# MONTEREY COUNTY WATER RESOURCES AGENCY AGREEMENT FOR PROFESSIONAL SERVICES WITH SURVEYORS, ARCHITECTS, ENGINEERS AND/OR DESIGN PROFESSIONALS

This is an agreement ("Agreement") between the Monterey County Water Resources

	Agenc	y, hereinafter called "Agency," and,
	a	hereinafter called "CONTRACTOR".
1.	Scope hereb this A	asideration of the mutual covenants and conditions set forth in this Agreement, rties agree as follows: <u>e of Work.</u> Agency hereby engages CONTRACTOR and CONTRACTOR y agrees to perform the services set forth in Exhibit A, in conformity with the terms of agreement. CONTRACTOR will complete all work in accordance with the <b>Scope ork/Work Schedule set forth in Exhibit A</b> :
	a)	The scope of work is briefly described and outlined as follows:
	b)	The CONTRACTOR shall perform its services under this agreement in accordance with usual and customary care and with generally accepted practices in effect at the time the services are rendered. The CONTRACTOR and its agents and employees performing work hereunder are specially trained, experienced, competent, and appropriately licensed to perform the work and deliver the services required by this Agreement.
	c)	CONTRACTOR, its agents and employees shall perform all work in a safe and skillful manner and in compliance with all applicable laws and regulations. All work performed under this Agreement that is required by law to be performed or supervised by licensed personnel shall be performed in accordance with such licensing requirements.
	d)	CONTRACTOR shall furnish, at its own expense, all materials and equipment necessary to carry out the terms of this Agreement, except as otherwise provided herein. CONTRACTOR shall not use Agency premises, property (including equipment, instruments, or supplies) or personnel for any purpose other than in the performance of its obligations hereunder.
2.	CON'	of Agreement. The term of this Agreement shall begin onby TRACTOR and Agency, and will terminate on, searlier terminated as provided herein.

3.	Payments to CONTRACTOR; maximum liability. Subject to the limitations set forth herein,
	Agency shall pay to CONTRACTOR in accordance with the fee schedule set forth in
	Exhibit B. The maximum amount payable to CONTRACTOR under this contract is
	(\$).

## 4. Monthly Invoices by CONTRACTOR; Payment.

- a) CONTRACTOR shall submit to Agency an invoice, in a format approved by Agency, setting forth the amounts claimed by CONTRACTOR, together with an itemized basis for such amounts, and setting forth such other pertinent information Agency may require. CONTRACTOR shall submit such invoice monthly or as agreed by Agency, but in no event shall such invoice be submitted later than 30 days after completion of CONTRACTOR's work hereunder. Agency shall certify the claim if it complies with this contract and shall promptly submit such claim to the Monterey County Auditor-Controller, who shall pay the certified amount within 30 days after receiving the invoice certified by Agency. It is understood and agreed that CONTRACTOR shall complete all work described in Exhibit A for an amount not exceeding that set forth above, notwithstanding CONTRACTOR's submission of periodic invoices.
- b) CONTRACTOR shall submit to Agency an invoice via email to <a href="https://www.wei.gov">wRAAccountsPayable@countyofmonterey.gov</a> and to the Contract Administrator listed in Section 27.
- c) CONTRACTOR agrees that Agency may withhold five percent (5%) of the amount requested by CONTRACTOR from any progress payment, until such time as all goods and services are received in a manner and form acceptable to Agency.
- d) If, as of the date of execution of this Agreement, CONTRACTOR has already received payment from Agency for work which is the subject of this Agreement, such amounts shall be deemed to have been paid under this Agreement and shall be counted toward Agency's maximum liability set forth above.
- e) CONTRACTOR shall not be reimbursed for travel expenses unless expressly approved in writing in accordance with this Agreement.

