project schedule, communication

procedures, and administrative issues. Following the meeting, the Engineer will prepare summary meeting notes and distribute to the attendees.

On the same day of the Kick-Off Meeting, the Engineer will perform a site visit to the existing WRF, accompanied by operations staff. (Note: It is preferred that the Project Kick-Off Meeting be conducted at the Burnt Store WRF to better facilitate the site visit and meeting with operations staff.) Condition assessments will be performed and will be limited to visual observations. Intrusive or destructive investigations will not be performed during the initial field investigations. Discussions with operations staff will be conducted to obtain information regarding operation and maintenance concerns and other institutional knowledge of the facilities.

1.3 Stakeholder Workshops

The Engineer will conduct a series of stakeholder workshops throughout the Master Planning and Preliminary Engineering Phase and the Design Services Phase. The intent of the workshops is to engage stakeholder groups, define stakeholder expectations, develop consensus-based decisions, and promote teamwork and collaboration.

Three (3) stakeholder workshops will be conducted in Phase 1 - Master Planning and Preliminary Engineering: one (1) for general master planning efforts, one (1) for the evaluation of treatment technologies, and one (1) for site identification and evaluation. The intent is to conduct the initial workshops within 60 days of the Notice to Proceed (NTP) to review viable options for each task and the remaining workshops within 120 days of the NTP to review draft recommendations.

Three (3) stakeholder workshops will be conducted in Phase 2 – Design Services: one (1) after submitting the preliminary engineering report, one (1) after submitting the 60% design and one (1) after submitting the 90% design. The purpose for the design phase stakeholder workshops is to review status of the design, County comments and questions, and design decisions made. Following each stakeholder workshop, the Engineer will prepare summary meeting notes and distribute to the attendees.

1.4 Board of County Commissioners Workshop

The Engineer will assist the County in preparing for and presenting project updates to the Board of County Commissioners (BCC). The intent is to provide the BCC with a summary of options and recommendations from the master planning and preliminary engineering tasks at the October 2019 workshop. A BCC State Revolving Fund (SRF) workshop/public meeting will also be conducted at a future meeting. The County will be responsible for noticing all public meetings.

1.5 Status Reports and Project Administration

The Engineer will provide project status letter and schedule update to summarize the progress of the work. The summary letter will accompany the monthly invoices.

1.6 Progress Meetings

The Engineer will conduct up to eighteen (18) monthly progress meetings (6 during Phase 1 and 12 during Phase 2) with the County to review the progress of the work, outstanding items, data requests, project schedule and other project issues; and to receive input from County staff, provide responses, and discuss options. Progress meetings will be conducted at the County's office with support staff in attendance via conference call. The intent is also to promote teamwork and collaboration between stakeholders and to develop consensus-based recommendations. The Engineer will develop minutes of the meetings and distribute to attendees and other stakeholders as requested by the County. Should Engineer's attendance be required at additional meetings, additional services will be required.

1.7 Data Collection

Data and information concerning the current and future wastewater and reclaimed water systems will be provided by the County and will include, but not be limited to, the following:

- Record drawings of the Burnt Store potable water, wastewater, and reclaimed water facilities
- Engineering Reports and Studies, including:
    - 2005 South Charlotte Reuse Water Master Plan and Engineering Report, and previous reclaimed master plans for all service areas
    - 2017 Sewer Master Plan, and previous master plans
    - Burnt Store Wellfield Study
    - Burnt Store Road Phase II Utilities Planning Study
    - 2017 and 2018 WRF Annual Reports
    - Capacity Analysis and Operation & Maintenance Performance Reports
    - City of Punta Gorda Sewer Master Plan and associated documentation provided by the City of Punta Gorda or their consultants
- Comprehensive Plan and GIS information for existing and future build out conditions
- Maps of existing wastewater collection and reclaimed water service areas
- Regulatory reports, permits, and correspondence for the Sewer and Reclaimed Water Systems
- Daily Monitoring Reports (DMR's) for WRF, 12 months minimum
- Data for effluent flows to reclaimed water system, deep injection wells, and percolation ponds

- Current sewer and reclaimed water system models for the South County service area and other services areas for consideration of interconnect options, if available

Previously collected data and files maintained by Jones Edmunds (JE) for work provided on behalf of the County will also be utilized for this planning effort.

1.8 Materials Testing

Sampling of materials for asbestos, lead, and/or PCB's will be performed at the existing facility following visual inspections conducted during Task 1.2. Tests will be limited to no more than 10 samples for each potentially hazardous material.

1.9 Funding Strategies

The Engineer will assist the County in identifying potential funding sources and developing a funding strategy and/or model for proposed improvements over the phased expansion approach.

The County will complete and submit funding applications. The Engineer will prepare supporting data, narrative, maps, cost estimates, and documentation in a format to meet applicable funding application criteria. Engineer will evaluate SRF, WIFIA, Water Management District, and other financing and grant options in developing the initial funding strategy and models.

Financing strategies and user fees for expanding the reclaimed water distribution system to new users will also be evaluated and financially modeled and may include SRF, WIFIA, Water Management District, and other financing and grant options in developing the funding strategy and models.

1.10 City of Punta Gorda Joint Effort Meetings

Meetings between the County and the City of Punta Gorda are currently being held once per month to explore opportunities to combine treatment facilities and develop a regional facility. The meetings are anticipated to continue through the end of the 2019 calendar year. The Engineer will participate in three (3) meetings with the City of Punta Gorda and the city's engineering consultant. The objective is to develop an understanding and consensus on planning efforts, including flow projections, siting options, and treatment alternatives for a regional facility.

The Engineer will also conduct up to two (2) stakeholder coordination meetings with the County, which will include meetings with potential regional wastewater, reclaimed water, and/or bio-solids partners.

TASK 2 – SEWER MASTER PLAN ADDENDUM

The Engineer will prepare a draft Sewer Master Plan Addendum for consolidating the conclusions reached for the South County Service Area for County review. The Addendum will update only Chapter 6 Water Reclamation Facilities (to address siting, plant expansion, and treatment technologies). This will provide master planning level needs and alternatives for the phased expansion of the site selected for the WRF. This will include regulatory review, decisions for regional coordination, funding considerations, coordination with onsite RO plant, if required, transmission system modifications, and future water supply in relation to sharing the same site. The Sewer Master Plan Addendum will be prepared consistent with SRF funding application guidelines.

The 2017 Sewer Master Plan will be used as the starting point to develop the basis of design for proposed WRF improvements. Specifically, an Addendum to the Sewer Master Plan will be prepared for the South County Sewer Service Area that is served by the Burnt Store WRF. This Addendum will not include any updates to the collection and transmission system or septic to sewer areas of the South County Sewer Service Area. Chapters 4 – Sewer Improvement and Infill and Chapter 5 – Collection System, Transmission Mains and Pump Stations will not be updated as County has indicated no change is anticipated to the 5, 10 or 15-year required improvements. The Addendum will update Chapter 6 - Water Reclamation Facilities to address siting, plant expansion, and treatment technologies and be submitted to the County for review and comment.

Burnt Store (South County) Sewer Master Plan Addendum

Evaluate Service Area: No changes in the South County Sewer Service Area are envisioned by the County and the 2017 Sewer Service Area from the Sewer Master Plan will be used.

Service Area Demographics: The existing 2017 Sewer Master Plan demographic information will be used which includes population projections and land use planning (such as residential, commercial, institutional and industrial densities that currently exist and are planned for the respective service area). The projections will be delineated for a twenty (20) year planning period and will be presented in five (5) year increments. Major developments and associated commercial expansion areas that have been proposed since the completion of the 2017 Sewer Master Plan will be incorporated into the service area demographics.

