RESOLUTION NO. 23-97

A RESOLUTION OF THE CITY OF PANAMA CITY BEACH, FLORIDA, APPROVING A TASK ORDER WITH TAYLOR ENGINEERING, INC. RELATED TO THE 2023 ANNUAL WETLAND MONITORING AND REPORTING, IN THE TOTAL AMOUNT OF $49,917.90.

BE IT RESOLVED that the appropriate officers of the City are authorized to execute and deliver on behalf of the City that certain Task Order to its Master Services Agreement with Taylor Engineering, Inc. relating to Professional Engineering Services for Major Environmental Engineering Services I, related to the 2023 Annual Wetland Monitoring and Reporting, in an amount not to exceed Forty-Nine Thousand, Nine Hundred Seventeen Dollars and Ninety Cents ($49,917.90), in substantially the form **attached** as Exhibit A and presented to the Council today, with such changes, insertions or omissions as may be approved by the City Manager and whose execution shall be conclusive evidence of such approval.

THIS RESOLUTION shall be effective immediately upon passage.

PASSED in regular session this 26th day January, 2023.

CITY OF PANAMA CITY BEACH

By: _____
Mark Sheldon, Mayor

ATTEST:

_____
Lynne Fasone, City Clerk

January 10, 2023

Mr. Mark Shaeffer, P.E.
Utilities Director
City of Panama City Beach
17007 Panama City Beach Parkway
Panama City Beach, Florida 32413

EMAILED

Re: 2023 Annual Wetland Monitoring and Reporting Proposal
Wastewater Reuse to Wetlands Project
(P2022-215)

Dear Mr. Shaeffer:

On behalf of Taylor Engineering, I am pleased to submit this proposal for 2023 wetland monitoring and reporting services in compliance with Florida Department of Environmental Protection Permit No. FL0021512 for the City's Wastewater Reuse to Wetlands Project. Exhibit A contains our proposed scope of work and Exhibit B contains a detailed breakdown of our proposed fees.

We greatly appreciate the opportunity and look forward to continuing our service to the City of Panama City Beach. If you have any questions or require additional information, please contact me at (904) 731-7040 or cellis@taylorengineering.com.

Best regards,

Christopher B. Ellis
Vice President, Environmental Services

Attachments

Scope of Work
2023 Annual Wetland Monitoring and Reporting
City of Panama City Beach Wastewater Reuse to Wetlands Project
Bay County, Florida

Introduction

In compliance with Florida Department of Environmental Protection (FDEP) Permit No. FL0021512, authorizing Panama City Beach Wastewater Treatment Plant No. 1, the City of Panama City Beach (City) completes ongoing field data collection and annual wetlands monitoring summary reporting for its Wastewater Reuse to Wetlands Project. Wetland monitoring data collected and analyzed under this program include surface water and groundwater hydrology, surface water and sediment quality, vegetation, fish, and threatened and endangered species. The City has historically completed data collection, analysis, and reporting using in-house biological staff. Due to recent staff losses, the City needs contracted services to continue this effort until in-house staffing vacancies are filled. To assist with the wetland monitoring and reporting and to maintain compliance with the FDEP permit, the City requested Taylor Engineering (Taylor) provide a scope of work and fee proposal for environmental services including field data collection, analysis, and reporting associated with the City's Wastewater Reuse to Wetlands Project. In response to the City's request, Taylor presents the following scope of work.

Assumptions

Taylor has developed this scope of work based on the following assumptions:

- City will provide Taylor with all pertinent data previously collected for the 2022-2023 monitoring season (i.e., all data collected after March 31, 2022).
- City will provide Taylor with digital (.doc, .pdf) copies of the most recent annual wetland monitoring report and other pertinent documents.
- City will provide Taylor with fish traps for fish monitoring activities.
- City will provide Taylor with sample/monitoring station and transect location data (e.g., xyz coordinates, if available).
- The two rain gauges located at SDE-2 and Bear Track Trail are self-recording instruments and do not require frequent visits to manually record the precipitation data. Taylor will retrieve precipitation data from the instruments concurrently with water level data collection (monthly), if required.

Task 1 Compilation of Existing Data and Review

As a preliminary task, Taylor will compile and review all previous data provided by the City including field data (water level, surface water and sediment chemistry, vegetation monitoring, etc.) and any pertinent regulatory or other guidance documents including report and field data templates that may be useful in providing background information, assisting data collection and analysis efforts, and summary report development.

Task 2 Preliminary Reconnaissance Site Visit

Taylor biologists will complete a one-day reconnaissance visit to Conservation Park to familiarize themselves with the site and to locate previously established sampling stations and monitoring transects.