## 5. <u>Indemnification</u>.

5.1 For purposes of the following indemnification provisions ("Indemnification Agreement"), "design professional" has the same meaning as set forth in California Civil Code section 2782.8. If any term, provision or application of this Indemnification Agreement is found to be invalid, in violation of public policy or unenforceable to any

extent, such finding shall not invalidate any other term or provision of this Indemnification Agreement and such other terms and provisions shall continue in full force and effect. If there is any conflict between the terms, provisions or application of this Indemnification Agreement and the provisions of California Civil Code sections 2782 or 2782.8, the broadest indemnity protection for the COUNTY under this Indemnity Agreement that is permitted by law shall be provided by CONTRACTOR.

Indemnification for Design Professional Services Claims: CONTRACTOR shall indemnify, defend and hold harmless COUNTY, its governing board, directors, officers, employees, and agents against any claims that arise out of, or pertain to, or relate to the negligence, recklessness, or willful misconduct of the CONTRACTOR, its employees, subcontractors, and agents in the performance of design professional services under this Agreement, excepting only liability arising from the sole negligence, active negligence or willful misconduct of COUNTY, or defect in a design furnished by COUNTY, but in no event shall the amount of such CONTRACTOR's liability exceed such CONTRACTOR's proportionate percentage of fault as determined by a court, arbitrator or mediator, or as set out in a settlement agreement. In the event one or more defendants to any action involving such claim or claims against COUNTY is unable to pay its share of defense costs due to bankruptcy or dissolution of the business, such CONTRACTOR shall meet and confer with the other parties to such action regarding unpaid defense costs.

## 5.3 Indemnification for All Other Claims or Loss:

For any claim, loss, injury, damage, expense or liability other than claims arising out of the CONTRACTOR's performance of design professional services under this Agreement, CONTRACTOR shall indemnify, defend and hold harmless COUNTY, its governing board, directors, officers, employees, and agents against any claim for loss, injury, damage, expense or liability resulting from or alleging injury to or death of any person or loss of use of or damage to property, arising from or related to the performance of services under this Agreement by CONTRACTOR, its employees, subcontractors or agents, excepting only liability arising from the sole negligence, active negligence or willful misconduct of the COUNTY, or defect in a design furnished by the COUNTY.

#### 6. Insurance.

### 6.1 Evidence of Coverage:

Prior to commencement of this Agreement, the CONTRACTOR shall provide a "Certificate of Insurance" certifying that coverage as required herein has been obtained. Individual endorsements executed by the insurance carrier shall accompany the certificate. In addition the CONTRACTOR upon request shall provide a certified copy of the policy or policies.

This verification of coverage shall be sent to the Agency's Contact, unless otherwise directed. The CONTRACTOR shall not receive a "Notice to Proceed" with the

work under this Agreement until it has obtained all insurance required and such, insurance has been approved by the Agency. This approval of insurance shall neither relieve nor decrease the liability of the CONTRACTOR.

# 6.2 Qualifying Insurers:

All coverage's, except surety, shall be issued by companies which hold a current policy holder's alphabetic and financial size category rating of not less than A-VII, according to the current Best's Key Rating Guide or a company of equal financial stability that is approved by the County's Purchasing Manager.

# 6.3 <u>Insurance Coverage Requirements:</u>

Without limiting CONTRACTOR's duty to indemnify, CONTRACTOR shall maintain in effect throughout the term of this Agreement a policy or policies of insurance with the following minimum limits of liability:

Commercial general liability insurance, including but not limited to premises and operations, including coverage for Bodily Injury and Property Damage, Personal Injury, Contractual Liability, Broad form Property Damage, Independent CONTRACTORs, Products and Completed Operations, with a combined single limit for Bodily Injury and Property Damage of not less than \$1,000,000 per occurrence.

■ Exemption/Modification (Justification attached; subject to approval).

<u>Business automobile liability insurance</u>, covering all motor vehicles, including owned, leased, non-owned, and hired vehicles, used in providing services under this Agreement, with a combined single limit for Bodily Injury and Property Damage of not less than \$1,000,000 per occurrence.

☐ Exemption/Modification (Justification attached; subject to approval).

<u>Workers' Compensation Insurance</u>, if CONTRACTOR employs others in the performance of this Agreement, in accordance with California Labor Code section 3700 and with Employer's Liability limits not less than \$1,000,000 each person, \$1,000,000 each accident and \$1,000,000 each disease.

