



LETTER OF TRANSMITTAL

August 16, 2023

TO: Town of Lake Park
Attn: Roberto Travieso, MPA, Director
Department of Public Works
640 Old Dixie Hwy
Lake Park, FL 33403

FROM: Raul M. Mercado, PE, CFM
Water Resources Management Associates, Inc.
250 Tequesta Drive, Suite 302
Tequesta, FL 33469
(561) 529-2075 Office

RE: Update of Town of Lake Park Vulnerability Assessment

Dear Ms. Travieso,

Attached please find WRMA's proposed Scope of Work and Cost Proposal for the update of Town of Lake Park Vulnerability Assessment

WRMA has structured a scope of work and cost proposal per the Department of Environmental Protection Resilient Florida Grant Program Vulnerability Assessment Compliance Checklist Certification, and also per the provision of Section 161.551, F.S. Section 161.551, Florida Statutes addressing Sea level Rise Projections (SLIP) Rule studies. The latter mandates the use of at least two NOAA tide gages which requires us to revisit the Town of Lake Park Sea Level Rise project calculations.

The VA compliance checklist also requires extensive tidal flooding depths mapping for SLR, Coastal Surge and Rainfall Induced flooding. This entails extensive Digital Elevation Model (DEM) development along Town's waterfront coastal areas for GIS overlaying of depths and mapping. FDEP also requires detailed project GIS database metadata.

The total cost of the project is \$20,780.00 and includes assisting the Town with grant narrative text development.

Regards,

Raul M. Mercado, PE, CFM
Principal Engineer
raul.mercado@wrmaeng.com

**PROPOSED SCOPE OF SERVICES
FOR TOWN OF LAKE PARK
UPDATE OF VULNERABILITY ASSESSMENT
AUGUST 16, 2023**

PART 1.0 BACKGROUND

Background

On May 21, 2015, Governor Rick Scott signed into law Florida Senate Bill 1094, “An Act Relating to the Peril of Flood.” SB 1094 requires consideration of future flood risk from storm surge and sea level rise in certain portions of local government comprehensive plans. In accordance with SB 1094, Florida Statute section 163.3178(2)(f)1 now includes sea level rise (SLR) as one of the causes of flood risk that must be addressed in the “redevelopment principles, strategies, and engineering solutions” to reduce flood risk. SB 1954, passed in May of 2021, significantly changes the way the State of Florida plans for and address resilience and creates statewide standards for vulnerability assessments.

SB 1954 requirements included the creation of a Statewide Flooding and Sea Level Rise Resilience Plan (the Plan) to be submitted by December 1, 2023. Communities with Coastal Management Elements in their Comprehensive Plans are encouraged to have projects included in the Statewide Flooding and Sea Level Rise Resilience Plan for funding. Although not mandatory, but highly recommended, local government entities were encouraged to complete a vulnerability assessment before the 2023 Plan submission.

In August 2021 the Town of Lake Park had just completed a Sea Level Rise Assessment of its Lake Work Lagoon/Intracoastal waterway 0.8-mile waterfront and an update of the Town’s Stormwater Management Master plan that addresses Climate Change Impacts for long term stormwater Capital Improvement Plan implementation. Applying the information and data from these reports, the Town of Lake Park commissioned Water Resources Management Associates (WRMA) to prepare a Vulnerability Assessment (VA) that included coastal/Sea Level Rise -based Capital Improvement Plan (CIP) projects to be implemented as part of the Stormwater Masterplan Update for inclusion in the State’s programmatic Statewide Flooding and Sea Level Rise Resilience Plan.

The TLP Vulnerability Assessment report was submitted to the State and late 2021 and after several attempts to get feedback from the State on the Vulnerability Assessment completed for the Town, the Florida Department of Environmental Protection (FDEP) Resilient Florida Program, Office of Resilience and Coastal Protection provided feedback on August 2, 2023.

