RESOLUTION NO. 24-165

A RESOLUTION OF THE CITY OF PANAMA CITY BEACH, FLORIDA, APPROVING A COMBINED TASK ORDER AND NOTICE TO PROCEED WITH GEMINI ENGINEERING AND SCIENCES, INC. FOR STORMWATER WATER QUALITY INVESTIGATION RELATED TO LULLWATER LAKE BASIN IN THE AMOUNT NOT TO EXCEED $425,000.00.

BE IT RESOLVED that the appropriate officers of the City are authorized to execute and deliver on behalf of the City that certain Combined Task Order #2024-02 to its Master Services Agreement with Gemini Engineering and Sciences, Inc. for Professional Stormwater Engineering Services dated December 28, 2021, related to the Lullwater Lake Basin Stormwater Water Quality Investigation, in an amount not to exceed Four Hundred Twenty-Five Thousand Dollars ($425,000.00), 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.

THIS RESOLUTION shall be effective immediately upon passage.

PASSED, APPROVED AND ADOPTED in special session this 8th day of August, 2024.

CITY OF PANAMA CITY BEACH

By: _____
Stuart Tettemer, Mayor

ATTEST:

_____
Lynne Fasone, City Clerk

COMBINED TASK ORDER AND
NOTICE TO PROCEED

TASK ORDER NO. 2024-02 DATE 7/26/2024

Reference is made to that certain MASTER SERVICE AGREEMENT BETWEEN CITY OF PANAMA CITY BEACH AND GEMINI ENGINEERING & SCIENCES, INC. RELATING TO PROFESSIONAL ENGNEERING SERVICES dated **12/28/21**, (the "Agreement"), the terms, conditions, and definitions of which are incorporated herein as if set forth in full. Neither party is in breach of the Agreement.

Pursuant to the Agreement, Engineer agrees to perform the specific tasks set forth upon incorporated Attachment A, Scope of Services, relating to Lullwater Lake Restoration and Stormwater Water Quality Improvement.

Engineer's total compensation shall be (check one):
X a stipulated sum of $425,000.00; or
____ a stipulated sum of $_____ plus one or more specified allowances listed below which may be authorized in writing by the City Manager or his designee,
Allowance of $ _____ for _____, and
Allowance of $ _____ for_____; or
____ a fee determined on a time-involved basis with a maximum cost of $_____;

as set forth upon incorporated Attachment B, Fee Breakdown, and shall be paid in monthly installments as specified in the Agreement.

Work shall begin on August 8, 20 24, and shall be completed within 205 calendar days. The date of completion of all work is therefore March 1, 20 25. Liquidated delay damages, if any, are set at the rate of $ 0.00 per day. There are no additional rights and obligations related to this Task Order other than as specified in the Agreement.

Upon execution of this task order by both Engineer and City, Engineer is directed to proceed.

IN WITNESS WHEREOF the parties have caused these presents to be executed in their names on the date shown.

Witness:

Vice President

ATTEST:

City Clerk

GEMINI ENGINEERING & SCIENCES, INC.

By: Date: July 26, 2024
Its: President

CITY OF PANAMA CITY BEACH, FL.

By: Date: 9-3-24
City Manager

Lullwater Lake Restoration and
Stormwater Water Quality Improvement

City of Panama City Beach

July 23, 2024

SCOPE OF SERVICES

SECTION 1. PROJECT BACKGROUND

This statement of work outlines the responsibilities of Gemini Engineering & Sciences (PROFESSIONAL) and the City of Panama City Beach (CITY) for the expanded Stormwater Water Quality Investigation of the Lullwater Lake Basin. Leveraging funding from the Florida Department of Environmental Protection (FDEP), this effort builds upon an on-going assessment (Task Order 2023-01) to develop a comprehensive investigation and enhancement of the environmental and stormwater management framework within the Lullwater Lake Basin. The overall outcomes of this project, in conjunction with the original efforts initiated by the CITY, aim to facilitate the construction of improved connectivity and flow between the lakes, strategic removal of invasive aquatic vegetation, and dredging of accumulated organic sediments (muck) in the lake system. These actions are designed to significantly improve the ecological health and water quality of the basin, aligning with the CITY's Stormwater Management Master Plan (SMMP) and broader environmental restoration objectives.

