2

SUBJECT: A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM

BID #: ESC-0404-23 **OPEN DATE: 2023-07-19**

COMPETITIVE SEALED PROPOSAL EVALUATION COMMITTEE

KIND AND BASIS OF CONTRACT: COMPETITIVE SEALED PROPOSAL SUPPLY CONTRACT – PERIOD OF SERVICE WILL BE TWO (2) YEARS FROM THE DATE OF CONTRACT EXECUTION, WITH TWO (2) ONE (1) YEAR RENEWAL OPTIONS

AGENCY: PLANNING AND DEVELOPMENT DEPARTMENT

BASIS OF AWARD: HIGHEST SCORING RESPONSIVE, RESPONSIBLE BIDDER BASED ON THE EVALUATION CRITERIA

NUMBER OF BIDS INVITED: 21 **NUMBER RECEIVED:** 1 **OTHER:** 0

SUMMARY OF BIDS AND RECOMMENDED ACTIONS:
Recommend approval of award to the sole responsive, responsible bidder, THE WATER INSTITUTE in the amount of $2,750,000.00 for A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM. Period of service will be two (2) years from the date of contract execution, with two (2) one (1) year renewal options.

Funding Source: 32111.153101.565051.010384.00000000.00000.0000000, to be executed by formal contract through the Office of General Counsel and process by purchase order(s).

Attachments: Recommendation Memo, Bid Tabulation Sheet, Scoring Matrix, Description of Services

Analyst: _____ **RESPECTFULLY SUBMITTED:** _____
RUBEN OLA DUSTIN FREEMAN, CHIEF PROCUREMENT DIVISION

CONCURRENCE BY: William Killingsworth, Director of Planning and Development Department

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(ALL AWARD ACTIONS SUBJECT TO LAWFULLY APPROPRIATED FUNDS)
ACTION OF CSPEC COMMITTEE ON RECOMMENDATIONS ABOVE

MEMBERS APPROVING _____ MEMBERS DISAPPROVING _____ DATE: _____

_____ _____ OTHER: _____

_____ _____

_____ _____

_____ _____

_____ _____

ACTION OF AWARDING AUTHORITY DATE _____

APPROVED _____ DISAPPROVED _____

OTHER _____

SIGNATURE OF AUTHENTICATION _____

Requisition PDOD-500142-23

Requisitioning BU	PDOD: Office of the Director	**Requisition Amount**	0.01 USD
Entered By	Robert Blanco	**Justification**	
Status	Approved	**Funds Status**	Reserved
Description	A Citywide Probabilistic Compound Flood Model & Real-Time Forecasting System		
Emergency Requisition	No		

Lines

Line	Item	Description	Category Name	Quantity	UOM	Price	Amount (USD)	Status	Funds Status
1		A Citywide Probabilistic Compound Flood Model & Real-Time Forecasting System	961.95 Modeling Services			USD	0.01	Approved	Reserved

Requester	Robert Blanco	**Supplier**	
Urgent	No	**Supplier Site**	
Requested Delivery Date	6/21/23	**Supplier Contact**	
Deliver-to Location	Ed Ball 3rd Floor Charge	**Contact Phone**	
Deliver-to Address	214 North Hogan Street, 3rd Floor, Jacksonville, FL 32202, Duval, United States	**Charge Account**	32111.153101.565051.010384.00000000.00000.0000000
Note to Buyer			

I CERTIFY THAT FUNDS FOR THIS PURCHASE WERE AUTHORIZED AND PROVIDED FOR IN THE CURRENT BUDGET.

Ola, Ruben

From: Ola, Ruben
Sent: Monday, July 24, 2023 11:11 AM
To: Coglianese, Anne; Blanco, Bob
Cc: Waremburg, Robert
Subject: RE: For Agency Evaluation and Review: ESC-0404-22 A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM

Good Morning,

We need the memo this morning so we can forward for CPSEC agenda this Thursday.
Thanks,

Ruben Ola, Purchasing Analyst
City of Jacksonville
Procurement Division
Finance and Administration Department
214 N. Hogan Street, Suite 800
Jacksonville, FL 32202
Phone: 904.255.8823
Fax: 904.255.8837
Email: rubeno@coj.net

One City. One Jacksonville.