☐ Exemption/Modification (Justification attached; subject to approval).

Professional liability insurance, if required for the professional services being provided, (e.g., those persons authorized by a license to engage in a business or profession regulated by the California Business and Professions Code), in the amount of not less than \$1,000,000 per claim and \$2,000,000 in the aggregate, to cover liability for malpractice or errors or omissions made in the course of rendering professional services. If professional liability insurance is written on a "claims-made" basis rather than an occurrence basis, the CONTRACTOR shall, upon the expiration or earlier termination of this Agreement, obtain extended reporting coverage ("tail coverage") with the same liability limits. Any such tail coverage shall continue for at least three years following the expiration or earlier termination

of this Agreement.

Exemption/Modification (Justification attached; subject to approval).

# 6.4 Other Insurance Requirements.

All insurance required by this Agreement shall be with a company acceptable to the Agency and issued and executed by an admitted insurer authorized to transact Insurance business in the State of California. Unless otherwise specified by this Agreement, all such insurance shall be written on an occurrence basis, or, if the policy is not written on an occurrence basis, such policy with the coverage required herein shall continue in effect for a period of three years following the date CONTRACTOR completes its performance of services under this Agreement.

Each liability policy shall provide that the Agency shall be given notice in writing at least thirty days in advance of any endorsed reduction in coverage or limit, cancellation, or intended non-renewal thereof. Each policy shall provide coverage for CONTRACTOR and additional insureds with respect to claims arising from each subcontractors, if any, performing work under this Agreement, or be accompanied by a certificate of insurance from each subcontractors showing each subcontractors has identical insurance coverage to the above requirements.

Commercial general liability and automobile liability policies shall provide an endorsement naming the Monterey County Water Resources Agency and the County of Monterey, their officers, agents, and employees as Additional Insureds with respect to liability arising out of the CONTRACTOR'S work, including ongoing and completed operations, and shall further provide that such insurance is primary insurance to any insurance or self-insurance maintained by the County and that the insurance of the Additional Insureds shall not be called upon to contribute to a loss covered by the CONTRACTOR'S insurance. The required endorsement form for Commercial General Liability Additional Insured is ISO Form CG 20 10 11-85 or CG 20 10 10 01 in tandem with CG 20 37 10 01 (2000). The required endorsement form for Automobile Additional Insured endorsement is ISO Form CA 20 48 02 99.

Prior to the execution of this Agreement by the Agency, CONTRACTOR shall file certificates of insurance with the Agency's contract administrator, showing that the CONTRACTOR has in effect the insurance required by this Agreement. The CONTRACTOR shall file a new or amended certificate of insurance within five calendar days after any change is made in any insurance policy, which would alter the information on the certificate then on file. Acceptance or approval of insurance shall in no way modify or change the indemnification clause in this Agreement, which shall continue in full force and effect.

CONTRACTOR shall at all times during the term of this Agreement maintain in force the insurance coverage required under this Agreement and shall send, without demand by Agency, annual certificates to Agency's Contract Administrator. If

the certificate is not received by the expiration date, Agency shall notify CONTRACTOR and CONTRACTOR shall have five calendar days to send in the certificate, evidencing no lapse in coverage during the interim. Failure by CONTRACTOR to maintain such insurance is a default of this Agreement, which entitles Agency, at its sole discretion, to terminate this Agreement immediately.