Note: The intent is to evaluate demands and expansion needs through build-out, which may be more than a twenty (20) year planning horizon. Also, the planning increments may not be spread over four (4) equal 5-year increments – but will be dependent on the timing of planned major developments and septic tank

conversion projects in the South County Service Area. The actual planning period (i.e., Build-Out) and timing of the four (4) planning increments will be determined as part of initial planning efforts and will be extended to all Phase 1 activities.

Flow Projections: Flow projections will be updated to include historical flow projections and wastewater characteristics (2011 through 2019), and future flow projections will be updated based on estimated population projections, planned major developments, and septic tank conversion projects for the 20-year planning period and to build out conditions. Phased options will be recommended for current and future expansions.

Site Analysis: Three (3) siting options will be evaluated for the WRF expansion. The options include use of the existing/expanded site as identified in the 2017 Sewer Master Plan, the existing Punta Gorda site, or relocation to another County-owned site. The evaluation will include recommendations for required zoning modifications and environmental implications, if needed. Engineering services for zoning modifications, comprehensive plan revisions, or public meetings/hearings will be not be provided. County staff will assist with completing this task.

Site requirements for expansions or modifications of existing or proposed lift/pump stations and on-site transmission mains will also be evaluated. Opinions of project costs for the modification and upgrade of the existing site and for the proposed alternative sites will be performed to allow comparison of costs. Class 5 estimates as defined by AACE International will be performed.

The site analysis for the Burnt Store WRF expansion will include consensus-based decisions regarding the joint effort with the City of Punta Gorda for evaluating a regional treatment facility.

Environmental Studies: Desktop environmental, archeological, historical, rare and endangered species and similar studies in compliance with NEPA will be performed for the three (3) sites. The desktop studies will be based on a review of regulatory files, environmental reports, and previous studies that are maintained as public databases by the Florida Department of Environmental Protection (FDEP). Field investigations will be performed as part of Phase 2 services unless critical for finalizing the selected alternative. If so, the Phase 2 task will be performed during Phase 1.

Compatibility with Reverse Osmosis (RO) Plant: Engineer will evaluate compatibility of proposed improvements with the existing RO water treatment plant and deep injection wells (DIW) at the existing site.

Resiliency Planning: A desktop analysis of the potential impacts of sea level rise will be conducted for the existing/expanded site, the existing Punta Gorda site,

and one (1) alternate site for a total of three (3) sites. The analysis will include recommendations to elevate critical equipment and structures above the existing 100-year flood plain or including adequate freeboard, if needed. The County will assist in defining the acceptable risk profile to be assigned to the model prior to the analysis.

Treatment Technologies Evaluation: Our team will identify, review, and screen up to six (6) technologies for expanding or replacing the existing WRF, and will short-list no more than three (3) treatment options for further consideration by the County.

A matrix of treatment and disposal options for each of the short-listed technologies will be developed. A design charrette will be conducted as part of one of the Stakeholder Workshops to review the "pros and cons" of each alternative and develop a consensus-based recommendation based on stakeholder input. Additional items for consideration will include low-level nutrient removal using Bardenpho advanced treatment system with a fine bubble aeration system and adding deflection baffles to oxidation ditch aerators similar to the East Port WRF for the MLE treatment process. Factors for consideration may include, but not be limited to, life cycle costs, land requirements, environmental impacts, operability, phased-expansion, safety, reliability, flexibility, transition issues/methods, permitting issues, land acquisition issues, and community impacts. Class 5 cost estimates as defined by AACE International will be provided that are consistent with SRF requirements and will be provided in a format to support funding applications and will be limited to per gallon costs based on recent bid tabulations and industry standard data. The goal and outcome of the workshop will be a consensus-based selection of the recommended treatment technology for the proposed WRF expansion.

Regulatory Review: An overview of existing and imminent regulatory issues that may affect long-term planning of the wastewater system over the planning horizon to full build-out will be performed.

Green Technologies: Engineer will evaluate options to include green technology and alternate power sources/supplies in the project consistent with a sustainable building rating system or a national green building code (as outlined in Charlotte County Code 3-2-83 b). The intent is to optimize the integration of livability and green building practices designed to save energy and water, incorporate reuse materials, reduce waste, and enhance the quality and durability of the structures.

Capital Costs: Capital costs will be developed to replace and/or expand the recommended facilities, including the WRF and if required, the on-site wastewater transmission system components (i.e. new master lift station and on-site transmission main). Costs will be presented for the incremental twenty (20)

year planning periods and build-out and will be presented in a spreadsheet format, supported by graphics. Class 5 cost estimates as defined by AACE International will be provided. Individual Capital Improvement Program (CIP) project sheets will be provided for the first 5-year increment. The remaining increments will be provided in the capital needs format.

Operation & Maintenance Cost Evaluations: O&M costs for existing facilities will be provided by the County. Projected O&M costs will then be developed for the recommended facilities. O&M costs will be presented for the incremental planning periods. Operational or procedural issues that may impact costs (i.e., soft costs) will also be evaluated.

Present Worth Cost Evaluation: A present worth determination for the selected alternative will be performed based on a twenty (20) year planning period, built-out, or planning horizon as otherwise required by identified funding sources, and based on the current discount rate obtained from the SRF loan program, for the County to identify the cost effective and feasible alternative for full build-out of the service area. A cost-effective analysis, as required by SRF applications, will be included.

QA/QC Review of Draft Addendum: Conduct quality assurance and quality control procedures for the draft addendum in accordance with the Engineer's QA/QC policy. This work includes senior level review by a professional familiar with this type of work, but not directly involved with the project; documentation that review comments were addressed; and incorporation of County comments as appropriate.

Submit Draft Addendum: Following modifications to the report based on QA/QC recommendations, submit six (6) copies of the draft addendum to the County for review. The Engineer will assume comments will be received from the County within two (2) weeks from the time the submittal is received, and a review meeting will be scheduled a maximum of two (2) weeks from the date of receipt of County comments.

Draft Addendum Review Meeting with County: Conduct a review meeting with the County to discuss comments developed by County staff, provide a written summary of County comments that will be incorporated into the final Addendum to the Sewer Master Plan for South County and develop meeting highlights and distribute to attendees. Upon agreement of modifications to the draft addendum, a final addendum will be prepared and submitted to the County.

Submit Final Addendum: Following modifications to the draft addendum based on addressing the County comments and internal QA/QC review, submit six (6) copies of the final addendum, signed and sealed by a Florida Licensed

Professional Engineer. The final addendum will require BCC approval prior to proceeding the Phase 2 – Design Services. The final addendum will be reviewed for SRF compliance prior to submittal to the BCC.

TASK 3 – RECLAIMED WATER MASTER PLAN

The Engineer will prepare a Reclaimed Water Master Plan for South County. It is the Engineer's understanding that this South County Reclaimed Water Master Plan will be ultimately incorporated into the Mid- and West County Reclaimed Water Master Plans that are being prepared under a separate contract. Therefore, to avoid duplication of efforts, the Mid and West County Reclaimed Water Master Plans will establish the main format and address the general items that affect the entire reclaimed water system, including funding alternatives by SRF, SWFWMD and SFWMD. The draft plan will include results of data collection and provide master planning level needs and alternatives for the phased expansion of the reclaimed water system.

