

630 North Wymore Road, Suite 370 Maitland, FL 32751 **drummondcarpenter.com** 

December 5, 2025

**EXHIBIT "A"** 

Mr. Rick Rudometkin, CPM, ICMA-CM City Manager City of Belle Isle 1600 Nebula Avenue Belle Isle, FL 32809

RE: Florida Department of Environmental Protection (FDEP) Resilient Florida Grant 23PLN26 City of Belle Isle (City) Comprehensive Vulnerability Assessment (VA)

#### Dear Rick:

Drummond Carpenter (DC) appreciates the opportunity to submit this proposal to prepare the City's VA in compliance with FDEP Resilient Florida Grant 23PLN26 that was executed in November 2024, and Section 380.093, Florida Statutes (FS), effective 2024. Our proposed scope of work, schedule, and fees are outlined below based on the understanding that the City's grant agreement expires on September 30, 2026. All deliverables are to be received by FDEP for review by June 30, 2026; therefore, time is of the essence. DC will utilize subconsultant Hale Innovation to prepare the required adaptation plan. SCOPE OF SERVICES

The following services align with the tasks identified in Attachment 3, Grant Work Plan, appended to the executed grant agreement as well as FDEP guidance documents. **Items in blue text** are tasks recommended by DC that are not identified and/or required in the Grant Work Plan. The recommended tasks are based upon our experience successfully preparing grant-compliant VAs.

### Task 1. Kickoff Meeting with FDEP

DC will coordinate an online kickoff meeting with FDEP to accomplish the following:

- Confirm changes, or lack thereof, to the technical specifications in the November 2024 Grant Work Plan. For example, DC will confirm that analyses are based on 2040 and 2070 time horizons as stated rather than 2050 and 2080 as currently indicated in Section 380.093, FS, and FDEP's Vulnerability Assessment Compliance Checklist Certification.
- Confirm FDEP grant manager and relevant contacts.
- Discuss tidal and sea level rise-related scenarios.
- Review the proposed deliverable schedule that reflects staggered submittals of deliverables with the final deliverable by 6/30/26.
- Confirm that the City can seek payment reimbursement upon each deliverable submittal identified in the schedule.

This is a no cost task.





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## **Task 2. Identify VA Data Standards**

DC will identify the data standards, including the sea level rise scenarios and planning horizons, needed to perform the VA based on the requirements as defined in Section 380.093, FS.

#### Deliverable:

Proposed data standards memo. This is a no cost task.

### Task 3. Acquire Background Data

DC will research and compile the required data as defined in Section 380.093, FS. The three main categories of data are:

- A. Critical and regionally significant assets comprised of four asset classes: 1. transportation, 2. critical infrastructure, 3. critical community and emergency facilities, and 4. natural, cultural and historical resources)
- B. Topographic data
- C. Flood scenario-related data

GIS metadata will be assembled for each of the four asset classes as defined in paragraphs 380.093(2)(a)1-4, FS. GIS files and associated metadata will adhere to the Resilient Florida Program's GIS Data Standards (FDEP Exhibit I), and raw data sources will be defined within the associated metadata.

DC will identify data gaps, where missing data or low-quality information may limit the VA's extent or reduce the accuracy of the results. DC will attempt to rectify any gaps of necessary data.

### Deliverables:

- 1) A technical report outlining the data compiled and findings of the gap analysis.
- 2) A summary report with recommendations to address the identified data gaps and actions taken to rectify them, if applicable.
- 3) GIS files with appropriate metadata of the data compiled, including locations of critical assets owned or maintained by the City as well as regionally significant assets that are classified and defined in paragraphs 380.093(2)(a)1-4, FS.
- 4) Background Data Catalog in accordance with FDEP GIS Data Standards (FDEP Exhibit I).
- 5) Raster layers with appropriate metadata that are not publicly available nor already included in the statewide flood vulnerability and sea level rise data set.

## Task 4. Public Outreach Meeting #1

FDEP encourages public engagement during the VA process to inform and engage stakeholders in the project. DC will conduct two online public outreach meetings. The purpose of the first meeting is to allow the public to provide input during the initial data collection stages, including 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.

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### Deliverables:

- 1) A copy of the presentation and all materials created in the preparation of or for distribution at the meeting (i.e., social media posts, public announcements, graphics), including a meeting agenda and sign-in sheets.
- 2) A summary report or meeting minutes that include the meeting purpose, number of attendees, stakeholder recommendations and guidance, and documents decisions and agreed upon outcomes.
- 3) A copy of the file or weblink of the video or audio recording from the meeting, if available.