The scope of services outlined here serves as a preparatory step, providing critical data and insights necessary for subsequent, more targeted restoration efforts ultimately aimed at significantly improving the ecological health and water quality of the basin, aligning with the CITY's Stormwater Management Master Plan (SMMP) and broader environmental restoration objectives.

SECTION 2. SCOPE OF SERVICES

The tasks designated as Phase I under Task Order 2023-01, and subsequently clarified as Part I by the Scope of Work dated March 21, 2023, will be finalized as planned. However, prompted by the insights gained from the Part I tasks and the funding recently received from the Florida Department of Environmental Protection (FDEP), the Phase II tasks originally outlined in Task Order 2023-01 are herein redefined, expanded, and designated as Part II. This strategic shift allows for a more comprehensive approach to the proposed improvements. As detailed in Task Order 2023-01, the progression in design and permitting for these improvements is contingent upon the enhanced water quality sampling initiatives being proposed and subsequent discussions with regulatory agencies. Therefore, we provide our current, best-estimated outline of the tasks based on the latest available information.

The effort included in this work order aligns with Task no. 1, as indicated in the City's agreement no. LPA0609 with FDEP.

The Scope of Work for this assignment will include the following specific services.

Task 1 – Regulatory Coordination and Permitting Preparation

The objective of this task is to ensure full regulatory compliance and smooth progression of the permitting process for the Lullwater Lake project. This involves early and proactive coordination with the Florida Department of Environmental Protection (FDEP), comprehensive research into necessary permits, and strategic discussions with City staff to align project planning with regulatory requirements and local policies.

Key meetings will also include a general public meeting to engage broader community feedback, and a presentation to the City Council to align project objectives and outcomes with local governance priorities.

Additional activities under this task include quarterly progress reporting, scheduling and conducting key meetings, and capturing periodic aerial or street-view imagery of the project site for detailed progress documentation during the course of the Design and Permitting task.

Task 2 – Expanded Water Quality and Sediment Sampling

The objective of this task is to conduct a systematic and thorough assessment of water quality and sediment characteristics within Lullwater Lake and the encompassing lake system. This assessment will build on previously gathered data, expanding the scope to identify and quantify sources of nutrients, contaminants, and potential impacts from stormwater activities. The sampling strategy is designed to capture seasonal variations and provide a comprehensive dataset for informed decision-making.

Sampling sites are strategically selected to cover the entire lake system, including Lullwater, Star, Palm, Gulfview, and Seahorse Lakes, with additional sites at the northern inflow and key exchange points between lakes, as necessary. Sampling will occur during two distinct periods—spring (May 2024) and summer (July-August 2024)—to assess seasonal conditions.

Up to nine (9) lake bottom sediment cores will be collected and analyzed for geotechnical and chemical parameters. This will include testing for organic compounds and other sediment-bound contaminants to assess the sediment's quality and its potential impact on water quality and aquatic life.

Up to fourteen (14) water samples will be collected for a detailed analysis of water quality parameters. The analyses will include, but not be limited to:

- Nutrients (nitrogen, phosphorus) to understand eutrophication risks.
- Fundamental water quality parameters including pH, temperature, dissolved oxygen, conductivity, total dissolved solids (TDS), and oxidation-reduction potential (ORP).
- Organic matter content, biological oxygen demand (BOD), to assess the organic load and its effect on oxygen levels and aquatic life.
- Microbial indicators, such as fecal coliform and E. coli to evaluate biological contamination risks.
- Metals to assess potential toxicity and regulatory compliance, such as arsenic, cadmium, chromium, copper, lead, nickel, zinc, barium, selenium, and mercury.
- General chemistry such as alkalinity, hardness, color, total suspended solids (TSS), and chlorides.
- Additional chemical parameters such as Volatile Organic Compounds (VOCs), pesticides, and herbicides to identify chemical pollutants and their sources.

The combined supplemental data from sediment and water quality sampling will be utilized to assess the potential release of contaminants by possible dredging or excavation, which will be considered as part of the stormwater improvements. This comprehensive analysis will inform the project team about the current state of the lake system.