- 7. <u>Maintenance of Records.</u> CONTRACTOR shall prepare, maintain and preserve all reports and records that may be required by federal, State, and local rules and regulations relating to services performed under this Agreement. CONTRACTOR shall retain all such records for at least five years from the date of final payment, or until any litigation relating to this Agreement is concluded, whichever is later.
- 8. Right to Audit at Any Time. Agency officials shall have the right, at any time during regular working hours and on reasonable advance notice, to examine, monitor and audit all work performed and all records, documents, conditions, activities and procedures of CONTRACTOR or its subcontractors relating to this Agreement. Government Code section 8546.7 provides that an audit by the State Auditor General may be performed up to three years after the final payment under any contract involving the expenditure of public funds in excess of \$10,000.
- 9. <u>Confidentiality</u>; <u>Return of Records</u>. CONTRACTOR and its officers, employees, agents, and subcontractors shall comply with all federal, State and local laws providing for the confidentiality of records and other information. To the extent permitted by applicable law and regulations, CONTRACTOR shall maintain confidentiality with respect to Agency 's well database and other water use data.
  - CONTRACTOR shall not disclose any confidential information received from Agency or prepared in connection with the performance of this Agreement without the express permission of Agency. CONTRACTOR shall promptly transmit to Agency all requests for disclosure of any such confidential information. CONTRACTOR shall not use any confidential information gained through the performance of this Agreement except for the purpose of carrying out CONTRACTOR's obligations hereunder. When this Agreement expires or terminates, CONTRACTOR shall return to Agency all records, which CONTRACTOR utilized or received, from Agency to perform services under this Agreement.
- 10. Termination. Either party may terminate this Agreement by giving written notice of termination to the other party at least thirty (30) days prior to the effective date of termination, which date shall be specified in any such notice. In the event of such termination, the amount payable hereunder shall be reduced in proportion to the services provided prior to the effective date of termination. Agency may terminate this Agreement at any time for good cause effective immediately upon written notice to CONTRACTOR. "Good cause" includes, without limitation, the failure of CONTRACTOR to perform the required services at the time and in the manner provided herein. If Agency terminates this Agreement for good cause, Agency may be relieved of

the payment of any consideration to CONTRACTOR, and Agency may proceed with the work in any manner, which it deems proper. Costs incurred by Agency thereby shall be deducted from any sum due CONTRACTOR.

- 11. <u>Amendments and Modifications.</u> No modification or amendment of this agreement shall be valid unless it is set forth in writing and executed by the parties.
- 12. Non-Discrimination. Throughout the performance of this Agreement, CONTRACTOR will not unlawfully discriminate against any person because of race, color, religion, gender, national origin, ancestry, physical disability, medical condition, marital status, age older than 40, or sexual orientation, gender identity or any other status protected under federal, state or local law, either in CONTRACTOR's employment practices or in the furnishing of services to recipients. CONTRACTOR shall ensure that the evaluation and treatment of its employees and applicants for employment and all persons receiving and requesting services are free of such discrimination. CONTRACTOR shall comply fully with all federal, State and local laws and regulations which prohibit discrimination. The provision of services primarily or exclusively to any target population designated herein shall not be deemed prohibited discrimination.
- 13. <u>Independent Contractor.</u> In its performance under this Agreement, CONTRACTOR is at all times acting and performing as an independent CONTRACTOR and not an employee of Agency. No offer or obligation of employment with Agency is intended in any manner, and CONTRACTOR shall not become entitled by virtue of this Agreement to receive from Agency any form of benefits accorded to employees including without limitation leave time, health insurance, workers compensation coverage, disability benefits, and retirement contributions. CONTRACTOR shall be solely liable for and obligated to pay directly all applicable taxes, including without limitation federal and State income taxes and social security arising out of CONTRACTOR's performance of this Agreement. In connection therewith, CONTRACTOR shall defend, indemnify, and hold harmless Agency from any and all liability, which Agency may incur because of CONTRACTOR's failure to make such payments.
- 14. <u>Delegation of Duties; Subcontracting.</u> CONTRACTOR is engaged by Agency for its unique qualifications and abilities. CONTRACTOR may not, therefore, delegate any of its basic duties under this Agreement, except to the extent that delegation to CONTRACTOR's employees is contemplated herein. No work shall be subcontracted without the written consent of Agency, except as provided in this Agreement or its attachments. Notwithstanding any subcontract, CONTRACTOR shall continue to be liable to Agency for the performance of all work hereunder. CONTRACTOR shall not assign, sell, mortgage or otherwise transfer its interest or obligations in this Agreement without Agency 's prior written consent.
- 15. <u>Agency's Rights in Work Product.</u> All original materials prepared by CONTRACTOR in connection with its work hereunder -- including but not limited to computer codes, customized computer routines developed using proprietary or commercial software packages, reports, documents, maps, graphs, charts, photographs and photographic