From: Ola, Ruben
Sent: Friday, July 21, 2023 3:17 PM
To: Coglianese, Anne <ACoglianese@coj.net>
Cc: Waremburg, Robert <RWaremburg@coj.net>; Blanco, Bob <RBlanco@coj.net>
Subject: RE: For Agency Evaluation and Review: ESC-0404-22 A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM

Good Afternoon,

This is just to follow up the agency recommendation memo so this can go to CSPEC award next week.

Thanks,

Ruben Ola, Purchasing Analyst
City of Jacksonville
Procurement Division
Finance and Administration Department
214 N. Hogan Street, Suite 800
Jacksonville, FL 32202
Phone: 904.255.8823
Fax: 904.255.8837

Email: rubeno@coj.net

One City. One Jacksonville.

From: Coglianese, Anne <ACoglianese@coj.net>
Sent: Thursday, July 20, 2023 12:00 PM
To: Ola, Ruben <RubenO@coj.net>
Cc: Waremburg, Robert <RWaremburg@coj.net>; Blanco, Bob <RBlanco@coj.net>
Subject: Re: For Agency Evaluation and Review: ESC-0404-22 A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM

Hi Ruben — Bob Blanco should be sending it very soon. The memo/letter is written and signed by me already but Bob is trying to track down Bill Killingsworth for his signature as well.

Anne Coglianese
Chief Resilience Officer
City of Jacksonville
acoglianese@coj.net
Office (904) 255-7939
Cell (904) 625-8162

On Jul 20, 2023, at 11:04 AM, Ola, Ruben <RubenO@coj.net> wrote:

Good Morning Anne,

Attached is the final scoring matrix and bid tabulation sheet. I need the agency memo so I can submit in CSPEC agenda.

Thanks!

Ruben Ola, Purchasing Analyst
City of Jacksonville
Procurement Division
Finance and Administration Department
214 N. Hogan Street, Suite 800
Jacksonville, FL 32202
Phone: 904.255.8823
Fax: 904.255.8837
Email: rubeno@coj.net
<image001.jpg>
One City. One Jacksonville.

From: Coglianese, Anne <ACoglianese@coj.net>
Sent: Wednesday, July 19, 2023 6:25 PM
To: Ola, Ruben <RubenO@coj.net>; Enz, Jill <JEnz@coj.net>; Smith, Robin <RobinSmith@coj.net>

Subject: RE: For Agency Evaluation and Review: ESC-0404-22 A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM

Thanks, Ruben! You should have just received a separate email from me with my scores.

Robin and Jill – If there's anyway you can prioritize reviewing and scoring this RFP tomorrow morning, that would be great. If Ruben can combine our scores before noon then this can get on next week's CSPEC agenda.

Thanks all!

Anne Coglianese
Chief Resilience Officer
City of Jacksonville
acoglianese@coj.net
Office (904) 255-7939
Cell (904) 625-8162

From: Ola, Ruben <RubenO@coj.net>
Sent: Wednesday, July 19, 2023 3:57 PM
To: Coglianese, Anne <ACoglianese@coj.net>; Enz, Jill <JEnz@coj.net>; Smith, Robin <RobinSmith@coj.net>
Subject: For Agency Evaluation and Review: ESC-0404-22 A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM

Good Afternoon,

In reference to the above subject solicitation, attached are the electronic copies of solicitation document, bid tabulation sheet, scoring matrix and contractor's proposal for agency evaluation and review. Three (3) duplicate copies of proposal documents are now available for pick-up in the Procurement Division Office, Room 836.

To better serve all our customers and continue to improve our Procurement Formal award cycle time, we ask the completion of evaluation and return a letter of recommendation to Procurement Division normally within 7 days from the date of this notification. Please note that deadline to submit a recommendation to Procurement Office for CSPEC/General Government Awards Committee is no later than 12:00noon of Thursday prior to the next regularly scheduled Thursday meeting.

If you have question or need additional information, I can be reached at (904) 255-8823 or e-mail at rubeno@coj.net.

Thank you.