### **Task 5. Exposure Analysis**

The exposure analysis will encompass the entire city and include critical assets owned or maintained by the City. The exposure analysis will 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 will include the following data:

- 1) Tidal flooding. If applicable, includes future high tide flooding, using thresholds published and provided by FDEP. The analysis will geographically display the number of tidal flood days expected for each scenario and planning horizon (as applicable/practicable).
- 2) Current and future storm surge flooding, if applicable. Use publicly available NOAA or FEMA storm surge data. The initial storm surge event used will equal or exceed the current 100-year flood event. Higher frequency storm events may be analyzed to understand the exposure of all critical assets.
- 3) Rainfall-induced flooding. Use spatiotemporal analysis or existing hydrologic and hydraulic modeling results for a 100-year storm and a 500-year storm. Future boundary conditions will be modified to consider sea level rise and high tide conditions (as applicable/practicable).
- 4) Compound flooding or the combination of tidal, storm surge, and rainfall-induced flooding (as applicable/practicable).

The following scenarios and standards will be used for the exposure analysis:

- 1) All analyses performed in North American Vertical Datum of 1988 (NAVD88).
- 2) GIS deliverables will be projected to FL State Plane East with 2011 adjustments (EPSG: 6438).
- 3) If applicable, at least two local sea level rise scenarios, including the 2022 NOAA intermediate-low and intermediate sea level rise scenarios or the statewide sea level rise projections.
- 4) At least two planning horizons that include planning horizons for the years 2040 and 2070. *This is subject to confirmation by FDEP during the kickoff meeting.*
- 5) Local sea level data maintained by the Florida Flood Hub which reflect the best available scientific information as certified by the Chief Science Officer, in consultation with the Chief Resilience Officer. If such data is not available, local sea level data will be interpolated between the two closest NOAA tide gauges; however, such data will be taken from only one of the two closest

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NOAA tide gauges if the gauge has a higher mean sea level or taken from an alternate tide gauge with appropriate rationale and FDEP approval, as long as it is publicly available.

#### Deliverables:

- 1) A draft VA 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 and associated metadata that adhere to the Resilient Florida Program GIS Data Standards (FDEP Exhibit I). More specifically, raster layers with results of the exposure analysis (depth of flood water) for each flood scenario as well as the appropriate metadata that identifies the methods used to create the flood layers. Additionally, any other custom, combined or modified flood scenario raster layer used in the assessment and not publicly available. Raw data sources will be defined within the associated metadata.

## **Task 6. Sensitivity Analysis**

The sensitivity analysis measures the impact of flooding on assets by applying the data from the exposure analysis to the inventory of critical assets created in the Acquire Background Data task. The sensitivity analysis will include an evaluation of the impact of flood severity on each asset and at each flood scenario and assign a risk level based on percentages of land area inundated and number of critical assets affected.

### Deliverables:

- 1) An updated draft VA report that provides details on the findings of the exposure analysis and the sensitivity analysis, and includes visual presentation of the data via maps and 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 will be prioritized by area or immediate need and identify which flood scenario(s) impacts each asset.
- 3) GIS files and associated metadata that adhere to the Resilient Florida Program GIS Data Standards (FDEP Exhibit I). More specifically, feature class (or shapefile) of asset datasets with the results of the sensitivity analysis for all flood scenarios, including the appropriate metadata that identified the methods used to create the risk layers. The datasets will include an attribute of critical assets, including regionally significant assets, that are currently, or within approximately 50 years reasonably expected to be, impacted by flooding and sea level rise.

# **Task 7. Public Outreach Meeting #2**

DC will conduct a second online public outreach meeting to allow the public to provide community-specific input on the VA results. DC will encourage the public to prioritize focus areas of flooding and the critical assets in preparation for the development of adaptation strategies and project development.

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### Deliverables:

- 1) A copy of the presentation and all materials created in the preparation of or for distribution at the meeting (i.e., social media posts, public announcements, graphics), including a meeting agenda and sign-in sheets.
- 2) A summary report or meeting minutes that include the meeting purpose, number of attendees, stakeholder recommendations and guidance, and documents decisions and agreed upon outcomes.
- 3) A copy of the file or weblink of the video or audio recording from the meeting, if available.

# **Task 8. Final Vulnerability Assessment Report**

DC will prepare a final VA report that includes a summary of identified risks and, if applicable, assigned focus areas.