3.1 Review Existing Reclaimed Water Master Plan

The 2005 South Charlotte County Reuse Water Master Plan and Engineering Report, related reclaimed water planning documents, and existing or proposed reclaimed transmission pipeline design drawings and documents will be reviewed. The intent of the review is to compare 2005 conditions (reclaimed water availability, demand, and system) with current conditions in the South County Service Area, and more specifically, as it relates to the Burnt Store WRF effluent, and to evaluate inter-connection options. AWWA M24 will be used as guidance for planning the reclaimed water distribution system.

3.2 Existing Reclaimed System Evaluation

Define Existing Service Areas: Use existing reclaimed water maps and design drawings provided by the County to define the existing and proposed South County Reclaimed Water service area and transmission pipe distribution network.

Current Usage: The County will provide an updated summary of reclaimed water flows for 2019. However, it is assumed current reclaimed water distribution and use to customers in the South County Reclaimed Water service area remains insignificant at less than 50,000 gpd.

Ultimate Service Area: The ultimate service area for the reclaimed system will be delineated using prior master plans, information from reports provided by the County, topographic maps and respective comprehensive plans, and the major users interested in receiving reclaimed water (such as Burnt Store Marina and Tern Bay)

from the County. System maps are to be provided by the County in electronic format (AutoCAD or GIS format).

Proposed bulk users and the potential for regional interconnects will be discussed with and agreed upon by the County. This information will be interpolated to identify future reclaimed water customers. This task will include identification of no more than ten (10) targeted customers. Discussions with targeted customers will be performed by CCU staff. Based upon information received from CCU staff, the potential user groups will be prioritized, along with the irrigation area and irrigation volume (gpd) for each major user.

Distribution System Evaluation: The evaluation will be limited to a review of current record drawings for existing reclaimed transmission mains and pending expansion projects for the existing South County reclaimed water system. Condition assessments and field investigations will be provided by County staff under the direction of the Engineer, and if specific expertise from the Engineer is needed for field work, this will be considered additional services.

Review and Summary of Customer Agreements: Summarize the existing major reclaimed water user agreements for the South County reclaimed water system. The County's current agreement for interconnects with other counties or municipalities will also be reviewed and summarized.

3.3 Reclaimed Water System Improvements

Develop Reclaimed Water System Alternatives: Evaluations will be performed for scenarios to expand the reclaimed water system to maximize reuse and minimize effluent disposal. The improvements will include ground storage tanks, ASR storage, expansion of the existing transmission system, and coordination with adjoining agencies and major users.

The scenarios will include consideration of specific areas identified for potential reclaimed water service expansion. These scenarios will focus on reclaimed water improvements to the backbone of the reclaimed water system (pipes 8-inch or larger in diameter) to convey reclaimed water from the Burnt Store WRF to proposed major users to meet the forecasted demands.

Reclaimed Water Model Master Plan Development of Flow Capacity

Analysis of the existing system will include no more than two (2) scenarios (Average Day Demand & Max Month Peak Day Hourly Demand). Engineer will work with the County to develop specific design flow criteria to be used to define the reclaimed water system. System analyses will to include 5-, 10-, 15-, 20- year, and build-out planning horizons. Prepare a Water Balance of the Reclaimed Water System to

evaluate daily and seasonal storage requirements and provide recommendations for the expansion of alternative storage sites, including ground storage tanks, surface ponds, ASR's, to meet the seasonal storage requirements over the planning period and build-out.

Interconnect with Punta Gorda: The City of Punta Gorda has expressed an interest in sharing reclaimed water, especially with golf courses. A future interconnect with the city will be discussed with the County and evaluated if an interconnection is deemed feasible based on the reclaimed water supply volumes available and reclaimed water demand volumes from proposed major users.

Capital Costs: Capital costs will be developed for the recommended reclaimed water system improvements. Costs will be presented for the incremental twenty (20) year planning periods and build-out and will be presented in a spreadsheet format, supported by graphics. Class 5 cost estimates as defined by AACE International will be provided. Individual Capital Improvement Program (CIP) project sheets will be provided for the first 5-year increment. The remaining increments will be provided in the capital needs format.

Operation & Maintenance Cost Evaluations: O&M costs for existing facilities will be provided by the County. Projected O&M costs will then be developed for the recommended facilities. O&M costs will be presented for the incremental planning periods. Operational or procedural issues that could impact costs (i.e., soft costs) will also be evaluated.

Present Worth Cost Evaluation: A present worth determination for each selected alternative will be performed based on a twenty (20) year planning period, build-out, or as otherwise required by identified funding sources, and based on the current discount rate obtained from the SRF, SWFWMD, and SFWMD loan programs. A cost effectiveness analysis consistent with SRF funding application requirements will be provided.

3.4 Reclaimed Water System Modeling

Reclaimed Distribution System Capacity Evaluation and System Operation: The projected reclaimed water data (availability and demand) will be used to evaluate the need for expanding existing facilities, development of storage facilities, and where and when new facilities are needed. It is anticipated that the major users will be Burnt Store Marina, Tern Bay, and a possible future interconnect to the City of Punta Gorda. The reclaimed water model construction and development will consist of the following:

Reclaimed Water Model Data and Development: The reclaimed water model shall be compatible with the CCU Design Compliance Standards dated November 1, 2011. The following will apply to the model development:

- GIS layers or CADD of the existing reclaimed water transmission mains from the Burnt Store WRF to major users (Burnt Store Marina, Tern Bay, Other).
- Layout and sizing of the proposed reclaimed transmission mains and incorporation into the reclaimed water model.
- Model setup will be consistent with the standards being used for the west/mid-County reclaimed water models.
- Assign pump data and pump curve information into the hydraulic modeling software.
- Assign reservoir, tank and well parameters (where applicable) into the hydraulic model.

Reclaimed Water Model Calibration: Since the current reclaimed water system is very small, calibration will not be performed on the model at this time. No reclaimed water model will be developed with the current and proposed major reclaimed water customers to allow ease of future calibration efforts.

3.5 Reclaimed Water Master Plan for South County

The Engineer will prepare a draft for the Reclaimed Water Master Plan for South County. The draft plan will include results of data collection, evaluations and reclaimed water model development. This will provide master planning level needs and alternatives for the phased expansion of the reclaimed water system. This will include regulatory and ordinance reviews, decisions for regional coordination financial planning recommendations. The plan will be prepared to meet SRF, SWFWMD, and SFWMD funding application requirements.

QA/QC Review of Draft Plan: Conduct quality assurance and quality control procedures for the draft plan in accordance with the Engineer's QA/QC Policy. This work includes senior level review by a professional familiar with this type of work, but not directly involved with the project; documentation that review comments were addressed; and incorporation of County comments as appropriate.

Submit Draft Plan: Following modifications to the plan based on QA/QC recommendations, submit six (6) copies of the draft plan to the County for review. The Engineer will assume comments will be received from the County within two (2) weeks from the time the submittal is received, and a review meeting will be scheduled a maximum of two (2) weeks from the date of receipt of County comments.

Draft Plan Review Meeting with County: Conduct a review meeting with the County to discuss comments developed by County staff, provide a written summary of County comments that will be incorporated into the final master plan and develop meeting highlights and distribute to attendees. It is anticipated that this review meeting will be conducted simultaneous with the review meeting for the Draft Addendum to the Sewer Master Plan.