Ruben Ola, Purchasing Analyst
City of Jacksonville
Procurement Division
Finance and Administration Department
214 N. Hogan Street, Suite 800
Jacksonville, FL 32202
Phone: 904.255.8823
Fax: 904.255.8837
Email: rubeno@coj.net

<ESC-0404-23 BID TABULATION SHEET AND SCORING MATRIX.xlsx>

BID TABULATION SHEET

			THE WATER INSTITUTE			
TITLE: A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM						
BID NO: ESC-0404-23						
OPEN DATE: JULY 19, 2023						
PURCHASING ANALYST: RUBEN OLA						
NO. INVITED: (21) No. Received: (1) No Bids: (0)						
RECORDED BY: M. PIERCE, BID ANNOUNCER: R. RENATA						
A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM. Development of compound flood model and probabilistic framework, Computing costs, Development of flood forecasting software, Building data repository.			$2,750,000.00			
		LUMP SUMP PRICE:	$2,750,000.00			
ITEM NO.	DESCRIPTION	POINTS				
1	FORM 1 – PRICE SHEET (A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM) (The contractor submitting the lowest cost to the City shall receive the maximum number of points for cost, 20 points. Each subsequentially higher cost shall be divided into the lowest cost received and the products score % will be multiplied by the maximum points available to render the points.) Score = (Lowest Bid/The Bid) X 20)	20	20.00			
2	SUPPLIERS EXPERIENCE Proposals must include a minimum of one prior project where all elements of this RFP have been successfully demonstrated. Reference information must be provided with RFP submission. 1. Developed a fully probabilistic compound flood model for a government entity similar to Jacksonville's geographic size or larger. 2. The project area must have included a hydrologic system with a minimum of 500 linear miles of shoreline. 3. Prior project must have included surge, tidal, pluvial, and fluvial datasets within a single model framework. 4. The firm must have produced a minimum of 10,000 mapped scenario runs. 5. The prior project must have had a catalog/repository component developed by the firm. 6. A real-time forecasting system must have been successfully used in conjunction with the model	60	59.00			
3	PROJECT WORK PLAN/ABILITY TO PERFORM SCOPE 1. Proposals must include a work plan that includes all items requested in the scope of work. 2. Must reference team/staff who will be working on the project and their qualifications. 3. Must indicate that an initial 100 model runs can be completed in the first 6 months of the contract, and produce a minimum of 10,000 model runs for the city before the end of the contract period. 4. Must be able to leverage high performance computing to provide the city with expedient results of model runs	20	19.67			
	Total Points	100	98.67			
		FORM 3 (BUSINESS/PROJECT REFERENCES):	✓			
		CONFLICT OF INTEREST:	✓			
		ADDENDUM (S) ( ):				
		COMMENTS:				

SCORING MATRIX ESC-0404-23

A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM

Total Points	20 Points	60 Points	20 Points	OVERALL	Rank
Criteria	FORM 1 – PRICE SHEET (A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM) (The contractor submitting the lowest cost to the City shall receive the maximum number of points for cost, 20 points. Each subsequentially higher cost shall be divided into the lowest cost received and the products score % will be multiplied by the maximum points available to render the points.) Score = (Lowest Bid/The Bid) X 20)	SUPPLIERS EXPERIENCE Proposals must include a minimum of one prior project where all elements of this RFP have been successfully demonstrated. Reference information must be provided with RFP submission. 1. Developed a fully probabilistic compound flood model for a government entity similar to Jacksonville's geographic size or larger. 2. The project area must have included a hydrologic system with a minimum of 500 linear miles of shoreline. 3. Prior project must have included surge, tidal, pluvial, and fluvial datasets within a single model framework. 4. The firm must have produced a minimum of 10,000 mapped scenario runs. 5. The prior project must have had a catalog/repository component developed by the firm. 6. A real-time forecasting system must have been successfully used in conjunction with the model	PROJECT WORK PLAN/ABILITY TO PERFORM SCOPE 1. Proposals must include a work plan that includes all items requested in the scope of work. 2. Must reference team/staff who will be working on the project and their qualifications. 3. Must indicate that an initial 100 model runs can be completed in the first 6 months of the contract, and produce a minimum of 10,000 model runs for the city before the end of the contract period. 4. Must be able to leverage high performance computing to provide the city with expedient results of model runs	Total Points (100)	
THE WATER INSTITUTE					1.00
Reviewer 1: ANNE COGLIANESE	20.00	60.00	20.00	100.00	
Reviewer 2: JILL ENZ	20.00	57.00	19.00	96.00	
Reviewer 3: ROBIN SMITH	20.00	60.00	20.00	100.00	
Average	20.00	59.00	19.67	98.67	
Reviewer 1: NAME					
Reviewer 2: NAME					
Reviewer 3: NAME					
Average					