FDEP stated that the Town of Lake Park VA is not fully compliant with the requirements of SB 1094 and with the provision of Section 161.551, F.S. Section 161.551, Florida Statutes addressing Sea level Rise Projections (SLIP) Rule studies. The rule requires state agencies, municipalities, counties, special districts, authorities, or other corporate bodies of the state, which commission or manage a construction project within the coastal building zone using funds appropriated from the state to conduct a sea-level impact projection (“SLIP”) study.

WMA did not consider the SLIP Rule requirements as the rule was not in effect at the time of the VA preparation.

The Town of Lake Park has requested WRMA to provide a proposal to correct all deficiencies of the VA for compliance with SB 1094 and the later SLIP rule requirements. The proposal will be the basis for a pending grant application with FDEP for development of the VA. WRMA will assist with RCP questions narrative.

WRMA has structured a scope of work and cost proposal per the Department of Environmental Protection Resilient Florida Grant Program Vulnerability Assessment Compliance Checklist Certification. Task 1.0 addresses Subparagraphs 380.093(3)(d)1. and 380.093(3)(d)2., F.S. which detail the VA'S Technical requirements (Peril of Flood Compliance Plan amendments, Flood Depths Mapping, and Critical Assets List). Task 2 addresses Subparagraph 380.093(3)(c)2., F.S. dealing with the VA's Reporting requirements (Final VA Report and GIS Database). Task 3 entails assisting with grant questions text narrative development.

The following Scope of Services is proposed.

PART 2.0 SCOPE OF SERVICES TO BE PERFORMED BY ENGINEER

TASK 1.0 VA TECHNICAL REQUIREMENTS

The Town of Lake Park will be applying for FDEP Coastal Resiliency Program grants for which the SLIP rule will apply and therefore the VA update will also incorporate more specific details of the previously completed Town of Lake Park Sea Level Rise Study and the applicability of the results to meet SLIP requirements.

1.1 Peril of Flood Compliance

WRMA will review the Town's current Peril of Flood Compliance Plan amendments and determine compliance with paragraph 163.3178(2)(f), F.S. and if applicable suggest compliance language.

1.2 Tidal Flooding Depths

WRMA will investigate the availability of local sea level data that includes at least two NOAA tide gages to determine depth of tidal flooding. WRMA will interpolate between the two selected closest NOAA tide gauges and/or utilize the gauge with the highest mean sea level per Department approval. All analyses performed in North American Vertical Datum of 1988.

WRMA will include at least two local sea level rise scenarios (2040 and 2070), which must include the 2017 NOAA intermediate-low and intermediate-high sea level rise projections for the determination of tidal depth flooding along the Town's waterfront. Tidal depth analysis results will be geographically displayed for each scenario and planning horizon.

1.3 Coastal Surge Depths

WRMA, using publicly available NOAA or FEMA storm surge data will determine coastal surge flood depths and assess if these surge events equal or exceed current 100-year flood event.

1.4 Rainfall Induced Flooding

Rainfall-induced flooding will be considered using spatiotemporal analysis per existing hydrologic Stormwater Master Plan hydraulic modeling results. Depth of rainfall-induced flooding for 100-year storm and 500-year storm events will be provided.

1.5 Critical Assets List

Regionally significant assets that are impacted by flooding and sea level rise will be identified. The list will be prioritized by area or immediate need and will identify which flood scenario(s) impacts each asset.

TASK 2.0 VA REPORTING REQUIREMENTS**2.1 Final Vulnerability Assessment Report**

A Final Vulnerability Assessment Report will be provided with details on the results and conclusions, including illustrations via maps and tables.

2.2 Geospatial Database

WRMA will provide geospatial data applied for the tidal depth and mapping analysis in conformance with FDEP's electronic file metadata formats.

TASK 3.0 RCP GRANT APPLICATION QUESTIONS NARRATIVE**3.1 Questions Text Narrative**

WRMA will provide the appropriate grant text narrative for the following questions:

Explain the demonstrated need, which the project addresses.