#### Deliverables:

- 1) Final VA report that includes
  - A. Findings of the data gap analysis.
  - B. Recommendations to address the identified data gaps and actions taken to rectify them, if applicable.
  - C. Details on the modeling process and type of models used during the exposure and sensitivity analyses.
  - D. All results from the exposure and sensitivity analyses, including illustrations via maps and tables.
  - E. Summary of identified risks.
  - F. Assigned focus areas, if applicable.
  - G. An inventory of critical assets including regionally significant assets, that are currently, or within approximately 50 years, are reasonably expected to be, impacted by flooding and sea level rise.
  - H. Prioritized list of critical assets or geographic area(s) with flood scenario(s) impacts of each asset/area.
- 2) All geospatial data used to illustrate flooding and sea level rise impacts identified in the assessment in a format suitable for input to FDEP's mapping tool.
- 3) GIS data that has been incorporated into the appropriate Florida State Plan Coordinate System and suitable for FDEP's mapping tool.
- 4) Metadata consistent with FDEP standards.
- 5) A signed Vulnerability Assessment Compliance Checklist Certification.

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# **Task 9. Local Mitigation Strategy (LMS)**

DC will work with the Local Mitigation Strategy Working Group (LMSWG) to ensure the VA Report aligns with the existing Orange County LMS Plan and will be utilized during the planning process of future county LMS Plan updates.

#### Deliverable:

A letter to FDEP and FDEM Mitigation Bureau Planning Unit, signed by the LMSWG Chair, or designee, indicating the VA Report will be incorporated as a reference and annexed in the next iteration of the LMS Plan, i.e., the next five-year update; and the entity/entities that composed the VA 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 for inclusion on the LMS Prioritized Project List.

## **Task 10. Adaptation Plan**

DC will prepare a flood resilience adaptation plan that is consistent with the *Florida Adaptation Planning Guidebook* (Guidebook), dated June 2018. It is our understanding that the Guidebook is currently under revision. If an updated Guidebook is released by FDEP prior to preparation of this deliverable, it may be used.

### Deliverable:

An adaptation plan comprising:

- 1) Assessment of adaptive capacities
- 2) Prioritization of adaptation needs
- 3) Identification of adaptation strategies
- 4) Alignment of strategies with potential funding opportunities



# **SCHEDULE, FEES, AND INVOICING\***

Task No.	Task Name	Deliverable Date to FDEP	Fee
1	Kickoff Meeting with FDEP (online)*	January 19, 2026	\$0
2	Identify VA Data Standards*	January 30, 2026	\$0
3	Acquire Background Data	February 27, 2026	\$15,000
4	Public Outreach Meeting #1 (online)	March 26, 2026 (actual meeting will be	\$5,000
		early March)	
5	Exposure Analysis	April 17, 2026	\$29,000
6	Sensitivity Analysis	May 22, 2026	\$29,000
7	Public Outreach Meeting #2 (online)	June 11, 2026 (actual meeting will be in	\$5,000
		late May)	
8	Final VA Report	June 11, 2026	\$15,000
9	Local Mitigation Strategy	June 18, 2026	\$2,000
10	Adaptation Plan	June 30, 2026	\$15,000
TOTAL:			\$115,000

<sup>\*</sup>Assumes a notice to proceed date of January 12, 2026. Tasks 1 and 2 are no cost in accordance with FDEP guidance.

DC Fee: \$105,000

Hale Innovation Fee: \$ 10,000 (adaptation plan support)

\$115,000

The above tasks will be invoiced on a **lump sum basis**. Invoices will be submitted to the City monthly for payment based on percentage of completed tasks. The City is responsible for payment to DC within thirty days from date of invoice. The City is responsible for seeking payment reimbursement by FDEP.

### **ASSUMPTIONS**

The above scope, tasks, schedule, and fees are based on the following assumptions:

- 1) Notice to proceed effective January 12, 2026.
- 2) All meetings will be online (deliverable-related; status/coordination with City).
- 3) The City will timely respond to DC requests and perform draft deliverable reviews with urgency.
- 4) The City will prepare and process all grant compliance-related reporting (quarterly reports; payment reimbursement requests; project closeout, etc.).
- 5) DC will respond to FDEP comments/requests for information at no additional cost to the City.
- 6) DC will utilize an existing two-dimensional TUFLOW model for the required analyses. DC will not develop a new hydrologic and hydraulic model.

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We look forward to serving the City and completing this very important project.

Thank you for the opportunity and please reach out with any questions.

Sincerely,

Lee Mullon, PE, CFM, BC.WRE, PMP

Principal-in-Charge

Cathleen (Cathy) Foerster, AICP

Project Manager