REQUEST FOR PROPOSAL

A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM
For
City of Jacksonville, Florida

SECTION 1
(Specific Information Regarding this RFP)

1.1 Introduction

The City of Jacksonville ("**Buyer**") intends to hire one or more firms (**Bidders**) to provide the services described in Section 1.2 of this Request for Proposal ("**RFP**"). Persons interested in submitting a response to this RFP (a "**Response**") should carefully review this RFP for instructions on how to respond and for the applicable contractual terms. This RFP is divided into the following sections:

Section 1	Specific Information Regarding This RFP
Section 2	General Instructions
Section 3	General Terms and Conditions of Agreement
Section 4	Description of Services and Deliverables
Section 5	Program Requirements
Section 6	General Terms and Conditions
Section 7	Instructions for responding to the RFP
Attachment A	Response Format
Attachment B	Evaluation Criteria
Attachment C	Equal Business Opportunity Program (Encouragement Plan)
Attachment D	Service Contract
Attachment E	Disqualified/Probationary Suppliers List
Attachment F	Indemnification
Attachment G	Insurance Requirements
Attachment H	Protest Procedures
Attachment I	Federal Funding Provisions
	Fed Form 1-Certification Regarding Debarment, Suspension, and Other Responsibility Matters Primary Covered Transactions
	Fed Form 2-Certification Regarding Lobbying
Form 1	Price Sheet
Form 2	Conflict of Interest Certificate
Form 3	Project References
Form 4	No Bid Form

In the event of conflicting provisions, the following sections of this RFP will have priority in the order listed: Section 1, Section 4, Section 2, Section 3, the Attachments, and the Forms.

1.2 Scope of Services.

The services sought under this RFP are generally described as follows: A Citywide Probabilistic Compound Flood Model & Real-Time Forecasting System, in conjunction with the City of Jacksonville (COJ) is currently accepting bids to obtain information about your firm and its ability to provide these services and to obtain pricing commitments as listed in the RFP, see Section 4.

1.3 Term of Agreement.

The term of the agreement will be two (2) years from the date of contract execution, with two (2) one (1) year renewal options.

1.4 Minimum Vendor Requirements

Contractors must satisfy the following minimum requirements in order to have their Responses evaluated. By submitting a Response, Contractor warrants and represents that it satisfies these requirements. Failure

to meet these requirements will result in the Response not being evaluated and being rejected as non-responsive:

a) The Contractor shall provide all business licenses required by local, state, and federal law as applicable.
b) Has developed a fully probabilistic compound flood model for a government entity similar to Jacksonville's geographic size or larger. The project area must have included a hydrologic system with a minimum of 500 linear miles of shoreline.
c) The contractor must have produced a minimum of 10,000 mapped scenario runs and prior project must have had a catalog/repository component developed by the firm.
d) Contractor had a real-time forecasting system that has been successfully used in conjunction with the model.
e) Contractor shall provide a list (Form 3–Project References) for a minimum of one (1) successful Citywide Probabilistic Compound Flood Model & Real-Time Forecasting System. Include the name of the agency, agency's contact name, phone number, and e-mail address, quantity, and scope of the project.

1.5 Equal Business Opportunity Program.

It is an official policy of the City of Jacksonville to encourage the maximum participation of Jacksonville Small and Emerging Businesses (JSEBs) in its contract awards based upon availability. To participate as a JSEB on Buyer projects, a company must be certified as a JSEB with the City's Equal Business Opportunity Office.

This RFP and the resulting Contract are subject to requirements of the Equal Business Opportunity Program Encouragement Plan, which is fully described on Attachment C to this RFP.