Submit Final Reclaimed Water Master Plan: Upon agreement of modifications to the draft plan, a final plan will be prepared and submitted to the County. The plan will be prepared consistent with SRF, SWRWMD, and SFWMD funding applications. Following modifications to the draft plan based on County comments and QA/QC recommendations, submit six (6) copies of the final plan, signed and sealed by a Florida Licensed Professional Engineer. The final plan will require BCC approval prior to proceeding to the Phase 2 – Design Services. The final plan will be reviewed for SRF, SWFWMD, and SFWMD compliance prior to submittal to the BCC.

TASK 4 – PRELIMINARY ENGINEERING/BASIS OF DESIGN REPORT

4.1 Treatment Process

A preliminary site layout for each option will be developed based on the treatment and siting recommendations from Task 2. Each component will be sized to meet current and future expansion needs. The site plan will include layouts for each expansion recommended to build-out and will address space requirements to address regulatory or other impacts identified in the Master Plans.

A biological model will be developed using BioWin® to simulate "what if" scenarios for current and build-out flow and loading conditions.

I&C/SCADA, electrical, and power requirements will be evaluated for current and future expansion needs.

Energy efficient and/or green technologies will be evaluated to promote sustainable and environmentally sound improvements.

4.2 Indirect Reuse Treatment Options

Treatment options to replenish groundwater supplies for future potable water well withdrawal will be evaluated.

4.3

Reject Water/Effluent Disposal

Options will be evaluated for handling of the reject water, including storage, treatment, re-treatment, transmission/distribution and related alternatives.

4.4 Residuals Management

Options for residuals management, including continued co-disposal of concentrate from the reverse osmosis facility, will be evaluated. Processing of residuals (biosolids thickening, dewatering and digestion) at the Burnt Store WRF site will be evaluated along with the option to continue the current practice of residuals delivery to the East Port WRF. Recommendations for phased implementation will be provided.

4.5 Transmission/Collection System Improvements

This scope assumes no improvements will be required.

4.6 Reclaimed Water Storage and Reclaimed Water System Hydraulic Improvements

Hydraulic improvements to the reclaimed water system, based on the initial expansion, will be included in the preliminary engineering report. Recommended transmission system improvements to distribute reclaimed water to the Burnt Store Marina, Tern Bay, and a possibly future connection with the City of Punta Gorda will be identified. The option to use the existing WRF tanks as reclaimed water storage will be considered based on tank volume. Evaluation of the existing tank conditions is not included in this scope of services. The site plan for the proposed WRF will consider the need for future reclaimed water storage tanks.

4.7 Personnel Needs

Staffing requirements will be evaluated for both current and future needs based on FDEP criteria and will include documentation to support recommendations for expanded shifts or operators.

4.8 Transition Process

A strategy for transitioning from the existing WRF to the expanded WRF, and to an alternate site if appropriate, will be evaluated. The evaluation will include maintenance of plant operations during the expansion(s) and permit compliance during the initial expansion. This task includes the evaluation of interim package treatment unit processes, or other interim options, to allow the existing WRF to accommodate increased flows and loads associated with immediate growth needs prior to the construction and commissioning of the proposed WRF.

4.9 Field Investigations

Geotechnical and subsurface investigations are included in the Phase 2 scope of services. Refer to Phase 2, Design Services, for assumptions used in developing the geotechnical scope.

Environmental, archeological, historical, rare and endangered species and similar investigations (NEPA compliant) will also be included in Phase 2, unless determined to be critical during selection of the final site alternative. If required, the Phase 2 Task will be performed during Phase 1. The scope assumes that the services will be provided for the existing and expanded plant sites as identified in the Sewer Master Plan. Recommendations for additional studies or field investigations can be provided as supplemental services.

4.10 Capital Costs

The capital costs from Tasks 2 and 3 for the selected alternative will be updated upon completion of the preliminary design. A Class 3 estimate as defined by AACE International will be provided.

4.11 Preliminary Engineering/Basis of Design Report

A preliminary engineering report (or Basis of Design Report), including conceptual drawings, will be developed and reviewed consistent with Task 2 and 3. The preliminary engineering report, although conceptual, will be advanced to an approximate 30% design. Once accepted by the County and regulatory agencies, the preliminary engineering report will form the basis of design for Phase 2 – Design Services and will be the basis for advancing the accepted 30% design to 60%, 90%, and ultimately Issue for Bid designs.

4.12 Permitting

Pre-application meetings will be conducted with FDEP, SWFWMD/SFWMD, and County zoning and permitting, if applicable, upon completion of master planning activities. Permit applications will be submitted as part of the Phase 2 scope.

PHASE 2 – DESIGN SERVICES

Design services for Phase 2 include Tasks 5 through 11 as subsequently described and will be based on the presumption that the existing Burnt Store WRF will be replaced with a new facility constructed at the same site as the existing Burnt Store WRF facility. The design capacity of the new WRF will be 2.5 mgd, with the capability to expand the facility to 7.5 mgd. The new WRF design will address Class 1 reliability. The existing WRF will be decommissioned and demolished upon completion and successful start-up of the new WRF. Major unit treatment processes that will be included in the new WRF include:

- Influent lift station
- Headworks structure and biological treatment system splitter box
- Biological treatment system
- Clarifier flow splitter box
- Secondary clarifiers
- Return/Waste activated sludge pump station
- Tertiary treatment (filtration)
- Chlorine contact basin
- Sodium hypochlorite disinfection system
- Effluent transfer pump station
- Reclaimed and reject water ground storage and/or elevated tanks and/or ponds
- Reclaimed water high service pump station
- Aerated sludge holding and/or digester
- Plant drain pump station
- Electrical building
- Standby power facilities

Design of additional treatment processes, such as flow equalization, odor control, and residuals treatment and handling (biosolids thickening, dewatering and digestion) at the Burnt Store WRF will be dependent upon the Task 4 - Preliminary Engineering Evaluation and, if recommended and accepted, will be considered additional services. Design services will also include site, drainage, and yard improvements and integration with the existing deep injection wells. Designs will conform to Charlotte County Design Compliance Standards dated November 1, 2011.

Design services assume that expansions, improvements, or rehabilitation of the existing wastewater collection or reclaimed water distribution systems will not be required for the initial plant expansion.

TASK 5 – DESIGN TASKS

NOTE: The basis for the scope and fee is the Modified Lutzack Ettinger (MLE) process at the existing site and may include a combination of system components listed above. The

final Phase 2 scope and fee will be refined and modified based on the approved final Basis of Design Report (Task 4).

5.1 Influent Pump Station/Flow Equalization Basin System

Design an influent lift station/flow equalization basin system to pump the influent flow up to the headworks structure. The influent pumps will be submersible centrifugal pumps with variable frequency drives. The influent pumps station will be designed to accommodate expansion for future flows.

5.2 Headworks Structure and Biological Treatment System Splitter Box

The design of the elevated headworks structure shall include two (2) in-line mechanical fine screens with screenings dewatering and disposal, one (1) in channel manual bar screen, two (2) vortex grit removal systems with grit washing/compacting and disposal, flow measurement, influent flow sampling, and flow splitter box to split flow to the biological treatment units. The headworks structure will be designed to accommodate expansion for future flows. The flow splitter box design shall accommodate the return activated sludge, supernatant from the aerated sludge holding tank, and the discharge from the plant drain pump station.

5.3 Biological Treatment System

The biological treatment system will be a Modified Ludzack Ettinger (MLE) process consisting of two trains, each with an anoxic basin followed by a carousel basin with mechanical aerators. Each aerator will be equipped with variable frequency drive (VFD). On-line dissolved oxygen monitoring probes and nitrate probes will be provided in the basins in association with the VFDs to regulate the aerators' speed based on dissolved oxygen required. The design of the carrousel basins shall utilize common wall construction and include provisions for additional basins in the future. The carrousel basins will be designed to provide diurnal flow equalization.