Task 3 – Targeted Surveys

This task is designed to supplement and enhance the data collected during Phase I, addressing any deficiencies and ensuring a robust foundation for project decisions. The surveys may cover:

- Additional Topographic Surveys to provide detailed elevation data across the project area, focusing on previously unexplored or inadequately mapped sections.
- Structural Surveys of Existing Infrastructure to evaluate the condition and capacity of existing stormwater infrastructure to determine necessary upgrades or replacements.
- Right of Way (ROW) and Boundary Surveys to identify legal boundaries and rights of way that may impact the construction and maintenance of potential design elements.
- Utility Surveys to locate and document existing underground utilities within and surrounding the project area.
- Supplemental Hydrographic Surveys

Task 4 – Design and Permitting of Stormwater Improvements and Lake Restoration

This task focuses on the design and permitting process necessary for implementing stormwater management enhancements aimed at addressing the critical relationship between stormwater inflow and the health of the Lullwater Lake System. Key components of this task include:

- Stormwater Flow and Hydraulic Connectivity. Central to our efforts is the enhancement of stormwater flow and hydraulic connectivity, particularly to improve the existing hydraulic connectivity with Seahorse Lake, as well as conveyance to Lullwater Lake.

Improving these connections is essential for effective stormwater management, directly impacting flood mitigation and water quality.

- Vegetation and Sediment Management. A strategic approach to managing vegetation and sediment will include evaluating staging options for the efficient spraying, removal, and disposal of invasive vegetation and accumulated sediments (muck).

- Dredge Basin Consideration. The design and implementation of a dredge basin within the project area as a sediment management strategy will be explored. This will facilitate the containment and potential repurposing of dredged materials.

- Best Management Practices (BMPs). Investigation of potential BMPs, including deployment of a floating wetlands, and potentially others such as baffle boxes, into the stormwater management design. These practices are effective in capturing sediment and pollutants, thereby improving stormwater quality in the lake system.

- Lakeview Circle Emergency Access. During the design process, we will assess the necessity for temporary secondary egress and ingress to the Lakeview Circle neighborhood to support potential future construction activities. This secondary access, while initially intended to mitigate disruptions during future construction, could potentially be established as a permanent emergency entrance/exit.

- Permitting and Regulatory Compliance. Obtaining the necessary environmental and construction permits for spraying, harvesting, and dredging activities, ensuring that all aspects of the stormwater management enhancements comply with local, state, and federal regulations.

- Use of Modeling Tools. Employing modeling tools to evaluate the long-term effectiveness of the proposed stormwater management enhancements. While not the sole focus, models like BATHTUB can provide valuable insights into nutrient loading and water quality changes over time, informing adaptive management strategies.

- Community and Economic Considerations. The design and scheduling of stormwater management activities will be carefully planned to minimize impacts on the City's tourism economy.

SECTION 3. SERVICES NOT INCLUDED

The following services are not provided as part of this Scope of Services:

- Direct implementation of stormwater management improvements.
- Long-term operation and maintenance of installed stormwater solutions.

- Environmental monitoring.
- Benefit-Cost Analysis
- Field survey of the wetland delineation line around Lake Lullwater and proposed dredge limits will not be required. Will assume work will be completely within wetlands.
- Professional geotechnical assessment is not currently assumed.

SECTION 4. DELIVERABLES

Gemini Engineering & Sciences will complete Tasks 1 through 4 and deliver to the CITY the following:

- Detailed reports from the water quality and sediment sampling efforts.
- Results of the enhanced topographic surveys.
- Conceptual and detailed designs, documentation, and permits of the proposed stormwater improvements.

SECTION 5. INFORMATION AND SERVICES TO BE PROVIDED BY CITY

The CITY will provide the following information and services at the time of notice to proceed:

- Latest stormwater inventory GIS features and photographs for our study areas, as available.
- Potential additional information of City-owned septic, sewer and stormwater infrastructure, as necessary, beyond what is available within the City's stormwater inventory.
- Assistance with regulatory coordination, providing necessary documentation, support, and attendance associated with permitting research.
- Support for community engagement activities, facilitating access to community groups and public meetings.

SECTION 6. PROJECT SCHEDULE

Notice to proceed will be August 8, 2024. Non-permit related tasks to be completed by March 1, 2025. Regulatory permitting timelines are agency dependent, and could exceed 120 days from initial submittal.

SECTION 7. COMPENSATION

Gemini Engineering & Sciences shall perform the Scope of Services on a Not-to-Exceed basis per task. The total Not-to-Exceed fee for this Scope of Services is $425,000.00.