1. **BACKGROUND**
   1. Lake County Emergency Management provides comprehensive and coordinated preparedness, response, recovery, and mitigation services to the residents of Lake County. The primary goals of emergency management are to protect life, protect property, and protect the environment from the impacts of natural or human-made emergencies and disasters.
   2. The County recently received a grant from the Florida Department of Environmental Protection (FDEP) to conduct a countywide vulnerability assessment to ensure the County has a vulnerability assessment that is in compliance with s.380.093 Florida Statutes to be eligible for future mitigation and resilience projects.
2. **SCOPE OF SERVICES**
   1. Consultant shall conduct a comprehensive, countywide vulnerability assessment to include all municipalities within the county. The vulnerability assessment conducted by the consultant must be consistent with the requirements of s. 380.093 Florida Statutes. The project will rely on the FDEP’s Scope and Technical Guidance.
   2. Consultant shall include an assessment of community-wide critical assets as defined in s. 380.093 Florida Statutes for the County as well as all included municipalities.
   3. Consultant shall provide regular progress reports (no less frequent than quarterly) to the County and/or to FDEP, as well as final financial and programmatic closeout reporting information.
   4. Consultant shall work under a lump sum professional fee arrangement based on a schedule of payments.
      1. Consultant shall submit a proposed payment schedule with the initial proposal response.
      2. Consultant shall also submit a list of project deliverables and their delivery schedule for the cited deliverables with their initial proposal response.
3. **DELIVERY REQUIREMENTS**
   1. The following deliverables will be required during this project:
   2. Task 1: Kick-off Meeting. The consultant will develop an overall project management plan and address initial actions and then conduct a kick-off meeting for the project. Meeting attendees should discuss the project scope, project goals, schedule, key milestones, and deliverables in order to develop a consistent project approach. The kick-off meeting should identify potential representatives to serve on the project steering committee. Prior to the meeting, the consultant will prepare the sign-in sheet, draft project schedule, and other meeting materials as necessary. The consultant will prepare a draft list of representatives to serve on the project steering committee based on discussions with the County. As part of the project kick-off meeting, the consultant will provide the following:
      1. Meeting agenda to include location, date, and time of meeting;
      2. Meeting sign-in sheets or attendance records with attendee names and affiliations;
      3. A copy of the presentation(s) and any other materials created for distribution or use at the meeting, as applicable;
      4. Meeting minutes which document all agreed upon outcomes of the meeting;
      5. Draft list of steering committee members;
      6. Draft email to potential steering committee members to request their participation on the committee. Email should include project purpose, goals, schedule, project meeting dates and locations, and overall desired outcomes.
   3. Task 2: Assemble Steering Committee. The consultant will review and approve the steering committee list and then distribute the draft email prepared in Task 1 to the steering committee members. The email requests steering committee member participation and to provide confirmation of acceptance or denial. The consultant will provide the list of local representatives that have confirmed participation on the steering committee. The list should include the name, organization/affiliation, position title, and contact information of each steering committee member.
   4. Task 3: The consultant will conduct at least two public outreach meetings during the project. The purpose of the first meeting is to allow the public to provide input during the initial data collection stages, to include input on preferred methodologies, data for analyzing potential sea level rise impacts and/or flooding, guiding factors to consider, and critical assets important to the community. The consultant will prepare all meeting invitations, meeting materials, presentations, and graphics utilized during the meeting, as applicable. As part of Task 2, the consultant will provide the following:
      1. Meeting agendas to include location, date, and time of meeting;
      2. Meeting sign-in sheets with attendee names and affiliation;
      3. A copy of the presentation(s) and any materials created in preparation of or for distribution at the meeting, as applicable;