5.4 Clarifiers Flow Splitter Box

The clarifier flow splitter box will allow the mixed liquor from the aeration basins to be split to the secondary clarifiers. The design of clarifier flow splitter box will initially consider two (2) secondary clarifiers and include the provision to add up to two (2) more secondary clarifiers in the future.

5.5 Secondary Clarifiers

Design two (2) circular clarifier tanks with center pier supported and a spiral scraper clarifier mechanism. Settled solids will be collected and discharged to the suction feed of the RAS/WAS Pumping Station. The clarifier tanks will contain the following

equipment: full-radius skimmers, scum trough, center pier and feedwell, clarifier drive, bridge walkway, access walkway, access stairs, drive platform, effluent launders with scum baffles, weirs and density current baffles, weir washers, scum removal system and a drain system.

5.6 Return/Waste Activated Sludge Pump Station (RAS/WAS Pump Station)

Design one (1) combined RAS/WAS pump station consisting of centrifugal pumps mounted on a cast-in-place concrete slab on grade with associated piping and appurtenances, electrical, and instrumentation systems. Each RAS/WAS pump motor may be equipped with a VFD. It is anticipated that the piping and valving arrangement will allow the County to divert a portion of the sludge to waste while returning the rest of the activated sludge to the headworks structure. Separate RAS/ WAS pumps will not be provided. It is assumed that as future secondary clarifiers are constructed, new RAS/WAS pump stations will be constructed separate from the proposed RAS/WAS pump station. However, the yard piping/valving arrangement shall be designed to interconnect the proposed RAS/WAS pump station with the future RAS/WAS pump station.

5.7 Tertiary Treatment

Design two (2) automatic backwash (ABW) traveling bridge sand/anthracite filters including backwash water booster pumps and controls. The design shall allow each filter to be isolated and taken offline for maintenance. A bypass channel or pipe will be included in the design to allow the County to completely bypass the filters if necessary.

5.8 Chlorine Contact Basin

Design a chlorine contact basin with two (2) parallel serpentine channels. The head of the basin will include a flow splitter and weir gates to allow the flow to be sent to either channel or split to both channels. The flow splitter design will also accommodate the construction of up to two (2) additional channels for future flows. The design of the chlorine contact basin will include a common water transfer wet well at the discharge of the basin. The chlorine contact basin channels shall include common wall construction and shall be covered with UV shade cloth to reduce the potential for algae growth. The design will also include effluent flow measurement, flow sampling, drains, and wash down water.

5.9 Sodium Hypochlorite Disinfection System

Design a bulk sodium hypochlorite chemical feed system. The design shall include dual polyethylene storage tanks, skid mounted duplex chemical feed pumps, and secondary containment for the tanks, fill, and discharge lines. It is understood that

the sodium hypochlorite chemical feed system will be located on a concrete slab at grade and include a three-sided metal enclosure to protect the equipment and sodium hypochlorite from weather and UV exposure. Design shall provide for dual-walled plumbing and access plates for containment.

5.10 Effluent Transfer Pump Station

The design of the effluent transfer pump station will utilize the common water transfer wet well at the discharge of the chlorine contact basin and include two (2) vertical turbine pumps manifolded to pump effluent to the RCW ground storage tank or the existing onsite deep injection well pump station. The effluent transfer pumps will also serve as the filter backwash feed pumps. TEFC motors will be included on outside vertical turbine pumps.

5.11 Reclaimed and Reject Water Storage Tanks and Treatment

Design of two (2) 2-million gallons prestressed concrete ground storage tanks and/or ponds: one for RCW storage and one for reject water storage. The option to construct a reject water storage pond (or ponds) and/or elevated storage tank(s) in lieu of a ground storage tank will be evaluated in Phase 1. The design will also include the design of a reject storage return pump station to return the reject water to either the new headworks structure or ahead of the traveling bridge filters. The design layout shall consider the need for future expanded storage capacity and filtration and chlorination prior to delivery to the distribution system, if not addressed at the high service pump station.

5.12 Reclaimed Water High Service Pump Station and Treatment

Design of the RCW high service pump station shall include two (2) duty and one (1) jockey vertical turbine pumps, with variable frequency drives. Pumps will be located with manifolded pump stainless steel pump cans. The RCW high service pump station shall include a concrete slab on grade and provisions to add additional pumps in the future and chlorination prior to entry into the distribution system. TEFC motors will be included on all outside vertical turbine pumps.

5.13 Sludge Holding and Processing

Design of an aerated, dual chamber sludge holding tank, sized for ability to convert to future sludge digestion, complete with centrifugal aeration, decanting mechanism to withdraw supernatant, and truck loading facility.

5.14 Plant Drain Pump Station

Design a submersible duplex pump station to pump to the proposed headworks. It is understood that all flow to the plant drain pump station will be gravity flow and shall include on-site sanitary flow, sludge holding tank supernatant, and various tank drains. The plant drain pump station will be sized for the future plant build-out flow.

5.15 Operations and Maintenance Building

Per the County's direction, the design of an Operations and Maintenance Building is not included in this scope of services but can be addressed as supplemental services or by addendum upon written authorization from the County.

5.16 Electrical Building

Design a 1,500-sf Electrical Building to house the switchgear, motor control centers, electrical panels, PLCs, and SCADA panels. Building construction will be slab on grade, stucco exterior walls, wood-truss with metal roof in same aesthetic and appearance as the vacuum station. The Electrical Building will include air conditioning.

5.17 Standby Power Facilities

Design one (1) diesel powered standby generator with automatic transfer switch and above grade dual wall fuel storage tank. The generator will be sized to run the critical load of the WRF and will be sized to provide 72 hours of operation under full load. The design will include provisions and space for future standby power for future plant expansions and will include taps for connection to alternate power supplies and sound attenuation provisions.

5.18 Civil/Site/Yard Piping

Provide paving, grading and drainage design for the new WRF. Design will include access drive from the nearest public road as well as on-site access drives and sidewalks; new stormwater facilities including stormwater retention pond, piping and discharge structure to accommodate the new impervious area added at the plant site. Yard piping design will consider the need to upsize pipes for future flows and/or the need to add parallel pipe in the future. Landscaping design will consist of only basic restoration with sodding and seeding plus a perimeter fence and gate for site security. Redesign of drainage pattern around the deep injection wells and adjoining concrete slab will be included.

5.19 Landscaping

Scope will include basic landscaping features to serve as a buffer as required by County code. Actual extent of landscaping will be determined during the site plan review stage.

5.20 Electrical and Instrumentation Systems

Design electrical and instrumentation and provide load calculations to accommodate proposed design tasks, including site lighting, lightning protection measures, power and controls, ARC flash measures, and plant SCADA system. The intent is to correlate the design with the SCADA Master Plan to be published in 2019/20. The level of process automation will be determined in Phase 1.

5.21 Demolition

Demolition shall be limited to the decommissioning and demolition to grade of the existing Burnt Store WRF structures, re-grading of the site and basic sodding and seeding. It is our understanding that re-purposing of the existing facilities will not be performed. Demolition design will consider the possibility to salvage and relocate existing equipment, including electrical switchgear, VFD's, and PLC's, as well as management of hazardous materials that may be encountered. Demolition plans will utilize existing records drawings as the basis for identifying demolition requirements.