- negatives -- shall be the property of Agency and shall be delivered to Agency prior to final payment. CONTRACTOR may utilize any existing materials developed by CONTRACTOR prior to commencement of work under this Agreement, which materials shall remain the property of CONTRACTOR.
- 16. Independent Contractor Compliance with Government Code Section 1097.6(c). This section applies to those situations when a contractor/consultant is awarded a contract for a preliminary phase of a project, with future phases to bid separately. This section does not apply to those situations when a contract is awarded for multiple phases of a project under a single contract/proposal. When applicable, and as described below, CONTRACTOR's duties and services under this Agreement shall not include preparing or assisting the Agency with any portion of the Agency's preparation of a request for proposals, request for qualifications, or any other solicitation regarding a subsequent or additional contract with the Agency. The Agency shall at all times retain responsibility for public contracting, including with respect to any subsequent phase stemming from this Agreement. CONTRACTOR's participation in the planning, discussions, or drawing of project plans or specifications shall be limited to conceptual, preliminary, or initial plans or specifications. CONTRACTOR shall cooperate with the Agency to ensure that all bidders for a subsequent contract on any subsequent phase of this project, if applicable, have access to the same information, including all conceptual, preliminary, or initial plans or specifications prepared by CONTRACTOR pursuant to this Agreement.
- 17. Compliance with Terms of Federal or State Grant. If any part of this Agreement has been or will be funded pursuant to a grant from the federal or State government in which Agency is the grantee, CONTRACTOR shall comply with all provisions of such grant applicable to CONTRACTOR's work hereunder, and said provisions shall be deemed a part of this Agreement as though fully set forth herein.
- 18. <u>Conflict of Interest.</u> CONTRACTOR warrants that it presently has no interest and shall not acquire any interest during the term of this Agreement, which would directly or indirectly conflict in any manner or to any degree with its full and complete performance of all services under this Agreement.
- 19. Governing Laws. This Agreement is entered into in the County of Monterey, State of California, and shall be construed and enforced in accordance with the laws of the State of California. The parties hereby agree that the County of Monterey shall be the proper venue for any dispute arising hereunder.
- 20. <u>Compliance with Applicable Law.</u> The parties shall comply with all applicable federal, state, and local laws and regulations in performing this Agreement.
- 21. Construction of Agreement. The parties agree that each party has fully participated in the review and revision of this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in the interpretation of this Agreement or any exhibit or amendment. To that end, it is understood and agreed that this Agreement has been arrived at through negotiation, and that neither party is to be deemed the party which prepared this Agreement within the meaning of Civil Code section 1654. Section and paragraph headings appearing herein are for convenience only and shall not be used to interpret the terms of this Agreement.

- 22. <u>Waiver</u>. Any waiver of any term or condition hereof must be in writing. No such waiver shall be construed as a waiver of any other term or condition herein.
- 23. <u>Successors and Assigns.</u> This Agreement and all rights, privileges, duties and obligations hereunder, to the extent assignable or delegable, shall be binding upon and inure to the benefit of the parties and their respective successors, permitted assigns and heirs.
- 24. <u>Contractor</u>. The term "CONTRACTOR" as used in this Agreement includes CONTRACTOR's officers, agents, and employees acting on Contactor's behalf in the performance of this Agreement.
- 25. <u>Interpretation of Conflicting Provisions</u>. In the event of any conflict or inconsistency between the provisions of this Agreement and the provisions of any exhibit or other attachment to this Agreement, the provisions of this Agreement shall prevail and control.
- 26. <u>Time is of the Essence</u>. The parties mutually acknowledge and agree that time is of the essence with respect to every provision hereof in which time is an element. No extension of time for performance of any obligation or act shall be deemed an extension of time for performance of any other obligation or act, nor shall any such extension create a precedent for any further or future extension.
- 27. Contract Administrators.