- Explain how the proposed project fits into one or more of the Project Types
- If the project is a Vulnerability Assessment for Peril of Flood Compliance or other, please describe how the project will meet the outlined requirements for a Vulnerability Assessment under s. 380.093, F.S.
- If applicable, explain how the proposed project adapts critical assets to the effects of flooding and sea level rise as defined in s. 380.093, F.S.
- Discuss how the project is feasible and can be completed by the grant period deadline.
- Has the applicant entity(ies) performed a prior vulnerability assessment, separate from what is being proposed in this application?

TASK 4.0 PROJECT MANAGEMENT AND MEETING COORDINATION**4.1 Meetings**

Coordination with the TOWN and state agencies is necessary for the successful planning and development of this project. The assigned Project Manager shall attend all scheduled meetings either by phone, virtual or in person meetings with TOWN staff and coordinate with other agencies as necessary to move the project towards completion.

4.2 QA/QC

WRMA shall perform a quality control review of deliverable submissions and review other document submissions and attachments from the TOWN prior to submission to the state.

Deliverables

WRMA will provide the following deliverables for the update of the Town of Lake Park Vulnerability Assessment Report

- Final Vulnerability Assessment Report
- Geospatial data in an electronic file format
- Grant questions text narrative

END OF SCOPE OF SERVICES

Exclusions: This Scope of Work specifically excludes work not mentioned above, including, but not limited to, the following:

- a) Biological/ecological evaluation assistance, including wetlands (delineation), threatened and endangered species and seagrasses
- b) Water sampling and testing
- c) Easement/property acquisition
- d) Distribution of bid packages to potential bidders.

Deliverables: Deliverables are listed in the Scope of Services. ENGINEER will provide the TOWN draft documents for TOWN review and comment. Upon receipt of TOWN comments, ENGINEER shall finalize the documents and provide electronic and hard copies to the TOWN.

PART 3.0 PERIODS OF SERVICE

From Notice to Proceed through submission of deliverable.

Estimated Schedule:

Based on Notice to Proceed (NTP) to Final Completion of Services. ENGINEER shall complete the work in order within 60 days from Notice to Proceed.

<u>Tasks ID</u>	<u>Deliverable Due Date</u>
Task 1 – VA Technical Requirements	60 Days from NTP
Task 2 – VA Reporting Requirements	60 Days from NTP
Task 3 – RCP Grant Application Questions Narrative	60 Days from NTP
Task 4 – Project Management and Meeting Coordination	60 Days from NTP

PART 4.0 FEES

The proposed Not-to-Exceed fee for this project is **\$20,780.00**. This fee includes all direct labor fees.

Note that monthly progress billings are not tied to deliverables. Some tasks will require multiple billing periods prior to provision of 100% complete deliverables. Progress billings will be allowed prior to submission of completed deliverables.

A task-by-task breakdown of fees is provided.

TOWN OF LAKE PARK
UPDATE OF VULNERABILITY ASSESSMENT
RATES AND LABOR HOURS

TASK ITEM AND DESCRIPTION	Senior Engineer	Associate Engineer	Total Hours (hrs)	Fees (Not to Exceed)	Task Total
	\$ 115.00	\$ 110.00			
1.0 VA TECHNICAL REQUIREMENTS					\$ 13,960.00
1.1 Peril of Flood Compliance	4	2	6	\$ 680.00	
1.2 Tidal Flooding Depths	4	40	44	\$ 4,860.00	
1.3 Coastal Surge Depths	4	32	36	\$ 3,980.00	
1.4 Rainfall Induced Flooding	4	16	20	\$ 2,220.00	
1.5 Critical Assets List	4	16	20	\$ 2,220.00	
2.0 VA REPORTING REQUIREMENTS					\$ 4,980.00
2.1 Final VA Report	24	8	32	\$ 3,640.00	
2.2 GIS Database	4	8	12	\$ 1,340.00	
3.0 RCP GRANT APPLICATION QUESTIONS NARRATIVE					\$ 460.00
3.1 Questions Text Narrative	4		4	\$ 460.00	
4.0 PROJECT MANAGEMENT					\$ 1,380.00
4.1 Meetings	4		4	\$ 460.00	
4.2 QA/QC	8		8	\$ 920.00	
GRAND TOTAL FEE					\$ 20,780.00