Unless noted otherwise, it is understood that the design of all process structures will be based on the structure constructed of either cast-in-place or precast concrete. The option to use prestressed concrete structures for the oxidation ditches, secondary clarifiers, and sludge holding tank will be evaluated in Phase 1.

TASK 6 – DESIGN RELATED FIELD INVESTIGATION

6.1 Boundary and Topographic Survey

A topographic and boundary survey will be performed for the footprint of the existing plant site (approximately 30 acres) and the adjacent site identified in the 2017 Sewer Master Plan (approximately 30 acres). The topographic survey will include spot elevations (maximum 100-foot grid intervals). The locations of jurisdictional wetlands, soil borings and SUE locations will also be located horizontally and vertically. The survey shall also determine the critical elevations of the existing structures necessary for the design of the new facilities. The survey will obtain elevations utilizing the datum and other criteria spelled out in the CCU Design Compliance Standards (November 1, 2011) minimum drawing requirements at points within or on the existing facilities deemed critical to the design of the new facility. Three (3) signed and sealed copies of the topographic survey will be provided for the

property boundaries along with CAD files in accordance with CCU Design Compliance Standards dated November 1, 2011.

6.2 Geotechnical Investigation

Site subsurface borings for the proposed major structures will be performed. A double ring infiltration test will be conducted in the area selected for the stormwater pond. Results of the geotechnical investigation will be provided in a signed and sealed report. The scope is based on a maximum of twenty (20) penetration test borings to a depth of 75 feet below grade; twelve (12) standard penetration test borings to a depth of 50 feet below grade; and one (1) double ring infiltrometer test.

6.3 Subsurface Utility Engineering (SUE)

SUE will be performed at the locations where potential conflicts exist based on current as-built drawings. For budgeting purposes, we have assumed three days in the field for a SUE crew to perform SUE Quality Level B investigations and another twenty (20) SUE Quality Level A vacuum excavation investigations. Proposed SUE locations will be reviewed with and accepted by County staff prior to execution.

6.4 Wetlands Delineation

It is assumed that the new facility will be constructed within the footprint of the existing, previously disturbed site. However, a wetlands delineation of the existing (approx. 75 acres) and adjacent (approx. 40 acres) sites will be performed.

TASK 7 – PERMITTING

7.1 Environmental Resource Permitting

An Environmental Resource Permit (ERP) application package will be prepared and submitted for the stormwater management system for the existing or proposed WRF site. It is understood that the County will pay all permit application fees. This task includes responding to a maximum of two Requests for Additional Information (RAI's) from the FDEP, SWFWMD, or other regulatory agencies. It is assumed that the project area will impact wetlands and that an Individual Permit will be required.

7.2 FDEP Domestic Wastewater Facility Permitting

A Substantial Modification to the Burnt Store WRF's existing wastewater permit will be prepared and submitted to the FDEP. A pre-application meeting will be conducted with FDEP. The permit application package will include the Preliminary Engineering/Basis of Design Report prepared in Phase 1, FDEP Forms 62-620.910(1) and (2), the preliminary (60%) design plans, and other documentation to support the

application. It is understood that the County will pay all permit application fees. This task includes responding to a maximum of two RAI's from the FDEP.

7.3 County Site Permitting

County permitting assumes one submittal to zoning, including one follow-up submittal with individual County departments, to finalize site approval and to obtain County approval. County staff will assist with all County permits. Engineer will assist Contractor with building permit submittal to transfer zoning approvals to construction permit approvals, including threshold inspections, landscaping, etc.

TASK 8 – 60 PERCENT DESIGN PHASE

Designs will comply with CCU Design Compliance Standards dated November 1, 2011.

8.1 60% Design Drawings

Prepare contract drawings to the 60% design level for the unit treatment processes identified in Task 5. 60% design drawings will include demolition, civil/site plans, yard piping plans, architectural elevation plans, structural plans, mechanical process plans, process and instrumentation diagrams (P&IDs), electrical single line diagrams and electrical site plan, and other drawings required for permitting and bidding.

8.2 Major Equipment List

Prepare a list of major equipment manufacturers, equipment models, and ancillary items that will be used as the basis of design for the project. Selected equipment will be reviewed with County staff at the 60% design review workshop and will include a summary of funding criteria (i.e., American Iron and Steel compliance). County comments will be included and the list updated to reflect County requirements. Engineer's work relating to selecting equipment for funding source may require letter of explanation for sole sourcing or application waiver of funding source requirements, such as American Iron and Steel.

8.3 Preliminary Opinion of Probable Construction Cost

The preliminary opinion of probable construction cost (OPCC) prepared in Task 4 will be updated based on the 60% design drawings. The updated OPCC will be a Class 2 estimate as defined by AACE International.

8.4 60% Design Review Workshop

Conduct a design review workshop with County stakeholders (which could include but not be limited to IT, Facilities, Zoning, and Community Development) to review

status of the design, discuss County comments, questions, and design decisions made. Following 60% design review workshop, the Engineer will prepare a summary of the meeting and distribute to the attendees.

TASK 9 – 90 PERCENT DESIGN PHASE

Designs shall comply with CCU Design Compliance Standards dated November 1, 2011.

9.1 90% Design Drawings

Advance the 60% contract drawings to the 90% design level. 90% design drawings will include demolition, civil/site plans, yard piping plans, architectural plans, structural plans, mechanical process plans, P&IDs and panel layouts, electrical plans, and other drawings required for permitting and bidding.

9.2 Technical Specifications

Prepare preliminary (90%) technical specifications for bidding and construction of the new WRF.

9.3 Preliminary Opinion of Probable Construction Cost

Update the 60% OPCC based on the 90% design drawings and technical specifications. The updated OPCC will be a Class 1 estimate as defined by AACE International, which includes a detailed unit cost or take-off.

9.4 90% Design Review Workshop

Conduct a design review workshop with County stakeholders to review status of the design, discuss County comments, questions, major equipment list, and design decisions made. Following 90% design review workshop, the Engineer will prepare a summary of the meeting and distribute to the attendees.

TASK 10 – FINAL DESIGN PHASE

Designs shall comply with CCU Design Compliance Standards dated November 1, 2011.

10.1 Issue for Bid Drawings

Advance the 90% contract drawings to issue for bid level. Issue for bid drawings will address previously received comments from the County and the regulatory agencies (FDEP, SWFWMD).

10.2 Technical Specifications

Update the 90% technical specifications to a bid set for bidding and construction of the new WRF. Engineer will prepare bid tab, measurement and payment form, special provisions, and address deviations from CCU Design Compliance Standards dated November 1, 2011.

10.3 Preliminary Opinion of Probable Construction Cost

Update the 90% OPCC based on the issue for bid drawings and technical specifications. The updated OPCC will be a Class 1 estimate as defined by AACE International.

TASK 11 – BID PHASE ASSISTANCE

11.1 Pre-Bid Conference

Attend an information conference to provide an overview of the project and to respond to bidders' questions. Meeting minutes will be prepared and provided to the County.

11.2 Addenda Preparation

Engineer will respond in writing to bidders' questions and will provide additional clarifications, if necessary. This information will be provided to the County's project manager to assist with issuing no more than two (2) addenda.

11.3 Bid Evaluation

Assist with the bid evaluation, review a certified tabulation of bids, review references of apparent responsive low bidder, and prepare a letter of recommendation for the County's use.