Contractors may contact Buyer's Equal Business Opportunity Office at 904-255-8840 or find the JSEB directory on Buyer's website. Please contact the Contact Person identified in Section 1.12 if you are uncertain of Buyer's website address or if you experience problems accessing it.

1.6 Documents Available for Inspection.

N/A

1.7 Federal Funds.

Federal funds will not be used as part of this solicitation.

1.8 Pre-Proposal Meeting.

N/A

1.9 Response Due Date.

The deadline for submitting responses to this RFP is **July 19, 2023, 2:00pm**. Please see Sections 2.3 and 2.4 for more details.

1.10 Response Delivery Location.

Responses must be delivered to the following location:

City of Jacksonville
Procurement Division
Attention: Bid Room
214 N. Hogan Street, Room 105
Jacksonville, Florida 32202

1.11 Response Opening.

Responses received shall be publicly announced and recorded at 2:00 PM on the Response Due Date in meeting room #110, 1st Floor, Ed Ball Bldg, 214 N. Hogan Street.

1.12 Contact Person.

If any questions arise during the request for proposal period of this Project, contact Ruben Ola, Purchasing Analyst Procurement Division, at RubenO@coj.net.

All copies are to be placed in a sealed package. The outside must be marked with (i) the RFP title and number, and (ii) Contractor's name, address, contact person, and telephone number.

It is the sole responsibility of each Contractor to assure all copies are EXACT duplicates of the original Response. Photocopies or CD copies will be used for the purpose of evaluating the Responses. Any information contained in the original Response which has not been transferred to the CDs or photocopies will NOT be considered. The original document will be used solely for official record keeping and auditing purposes.

2.5 Evaluation of Responses.

A. Buyer will determine the qualifications, interest and availability of Contractors by reviewing all Responses and, when deemed necessary in the sole discretion of Buyer, by conducting formal interviews of selected Contractors.

B. Before making an award, Buyer reserves the right to seek clarifications, revisions, and information it deems necessary for the proper evaluation of Responses. Failure to provide any requested clarifications, revisions or information may result in rejection of the Response.

C. Buyer reserves the right to accept or reject any and all Responses, or separable portions thereof, and to waive any minor irregularity, technicality, or omission if Buyer determines that doing so will serve Buyer's best interests. Buyer may reject any Response not submitted in the manner specified by the RFP.

2.6 Award of Contract.

A. The process for contract award is set forth in Jacksonville Ordinance Code Sections 126.204. Generally, Buyer will award the Contract to the responsible and responsive proposer whose Response is determined in writing to be the most advantageous to the City of Jacksonville, based solely on the relative importance assigned to price and of the criteria set forth in Attachment B. The award may be contingent on the outcome of direct negotiations under Section 126.201(d)(4) and 126.201(n), *Ordinance Code.* If an agreement cannot be reached with the highest ranked Contractor, Buyer reserves the right to make an award to the next highest ranked Contractor or subsequent Contractor(s) until an agreement is reached.

B. Buyer may make an award within sixty (60) days after the date of the Responses are due, during which period the Responses shall remain firm and shall not be withdrawn. Any Response that expresses a shorter duration may, in Buyer's sole discretion, be accepted or rejected. If award is not made within sixty (60) days, the Response shall remain firm until either the Contract is awarded or Buyer receives from Contractor written notice that the Response is withdrawn. [Note: Withdrawal of a Response may be requested within 72 hours (excluding State holidays, Saturdays and Sundays) after the date and time Responses are due. Buyer will not accept an amended Response after the date and time Responses are due.]

C. Except as may otherwise be expressly set forth in the RFP, Buyer intends to award one contract, but reserves the right to enter into a contract with multiple Contractors or to reject all Responses.

D. Based on the evaluation results, Buyer shall electronically post a notice of intended award at Buyer's website. Please contact the Contact Person if you are uncertain of Buyer's website address or if you experience problems accessing it. Any person who is adversely affected by the decision shall file with Buyer a notice of protest in accordance with the Protest provisions of the RFP. Buyer does not intend to provide tabulations or notices of award by telephone.