This visit will help ensure that the data collection efforts described below occur in an efficient and productive manner by understanding the "lay of the land" prior to commencing field efforts. During this site visit, Taylor will also inventory existing equipment (e.g., data loggers) currently installed at the site and evaluate to ensure that the equipment is serviceable and functioning properly.

Task 3 Field Data Collection

Task 3.1 Surface Water and Groundwater Hydrologic Monitoring

As described in the 2021 Annual Wetlands Monitoring Summary Report provided by the City, five water level data loggers (Level Troll 500 data loggers manufactured by In-Situ, Inc.) are currently deployed at five monitoring stations (WEP-3, WIM-1B, WIM-2, WC-1, and SDE-2) throughout the site. Each data logger is currently configured to automatically record water level data every four hours. These data loggers require periodic visits to download recorded data and for device inspection and maintenance to ensure optimal performance. Taylor will complete monthly site visits beginning in January and continuing through May (five total) to download water level data and to inspect the data loggers from each of the five monitoring stations. If Taylor identifies an issue with data retrieval or data logger performance, Taylor will immediately inform the City and recommend corrective action. Please note that this scope of work assumes that Taylor will use existing water level monitoring equipment currently installed at the site. Should Taylor identify equipment that requires repair or replacement, the City will be responsible for those costs. This scope of work includes budget for Taylor's purchase of an In-Situ Wireless Troll ($600), a device necessary for communicating with and downloading data from the Level Troll 500 data loggers.

Task 3.2 Surface Water and Sediment Quality Sampling and Analysis

In accordance with the approved wetland monitoring plan under FDEP Permit No. FL0021512, four established surface water and sediment quality sampling stations (WIM-1A, WIM-1B, WIM-2, and WEP-3) occur within the boundaries of the wetland site. Surface water quality sampling occurs quarterly, and sediment sampling occurs annually (typically in Quarter 1).

Taylor will record surface water quality field measurements and collect one sample for laboratory analysis from each of the four sampling stations in Quarter 1/2023 and Quarter 2/2023. During each data collection event, Taylor will use YSI DSS Pro multiparameter water quality meter to collect the following field parameters: water temperature, dissolved oxygen, specific conductance, and pH. In addition, Taylor will collect one surface water sample from each sampling station for laboratory analysis. Following sample collection, Taylor will deliver the samples to The Water Spigot, Inc., a NELAC-certified environmental laboratory in Panama City, Florida, for the following chemical analyses:

- Carbonaceous Biochemical Oxygen Demand (CBOD 5)
- Total Suspended Solids (TSS)
- Fecal Coliform Bacteria
- Total Kjeldahl Nitrogen (TKN)
- Total Nitrogen
- Total Ammonia Nitrogen
- Nitrate + Nitrite
- Total Sulfate
- Total Phosphorus
- Chlorophyll a

Taylor will collect one sediment sample from each of the four sampling stations during Quarter 1/2023. Following sample collection, Taylor will deliver the samples to The Water Spigot, Inc. for sulfide analysis via EPA Method 9030A.

All field measurement, sample collection and handling, and equipment decontamination activities will occur in strict compliance with all appropriate FDEP Standard Operating Procedures.

Task 3.3 Vegetation Monitoring

The wetland site currently has four vegetative monitoring stations (WIM-1A, WIM-1B, WIM-2, and WEP-3) established within the wetland site. In accordance with the approved biological monitoring program, vegetation monitoring includes assessment of both woody (canopy and subcanopy) and herbaceous vegetation. Each monitoring station includes four 25 square meter belt transects for assessment of woody canopy vegetation and four 12.5 square meter belt transects for assessment of woody subcanopy and herbaceous vegetation. Woody canopy vegetation monitoring occurs annually (typically in Quarter 3) and woody subcanopy/herbaceous vegetation monitoring occurs quarterly. Under this scope of work, Taylor will complete vegetation monitoring of the established belt transects at each monitoring station in Quarter 1/2023 (subcanopy only) and Quarter 2/2023 (subcanopy only). Taylor assumes that the City completed monitoring of the woody canopy vegetation in Quarter 3/2022 and the City will make that data available to Taylor. Consistent with previous monitoring efforts at the site, vegetation data collection along each belt transect will include species, location, and diameter at breast height (dbh) for each individual encountered for woody vegetation and species and location for herbaceous vegetation. Taylor will record woody vegetation data on the woody vegetation data sheets.

Task 3.4 Fish Monitoring

Beginning in 2012, the City has completed fish monitoring within the wetland site annually during Quarter 2. Fish monitoring consists of sample collection from six approved sampling stations (Station 1A, Station 1B, Station 2, Station 3, Fish EX 01, Fish EX 02). Fish sample collection entails deployment of a fish sampling device (Breder trap) at each of the six sampling stations for a specified duration (i.e., 1.5 hours), device retrieval, and documentation of captured fish species. This scope of work assumes that the City will provide Taylor with the fish traps used for previous data collection activities for this effort. Taylor will complete this task in Quarter 2/2023.