PHASE 3 – CONSTRUCTION PHASE SERVICES

Construction phase services will include Tasks 12 through 14 as subsequently described and assume that the County will provide qualified resident project representative to perform daily construction observation services under the supervision of the Engineer of Record and County. For the purposes of this Scope, it is anticipated that the County will bid and award a single construction contract for the Project. Construction phase services will commence upon issuance of the Notice-to-Proceed to the Contractor and shall continue for the duration of twenty-four (24) consecutive months. Services that extend beyond 24 months will be considered additional services and paid under supplemental or contingency funds.

TASK 12 – CONSTRUCTION ADMINISTRATION

Construction Engineering and Inspection (CEI) services will be provided as described below. Although the Contractor will be responsible for obtaining construction related permits, the Engineer will provide the Contractor with copies of project-related documents to facilitate the permitting process.

12.1 Pre-Construction Conference

Prepare agenda, attend, and facilitate the pre-construction conference. Construction procedures and lines of communication will be established. The Engineer will prepare and distribute meeting minutes.

12.2 Shop Drawing and other Submittal Reviews

Engineer will establish and administer a procedure for receiving and tracking submittals including long lead time items made by the Contractor. Services will be provided for technical review of shop drawings. Copies of submittal reviews shall be forwarded to the County and the Contractor. It is anticipated that approximately 300 submittals will be included in this task. Final acceptance by the Engineer will follow and include County review comments. Engineer will maintain a master submittal log and review maintenance of plant operations (MOPO) plans developed by the Contractor. This could include bypass plans, which may be required per unit treatment process; spill plans; and communications with FDEP.

12.3 Review Monthly Pay Applications and Compliance Requirements

Engineer will review twenty-four (24) Contractor submitted monthly requests for payment applications. It is understood that the Engineer will rely on the information provided by CCU to determine the correctness of the Contractor's requested percent complete. It further understood that CCU will review the Contractor's requests for payment for compliance with all funding requirements. Recommendations regarding payment will be forwarded to the County.

12.4 Periodic Site Visits

Engineer will conduct periodic site visits utilizing licensed engineers familiar with the various disciplines associated with the project to observe major construction events and provide threshold inspections not completed by the County Building Official, including related application materials required by the Building Official that outline the Engineer's required inspections during the permitting process. For budgeting purposes, Engineer assumes no more than 144 hours, or eighteen (18) full day visits will be conducted during the 24-month construction period. Engineer site visits will be coordinated with Task 12.6. Should additional Engineer site visits be required, including site visits for threshold inspections, additional services will be required.

12.5 Clarifications and RFI Responses

Engineer will respond to requests for information and/or clarification by the Contractor or the County, coordinate resolution of issues during construction, and assist the County in corresponding with the Contractor and regulatory personnel. Issues that may arise during construction will be addressed and the overall construction will be reviewed with respect to the design intent. For budgeting purposes, Engineer assumes no more than fifty (50) RFI responses/clarifications will be required during the construction phase. Should additional RFI reviews by the Engineer be required, additional services will be required. Engineer will maintain a master submittal log and coordinate the review process. Clarifications and RFI's will not be approved by the Engineer until County input has been received.

12.6 Construction Progress Meetings

Engineer's Project Manager will attend monthly construction progress meetings which will be conducted by the County. It is understood that the County will prepare and distribute meeting agendas and meeting minutes. For budgeting purposes, it is understood that Engineer will attend twelve (12) meetings via conference call and twelve (12) meetings at the construction site, for a total of 24 monthly construction meetings. Should Engineer's attendance be required at additional meetings, additional services will be required.

12.7 Construction Materials Testing

For this Scope, it is understood that the Contractor will retain the services of a licensed geotechnical engineer to perform construction materials testing. Materials testing may include testing of concrete, soil compaction, steel welds, material thickness, and other materials as may be required during construction. Reports generated by the materials testing firm will be reviewed by the Engineer for compliance with specified criteria. The Contractor will be responsible for

coordinating and scheduling the performance of materials quality assurance testing with the materials testing firm. The Engineer is encouraged to recommend and subsequently the County may perform additional testing at their discretion to corroborate contract compliance.

12.8 Field and Change Orders

Engineer will review contractor and owner initiated change proposals, recommend change orders, and assist the County with the preparation of field orders and change orders.

12.9 Project Start-up

Engineer will assist in the start-up, testing and coordination of mechanical systems, instrumentation, electrical, controls and communication systems at both the operational ready test (ORT) and performance acceptance test (PAT) stages. It is anticipated that the project start-up process will take approximately 8-12 weeks in total for both ORT and PAT in particular for Instrumentation and Controls. Engineer will coordinate with Contractor and County SCADA contractor to provide assistance with integration of plant and CCU SCADA systems (currently Wonderware).

12.10 Preliminary and Final Walkthroughs

Engineer will conduct a preliminary walkthrough and prepare an Items to Complete (ITC) list for items to be completed or corrected by the Contractor. Upon notification from the Contractor that the preliminary items are complete, the Engineer will conduct a final walkthrough to ascertain the completeness of the corrections. The Engineer will generate a final punch list of remaining items for review and follow-up with the Contractor to determine completion of punch list items. All walk-throughs shall include County engineering and operational staff.

12.11 Record Drawings

Engineer will review and provide comments on the As-Built Drawings provided by the Contractor. The drawings shall be prepared in compliance with CCU Design Compliance Standards dated November 1, 2011. Comments shall be corrected by the Contractor and the revised As-Built Drawings shall be provided to the Engineer. Once the As-Built Drawings are deemed complete, Engineer will prepare Record Drawings in accordance with CCU Design Compliance Standards dated November 1, 2011, signed and sealed by the EOR, and submit two (2) full-size hard copies, two (2) reduced size (11 inch by 17 inch) copies, CAD file, and reproducible PDF's in 11"x 17" and 24" x 36" sizes in compliance with CCU Design Compliance Standards dated November 1, 2011 to the County. Additionally, an electronic copy of the viewable 3D model with BIM data attached will be provided. It is understood that the County's

resident project representative will periodically throughout the construction (at a minimum, monthly) review the Contractor's As-Built Drawings to confirm accurate record information is being recorded.

12.12 Project Close-out

Engineer will assist the County in closing out of the project. The Contractor's final application for payment will be reviewed and a final change order will be prepared for the County. Upon completion of construction, record drawings and the associated documents will be submitted to the regulatory agencies as required for final approval and authorization to place the facility into service. Operation & Maintenance Manuals and as-built drawings must be received from the contractor and accepted by the Engineer and County prior to recommending final payment.

TASK 13 – CONSTRUCTION OBSERVATION

Engineer will rely on the County to provide resident project representative (RPR) services during construction of the project. The County shall provide a qualified RPR, familiar with the type of construction anticipated, who shall observe and document the construction activities to ensure compliance with the design documents. Engineer shall be provided a copy of the RPR's on-site construction reports, field notes and construction photos/video on a timely manner not to exceed weekly. Engineer understands that the County will be responsible for all construction administration, except as identified above in Task 12, and the County shall provide all daily coordination with the contractor throughout the construction.

TASK 14 – OPERATION & MAINTENANCE MANUAL

Engineer will require electronic format of Operation & Maintenance (O&M) Manual submittals as part of the as-built construction documents. Engineer will compile the electronic data into one homogeneous document customized for the Burnt Store WRF, including process design and operational data, instrumentation/controls details, and maintenance details. Draft O&M manuals will be submitted for review by the County's engineering and operational staff to ensure compliance that the final manual meets requirements of CCU engineer and operations, the contract documents, regulations, and directives. Comments received from the County will be incorporated into the revised O&M manual, and three (3) hard copies and one (1) electronic copy of the manual that is in searchable PDF format with hyperlinked table of contents will be provided to the County. Included with the final O&M manual will be a complete set of approved shop drawings, operational instructions, maintenance publications and manufacturer's documents.