2.7 Terms of Agreement. After award to the successful Contractor, Buyer and Contractor will promptly enter into a written agreement (the "Contract") incorporating the terms of the RFP, the successful Response, and other terms and conditions as may be agreed to between the parties. To the extent the Response contains exceptions to or modifications of the RFP, such exceptions or modifications are stricken unless Buyer affirmatively accepts the exceptions or modifications in the Contract. The Contract will be substantially in

the form set forth in an attachment to the RFP. Buyer will not be obligated to pay Contractor for the RFP services until the Contract is signed by both parties. Buyer retains the right to reject all bids and/or amend its notice of award at any time prior to the full execution of the Contract.

If the successful Contractor fails to perform the Services as agreed, Buyer reserves the right to (i) issue a new solicitation for the Services; (ii) reopen the RFP for the purpose of awarding a second contract to another Contractor in accordance with the criteria and processes set forth herein; and/or (iii) take such other actions permitted by law.

2.8 **Public Meetings and Special Accommodations.** Any meetings of the RFP evaluation committee (i.e., the Competitive Sealed Proposal Evaluation Committee), shall be noticed on Buyer's website and shall comply with Florida's Open Meetings Laws. Please contact the Contact Person if you are uncertain of Buyer's website address or if you experience problems accessing it. Persons requiring a special accommodation because of a disability should contact the Contact Person identified in Section 1 at least forty-eight (48) hours prior to the meeting.

2.9 **Ex-Parte Communications**. Communications regarding the RFP by a potential vendor, service provider, bidder, lobbyist or consultant to city employees, staff, or hired consultants are prohibited. This prohibition includes communications with the Buyer's Office of General Counsel unless the Contact Person has authorized those communications in advance. Violations may result in the rejection/disqualification of a Response.

These prohibitions on ex-parte communications do not apply to the following:

- communications regarding the RFP to the Chief of the Procurement Division or the Contact Person, provided the communication is limited strictly to matters of process or procedure already contained in the RFP.
- communications with the city employee responsible for administering the Jacksonville Small Emerging Business Program, provided the communication is limited strictly to matters of programmatic process or procedures.
- communications at any pre-proposal conferences.
- communications with the Office of Inspector General and his/her staff regarding any perceived inefficiency, misconduct or abuse by City employees.
- presentations before publicly noticed committee meetings.
- contract negotiations during any duly noticed public meeting.
- any duly noticed site visits to determine competency of contractors during the period between RFP opening and issuance of the Chief of Procurement Division's written recommendation.
- communications that are necessary for, and solely related to, the ordinary course of business concerning Buyer's existing contract(s) for the materials or services addressed in the RFP.

The period for these prohibitions commences upon the advertisement of the RFP and terminates after the Chief of the Procurement Division issues a written recommendation to the corresponding awarding committee. If the awarding committee refers the Chief's recommendation back for further review, the prohibitions shall be reinstated until such time as the Chief issues a subsequent recommendation.

2.10 **Cost of Developing RFP Response.** All costs related to the preparation of Responses and any related activities are the sole responsibility of Contractor. Buyer assumes no liability for any costs incurred by Contractors throughout the entire selection process.

2.11 **Response Ownership.** All Responses, including attachments, supplementary materials, addenda, etc., shall become property of Buyer and shall not be returned to Contractor. Buyer will have the right to use any and all ideas or adaptation of ideas presented in any Response. Acceptance or rejection of a Response shall not affect this right.

Section 4
Description of Services and Deliverables

I. BACKGROUND AND CONTEXT:

The City of Jacksonville is seeking contractor for the services to develop and implement a city-wide probabilistic compound flood model and real-time forecasting system. The location of the city along the Atlantic Ocean, Saint John's River and tributaries, and Intracoastal Waterway, makes Jacksonville uniquely vulnerable to the impacts of storm events, as evidenced during Hurricane Matthew in 2016 and Hurricane Irma in 2017. The city is also facing increased flood risks from extreme high tide events, exacerbated by sea-level rise, and extreme precipitation events, which can lead to localized stormwater flooding and tributary flooding. Jacksonville's flood challenges become even more difficult when one or more of these flooding types happen simultaneously and when water movements are influenced by wind direction. Climate change is causing these hydrologic issues to occur more frequently and with more interaction between flood types. In order for the City of Jacksonville to adequately prepare for current and future flood challenges, the city needs a model that includes all flooding factors present in the city and produces outcomes that match the complexity of the city's hydrologic system.