      4. A copy of the file or weblink of the video or audio recording from the meeting, if applicable;
      5. A summary report including attendee input and meeting outcomes.
   5. Task 4: Acquire Background Data and Municipal Outreach. The consultant will research and compile the data needed to perform the vulnerability assessment based on the requirements as defined in Section 380.093, F.S. The consultant will, in coordination with the County and the Department of Environmental Protection, identify municipalities within the County without a statutorily compliant vulnerability assessment and work to collect municipal data for inclusion in the County-based vulnerability assessment. Three main categories of data are required to perform a vulnerability assessment: 1) critical and regionally significant asset inventory, 2) topographic data, and 3) flood scenario-related data. GIS metadata should incorporate a layer for each of the four asset classes as defined in paragraphs 380.093(2)(a)1-4, F.S. GIS files and associated metadata must adhere to the Resilient Florida Program’s GIS Data Standards, and raw data sources shall be defined within the associated metadata. Sea level rise projection data shall include the 2017 National Oceanic and Atmospheric Administration (NOAA) intermediate-high and intermediate-low projections for 2040 and 2070, at a minimum. Other projections can be used at the consultant’s discretion. Storm surge data used must be equal to or exceed the 100-year return period (1% annual chance) flood event. In the process of researching background data, the consultant shall identify data gaps, where missing data or low-quality information may limit the vulnerability assessment’s extent or reduce the accuracy of the results. The consultant shall rectify any gaps of necessary data. As part of Task 3, the consultant will provide the following:
      1. A technical report to outline the data compiled and findings of the gap analysis;
      2. A summary report to include the recommendations to address the identified data gaps and actions taken to rectify them, if applicable;
      3. GIS files with appropriate metadata of the data compile, to include locations of critical assets owned or maintained either by the County or municipalities included within the county, as well as regionally significant assets that are classified and as defined in paragraphs 380.093 (2)(a)1-4, F.S.;
      4. All records or requests for data from municipalities without a statutorily compliant vulnerability assessment.
   6. Task 5: Exposure Analysis. The consultant will perform an exposure analysis to identify the depth of water caused by each sea level rise, storm surge, and/or flood scenario. The water surface depths (i.e. flood scenarios) used to evaluate assets shall include the following data: tidal flooding, current and future storm surge flooding, rainfall-induced flooding, and compound flooding, all as applicable, as well as the scenarios and standards used for the exposure analysis shall be pursuant to s. 380.093, F.S. GIS files and associated metadata must adhere to the Resilient Florida Program’s GIS Data Standards, and raw data sources shall be defined within the associated metadata. As part of Task 5, the consultant will provide the following:
      1. A draft vulnerability assessment report that provides details on the modeling process, type of models utilized, and resulting tables and maps illustrating flood depths for each flood scenario;
      2. GIS files with results of the exposure analysis for each flood scenario as well as the appropriate metadata that identifies the methods used to create the flood layers.
   7. Task 6: Sensitivity Analysis. The consultant will perform the sensitivity analysis to measure the impact of flooding on assets and to apply the data from the exposure analysis to the inventory of critical assets created in Task 4. The sensitivity analysis should include an evaluation of the impact of flood severity on each asset class and at each flood scenario and assign a risk level based on percentages of land area inundated and number of critical assets affected. As part of Task 6, the consultant will provide the following:
      1. An updated draft vulnerability assessment report that provides details on the findings of the exposure analysis and the sensitivity analysis, and includes visual presentation of the data via maps, graphs, and/or tables, based on the statutorily required scenarios and standards;
      2. An initial list of critical and regionally significant assets that are impacted by flooding. The list of critical and regionally significant assets must be prioritized by area or immediate need and must identify which flood scenario(s) impacts each asset.
   8. Task 7: Public Outreach Meeting #2. The consultant will conduct a second public meeting to present the results from the exposure analysis, sensitivity analysis, and draft vulnerability assessment. The purpose of the second meeting is to allow the public to provide community-specific input on the results of the analyses and to reconsider methodologies and assumptions used in the analysis for refinement. Additionally, during this meeting, the consultant will conduct exercises to encourage the public to prioritize focus areas of flooding, and the critical assets in preparation for the development of adaptation strategies and project development. Criteria should be established to guide the public’s input for the selection of focus areas. The consultant will prepare all notifications, meeting invitations, meeting materials, presentations, and graphics utilized during the meeting, as applicable. As part of Task 7, the consultant will provide the following:
      1. Meeting agendas to include location, date, and time of meeting;
      2. Meeting sign-in sheets with attendee names and affiliation;
      3. A copy of the presentation(s) and any materials created in preparation of or for distribution at the meeting, as applicable;
      4. A copy of the file or weblink of the video or audio recording from the meeting, if applicable;
      5. A summary report including attendee input and meeting outcomes, to include defining focus areas recommended by the community.