PHASE 4 – SUPPLEMENTAL SERVICES

Task 15 – SUPPLEMENTAL SERVICES

It is understood that during the execution of the project, the County may request the Engineer to perform additional engineering analysis, additional computer runs, development of alternatives, minor design and preparation of construction documents, engineering evaluations, and other directly related engineering required to produce an efficient and modern plant expansion, meeting all standards and the needs of the project Scope. Supplemental Services are included but must receive prior authorization in writing from the County before proceeding. This authorization shall fully set forth the proposed work and all compensation in an approved scope and fee.

Supplemental services may include, but not be limited to:

- Additional efforts due to the unavailability of accurate construction plans and data for existing facilities, or trouble-shooting problems that cannot be anticipated, and/or for needed or requested analysis of alternatives unforeseen at this time.
- Perform additional engineering analysis and evaluation of alternatives requested that is not in the scope of work, or that is not anticipated at this time.
- Perform such minor additional designs, including preparing construction documents, as requested to help the County fulfill its responsibilities for the expansion of the Burnt Store WRF.
- Perform such other, additional wastewater engineering or data collection services as specifically requested to fulfill the intent of the Project.
- Additional wetland delineation or other environmental investigations or permitting.
- Additional design for the expansion, rehabilitation, or modification of the existing wastewater collection and/or reclaimed water distribution system to meet the needs of the initial plant expansion.

Furthermore, the scope and fees are based upon an assumed site and treatment process. If changes are required, the fees and scope will be modified by addendum or by use of supplemental funds.

DELIVERABLES

Project deliverables will include the following.

- Meeting and stakeholder workshop minutes (Adobe pdf format)
- Monthly status reports and updated project schedules (included with monthly invoices)
- Presentation materials for the Community Outreach Meeting and BCC Meeting
- Reclaimed water hydraulic model
- Environmental (NEPA) investigation technical memorandum and hazardous materials testing results
- Draft Sewer Master Plan Addendum for South County (6 paper copies and 1 Adobe pdf copy)
- Draft Reclaimed Water Master Plan (6 paper copies and 1 Adobe pdf copy)
- Final Sewer Master Plan Addendum for South County (6 signed and sealed paper copies and 1 Adobe pdf copy)
- Final Reclaimed Water Master Plan (6 signed and sealed paper copies and 1 Adobe pdf copy)
- Topographic and Boundary Survey
- Draft Preliminary Engineering/Basis of Design Report, 30% Design (Adobe pdf format)
- Final Preliminary Engineering Report/Basis of Design Report, 30% Design (6 paper copies and 1 Adobe pdf copy)
- 60% design submittal package, including equipment list, and preliminary OPCC (Adobe pdf format)
- 90% design submittal package and OPCC (Adobe pdf format)
- ERP application package
- FDEP Substantial Modification permit application, including supporting documentation including capacity analysis reports, annual reclaimed water report, and O&M report
- Standard County permits, such as site plan reviews, stormwater, and zoning
- Issue for Bid submittal package and updated OPCC (6 signed and sealed paper copies and 1 Adobe pdf copy)
- Responses to bidders' questions
- Bid tabulation and letter of recommendation
- Master submittal and RFI logs
- Shop drawing reviews (Adobe pdf format)
- RFI Responses, Field Orders, and Change Orders (Adobe pdf format)
- Items to Complete (ITC) and Punch Lists
- Record drawings (2-11"x 17" and 2- full size signed and sealed paper copies and 2 reproducible Adobe pdf copies (11"x17" and 24"x36") and viewable 3D model with BIM data attached, permit completion submittals
- O&M manual (3 paper copy and 1 Adobe pdf copy, searchable and linked table of contents)

BUDGET

The work will be billed on a lump sum basis for Phases 1 and 2. Phase 3 services will be billed at a not to exceed basis. The fees for the various tasks are outlined below.

Phase 1 - Master Planning and Preliminary Engineering

Task 1 – Project Initiation, Management and Administration		$ 341,200.00
Task 2 – Sewer Master Plan Addendum for South County Initial Evaluations		$ 195,070.00
Task 3 – Reclaimed Water Master Plan Initial Evaluations		$ 143,940.00
Task 4 – Preliminary Engineering/Basis of Design Report		$ 253,700.00
	Subtotal	$ 933,910.00

Phase 2 - Design Services

Task 5 – Design Tasks	(fee is in subsequent Phase 2 tasks)	
Task 6 – Design Related Field Investigation		$ 228,750.00
Task 7 – Permitting		$ 111,820.00
Task 8 – 60% Design Phase		$ 928,180.00
Task 9 – 90% Design Phase		$ 525,500.00
Task 10 – Final Design Phase		$ 189,370.00
Task 11 – Bid Phase Assistance		$ 26,840.00
	Subtotal	$ 2,010,460.00

Phase 3 - Construction Phase Services

Task 12 – Construction Administration		$ 435,720.00
Task 13 – Construction Observation		$ 0.00
Task 14 – Operation and Maintenance Manual		$ 92,600.00
	Subtotal	$ 528,320.00

Phase 4 – Supplemental Services

Task 15 – Supplemental Services		$ 50,000.00
Phases 1 through 4 TOTAL		**$ 3,522,690.00**

SCHEDULE

The Work Assignment start date will be the date of the authorization of the Work Assignment for each phase by the County. The schedule for each phase is presented below:

Phase 1 – 270 calendar days (*)
Phase 2 – 365 calendar days
Phase 3 – 730 calendar days

* The goal is to have the Draft Site Selection Technical Memorandum completed by September 20, 2019 so that recommendations can be presented to the BCC at the October 29, 2019 workshop.

A comprehensive Microsoft Project Schedule as outlined in RFP No. 2019000159 will be submitted to the County within 30 days of authorization for Phase 1 and conceptual schedules will be developed for Phases 2 and 3. Schedules will be updated prior to beginning each subsequent phase or task requiring County approval and will be contingent upon receiving direction from the County to proceed to the next phase or task.

ASSUMPTIONS AND EXCLUSIONS

- Estimated fees are based on our current understanding of the project as summarized above. This Scope of Services and budget will be reviewed with the County following the completion of Phase 1 – Master Planning and Preliminary Engineering.
- Permitting services beyond those specifically included in the Scope of Services will be evaluated and addressed by addendum or supplemental services. All permit fees, plan review fees, or other regulatory agency fees will be paid directly by the County.
- Permits required during construction will be the responsibility of the Contractor, including NPDES permitting for construction activities. Engineer to prepare one submittal to County permitting/zoning and will assist Contractor with building permits.
- Scheduling impacts due to permitting requirements may occur and are beyond the Engineer's control.
- If wildlife impacts within the project area are unavoidable, additional effort will be required to identify and permit measures to mitigate the impacts.
- The project site is assumed to be free of soil or groundwater contamination.
- Fees assume that all proposed work will occur within County owned lands or easements and will be limited to the boundaries of the existing site
- The County will coordinate all internal stakeholders and invite them to meetings, presentations, and workshops.
- The County will provide all Community Outreach activities.
- The project schedule is predicated on usual review times for the County (2-weeks) and all regulatory agencies (30-days).
- County standard details for construction materials and features will be provided to the Engineer by the County and are available online.
- The County will be responsible for all construction administration, except as identified in Task 12.
- The County shall provide all daily coordination with the contractor throughout the construction.