II. SCOPE OF SERVICES:

The City of Jacksonville is seeking a qualified firm to lead the development and implementation of a fully probabilistic compound flood model and associated flood forecasting system. Requirements of this contract includes:

1. Developing probabilistic compound flood model, tailored to Jacksonville's geographic and hydrologic system(s). The model must include coastal, tidal, pluvial, and fluvial flood conditions, as well as wind factors, integrated into a single model.
2. Developing a numerical model/probabilistic framework to determine which storm scenarios should be run through the model.
3. Producing an initial 100 model runs in the first 6 months of the contract, and producing a minimum of 10,000 model runs for the city before the end of the contract period.
4. Leverage high performance computing to provide the city with expedient results of model runs.
5. Building a model repository, ideally cloud-based.
    a. Neither the model nor the repository will be proprietary to the firm selected for this contract and both must be available for the city and its contractors to use independently for project design and implementation on completion of this contract
6. Providing a real-time forecasting system that connects NOAA meteorological data to the compound flood model developed under this contract to provide accurate flood information in advance of storm events.
    a. This forecasting system should be ready for testing during the 2024 hurricane season.
7. Training relevant city-staff on use of model repository and real-time forecasting system

III. PROJECT WORK PLAN/OTHER REQUIREMENTS:

1. Proposals must include a work plan that includes all items requested in the scope of work.
2. Must reference team/staff who will be working on the project and their qualifications.
3. Must be able to leverage high performance computing to provide the city with expedient results of model runs

Attachment B

Evaluation Criteria

Evaluation shall determine qualifications, interest, and availability by reviewing all written responses received that express an interest in performing these services, and when deemed necessary, by conducting formal interviews of selected respondents that are determined to be best qualified based upon the evaluation of written responses. The determinations shall be based upon the following criteria, and respondents are requested to provide, as a minimum, the information listed under each criterion. Failure to provide adequate information on any criterion will result in lower scores and could result in rejection of the proposal as non-responsive. The response to each of the criterion will be evaluated relative to the other responses received and awarded a score of 1 through 10 points. Respondents are encouraged to arrange their responses in a format that will offer ready review and evaluation of each criterion. Please note that **100 points** is the maximum total.

Evaluation Criteria	Max. Points
FORM 1 - PRICE SHEET (A CITYWIDE PROBABILISTIC COMPOUND FLOOD MODEL & REAL-TIME FORECASTING SYSTEM) (The contractor submitting the lowest cost to the City shall receive the maximum number of points for cost, 20 points. Each subsequentially higher cost shall be divided into the lowest cost received and the products score % will be multiplied by the maximum points available to render the points.) Score = (Lowest Bid/The Bid) X 20)	20
SUPPLIERS EXPERIENCE Proposals must include a minimum of one prior project where all elements of this RFP have been successfully demonstrated. Reference information must be provided with RFP submission. 1. Developed a fully probabilistic compound flood model for a government entity similar to Jacksonville's geographic size or larger. 2. The project area must have included a hydrologic system with a minimum of 500 linear miles of shoreline. 3. Prior project must have included surge, tidal, pluvial, and fluvial datasets within a single model framework. 4. The firm must have produced a minimum of 10,000 mapped scenario runs. 5. The prior project must have had a catalog/repository component developed by the firm. 6. A real-time forecasting system must have been successfully used in conjunction with the model	60
PROJECT WORK PLAN/ABILITY TO PERFORM SCOPE 1. Proposals must include a work plan that includes all items requested in the scope of work. 2. Must reference team/staff who will be working on the project and their qualifications. 3. Must indicate that an initial 100 model runs can be completed in the first 6 months of the contract, and produce a minimum of 10,000 model runs for the city before the end of the contract period. 4. Must be able to leverage high performance computing to provide the city with expedient results of model runs	20
TOTAL POINTS	100