   9. Task 8: Identify Focus Areas. The consultant will identify focus areas based on the results of the second public outreach meeting and input from the steering committee, following the guidelines in Chapter 2 of the Florida Adaptation Planning Guidebook. Based on the exposure and sensitivity analyses, the consultant may assign focus areas to locations or assets that are particularly vulnerable and require the development of adaptation strategies. GIS files and associated metadata must adhere to the Resilient Florida Program’s GIS Data Standards, and raw data sources shall be defined within the associated metadata. As part of Task 9, the consultant will provide the following:
      1. A report summarizing the areas identified as focus areas, with justification for choosing each area;
      2. Tables listing each focus area with any critical assets that are contained inside the focus area;
      3. Maps illustrating the location of each focus area compared to the location of all critical assets within the geographic extent of the study;
      4. GIS files and associated metadata illustrating geographic boundaries of the identified focus areas.
   10. Task 9: Final Vulnerability Assessment Report, Maps, and Tables. The consultant will finalize the vulnerability assessment report pursuant to the requirements in s. 380.093, F.S., and based upon the steering committee and public outreach efforts. The final vulnerability assessment must include all results from the exposure and sensitivity analyses, as well as a summary of identified risks and assigned focus areas. It should contain a list of critical and regionally significant assets that are impacted by flooding and sea-level rise, specifying for each asset the flood scenario(s) impacting the asset. GIS files and associated metadata must adhere to the Resilient Florida Program’s GIS Data Standards, and raw data sources shall be defined within the associated metadata. As part of Task 9, the consultant will provide the following:
       1. Final vulnerability assessment report that provides details on the results and conclusions, including illustrations via maps, graphs, and tables, based on the statutorily required scenarios and standards in s. 380.093, F.S.;
       2. A final list of critical and regionally significant assets that are impacted by flooding. The list of critical and regionally significant assets must be prioritized by area or immediate need and must identify which flood scenario(s) impacts each asset;
       3. All electronic mapping data used to illustrate flooding and sea level rise impacts identified in the vulnerability assessment, to include the geospatial data in an electronic file format and GIS metadata; and
       4. A signed Vulnerability Assessment Compliance Checklist Certification.
   11. Task 10: Public Presentation. The consultant will assist with presenting the final vulnerability assessment results to local governing boards, technical committees, or other appropriate officers and elected officials. The purpose of the presentation is to share the findings from the final vulnerability assessment and provide recommendations of actions for adaptation strategies and future project funding. The presentation will also inform the public of the results and the future risk of sea level rise and increased flooding and encourage community participation when identifying mitigation strategies to address the flooding vulnerabilities. The consultant will prepare all notifications, meeting invitations, meeting materials, presentations, and graphics utilized during the meeting, as applicable. As part of Task 10, the consultant will provide the following:
       1. Meeting agendas to include location, date, and time of meeting;
       2. Meeting sign-in sheets with attendee names and affiliation
       3. A copy of the presentation(s) and any materials created in preparation of or for distribution at the meeting, as applicable;
       4. A copy of the file or weblink of the video or audio recording from the meeting, if applicable;
       5. A summary report including attendee input and meeting outcomes.
   12. Task 11: Local Mitigation Strategy. The results of the vulnerability assessment can be used to inform a Local Mitigation Strategy (LMS) as required by the Florida Division of Emergency Management. The LMS is usually developed at the County level and serves to reduce the risks associated with natural and man-made disasters, including sea level rise. The consultant will work with the Local Mitigation Strategy Working Group (LMSWG) to ensure the vulnerability assessment report is in alignment with the existing County LMS Plan and will be utilized during the planning process of future county LMS Plan updates. As part of Task 11, the consultant will submit a letter to the Department of Environmental Protection and the Florida Division of Emergency Management Mitigation Bureau Planning Unit, signed by the LMSWG Chair or designee, to include the following:
       1. Vulnerability assessment report will be incorporated as a reference in updating the next iteration of the LMS Plan, i.e., utilized in the next five-year update;
       2. Vulnerability assessment report will be included as an appendix to the next iteration of the LMS Plan; and
       3. The entity/entities that composed the vulnerability assessment report will be involved with the LMSWG through any of the following: at a minimum, be added to the contact list, attend meetings, participate in the planning process of the next major update; participate in the adoption of the LMS plan; and submit projects to the LMSWG to be included on LMS Prioritized Project List if not included already.
4. **COUNTY RESPONSIBILITIES**
   1. The County is responsible for timely submission of grant quarterly update reports and financial reimbursement documentation.
   2. The County is responsible for assisting the consultant in locating and securing appropriate meeting locations.
   3. The County is responsible for assisting the consultant in promoting public vulnerability assessment meetings through use of County social media channels or other methods of promotion as appropriate.
   4. The operational period of the Resilience Grant ends in March 2025. The contract will expire upon expiration of the grant period.

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