Task 3.5 Threatened and Endangered Species Monitoring

The City has completed annual threatened and endangered species monitoring within the receiving wetland beginning in 2011. Threatened and endangered species monitoring includes survey of four fixed, 1,000-foot transects (TE-1, TE-2, TE-3, TE-4). Along the eastern side of each transect, the City established 50-foot x 50-foot (2,500 square feet) monitoring plots spaced at ten foot intervals for a total of ten monitoring plots per transect. Within each monitoring plot, a field biologist recorded direct observations of threatened and endangered species and all distinctive signs of tracks, scat, burrows, or the remains of any wildlife species. In addition, all bird species were surveyed by sight and sound for a period of three minutes at each monitoring plot. Monitoring occurred during both morning and afternoon hours. Taylor will replicate this monitoring protocol for threatened and endangered species within the wetland site. Taylor will complete this task during Quarter 2/2023.

Task 4 Data Analysis and Annual Wetlands Monitoring Summary Report

Taylor will analyze the field data collected in Task 3 and develop of the annual wetlands monitoring summary report for the 2023 monitoring period (May 2022 – May 2023). Taylor will use the previous monitoring report as a template and for guidance on the appropriate level of detail in summarizing and presenting the data. Taylor will provide the draft report to the City for review and comment. If necessary, Taylor will revise the draft report based on the City's comments and develop the final report for submittal to the City and FDEP. As part of the report submittal to the City, Taylor will include copies of all data collected during the field data collection effort in digital format (e.g., .pdf, .xls, etc.).

Schedule

The table below provides a proposed schedule for completion of this project.

Task No.	Description	Months from Notice to Proceed					
		1	2	3	4	5	6
1	**Compilation of Existing Data and Review**						
2	**Preliminary Reconnaissance Site Visit**						
3	**Field Data Collection**						
4	**Data Analysis and Annual Wetlands Monitoring Summary Report**						

Fee Summary

Taylor will complete the work described herein for a lump sum, fixed fee cost of $49,917.90 as tabulated and summarized below. Exhibit B provides a detailed breakdown of the proposed fees on a task-by-task basis.

Task No.	Description	Total Fee
1	**Compilation of Existing Data and Review**	$2,548.00
2	**Preliminary Reconnaissance Site Visit**	$4,394.65
3	**Field Data Collection**	$32,967.25
4	**Data Analysis and Annual Wetlands Monitoring Summary Report**	$10,008.00
	TOTAL	**$49,917.90**

TAYLOR ENGINEERING, INC.
COST SUMMARY BY TASK
P2022-215: CITY OF PANAMA CITY BEACH WWTP WETLAND MONITORING

TASK 1: Compilation of Existing Data and Review

Labor	Hours	Cost	Task Totals
Senior Environmental Scientist	8.0	1,360.00	
Staff Environmental Scientist	8.0	864.00	
Staff CAD/GIS	4.0	324.00	
Total Man-Hours	20.0		
Labor Cost			2,548.00
Total Task 1			2,548.00

TASK 2: Preliminary Reconnaissance Site Visit

Labor	Hours	Cost	Task Totals
Senior Environmental Scientist	12.0	2,040.00	
Staff Environmental Scientist	14.0	1,512.00	
Total Man-Hours	26.0		
Labor Cost			3,552.00
Non-Labor	Units	Cost	
Hotel	2.0	300.00	
Meals	2.0	130.00	
Mileage	630.0	412.65	
Total Non-Labor Cost			842.65
Total Task 2			4,394.65

TASK 3: Field Data Collection

Labor	Hours	Cost	Task Totals
Senior Environmental Scientist	86.0	14,620.00	
Staff Environmental Scientist	90.0	9,720.00	
Total Man-Hours	176.0		
Labor Cost			24,340.00
Non-Labor	Units	Cost	
Hotel	16.0	2,400.00	
Meals	16.0	1,040.00	
Mileage	3,150.0	2,063.25	
In-Situ Wireless Troll (for WL data retrieval)	1.0	600.00	
Laboratory Services (The Water Spigot, Inc.)	1.0	2,524.00	
Total Non-Labor Cost			8,627.25
Total Task 3			$ 32,967.25

P2022-215: CITY OF PANAMA CITY BEACH WWTP WETLAND MONITORING

TASK 4: Data Analysis and Annual Wetlands Monitoring Summary Report

Labor	Hours	Cost	Task Totals
Senior Environmental Scientist	36.0	6,120.00	
Staff Environmental Scientist	36.0	3,888.00	
Total Man-Hours	72.0		
Labor Cost			10,008.00
Total Task 4			$ 10,008.00

Project Total $ 49,917.90