CONTRACTOR's designated principal responsible for administering CONTRACTOR's work under this Agreement shall be:

Agency's designated ac	dministrator of this	Agreement shall be:

28. Notices. Notices required under this Agreement shall be delivered personally or by electronic facsimile, or by first class or certified mail with postage prepaid. Notice shall be deemed effective upon personal delivery or facsimile transmission, or on the third day after deposit with the U.S. Postal Service. CONTRACTOR shall give Agency prompt notice of any change of address. Unless otherwise changed according to these notice provisions, notices shall be addressed as follows:

### TO AGENCY

### TO CONTRACTOR

Name:	Name:	
Address:	Address:	
Telephone:	Telephone:	
Fax:	Fax:	
E-Mail:	E-Mail:	

- 29. <u>Electronic Deliverables.</u> Where feasible, all reports, documents and other printed information provided to the Agency pursuant to this Agreement shall be submitted in both written and Electronic formats.
- 30. <u>Non-exclusive Agreement</u>. This Agreement is non-exclusive and both parties reserve the right to contract with other entities for the same or similar services.
- 31. Execution of Agreement. Any individual executing this Agreement on behalf of an entity represents and warrants that he or she has the requisite authority to enter into this Agreement on behalf of such entity and to bind the entity to the terms and conditions hereof. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.
- 32. Exhibits. The following Exhibits are attached hereto and incorporated by reference:

Exhibit A - Scope of Work/ Work Schedule Exhibit B - Fee Schedule

33. <u>Entire Agreement</u>. As of the effective date of this Agreement, this document, including all exhibits hereto, constitutes the entire agreement between the parties, and supersedes any and all prior written or oral negotiations and representations between the parties concerning all matters relating to the subject of this Agreement.

# MONTEREY COUNTY WATER RESOURCES AGENCY AGREEMENT FOR PROFESSIONAL SERVICES WITH SURVEYORS, ARCHITECTS, ENGINEERS AND/OR DESIGN PROFESSIONALS

IN WITNESS WHEREOF, AGENCY and CONTRACTOR execute this agreement as follows:

<b>CONTRACTOR:</b> FlowWest Inc.	
BY:	
Type Name:	
Title:	
Date:	
BY:	
Type Name:	
Title:	
Date:	

\* INSTRUCTIONS: If CONTRACTOR is a corporation (including limited liability and nonprofit corporations), the full legal name of the corporation shall be set forth together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth together with the signature of a partner with authority to execute this Agreement on behalf of the partnership. If CONTRACTOR is contracting in an individual capacity, the individual shall set forth the name of his or her business, if any, and shall personally sign the Agreement.

<u>Agreement/Amendment No # (</u> * * * * * * * * * * * * * * * * * * *					
Chief Assistant County Counsel	Administrative Analyst				
Dated:	Dated:				
County Counsel – Risk Manager:	Auditor-Controller <sup>2</sup> :				
Dated:	Dated:				

Project ID:

# EXHIBIT A SCOPE OF WORK/WORK SCHEDULE

Agreement between the Monterey County Water Resources Agency (Agency) and Flow West, Inc. (CONTRACTOR) for work to be performed related to the Monterey County Water Resources Agency Flood Emergency Response Project (Project).

Under this Agreement CONTRACTOR will provide services including staff resources or subcontractors to perform tasks related to the implementation of the Project as outlined below.

## **Project Description**

The project seeks to improve local flood emergency response by developing an emergency management and communications tool allowing rapid viewing of county mapping products to allow flood advanced warning in local communities. Contractor proposes to develop a planning tool for Agency that allows rapid viewing of Salinas River flood inundation mapping based on user input of forecasted flows or stages in the Salinas River. This tool will assist MCWRA in predicting flooding extents given forecasts of river flow and provide advanced warning to impacted communities. This effort will be based on an existing HEC-RAS computer model of the Salinas River originally developed by FlowWest in 2014-2015 and updated in 2023. This model predicts hydraulics of the Salinas River from approximately Bradley at the southern extent to the Monterey Bay at the Northern extent. This model will be further updated and refined, simulations of a wide range of flows will be run, flood inundation maps will be created, along with a software tool that allows these maps to be used to forecast flooding patterns. The specific tasks to be performed are detailed below.

Funding for the Project is provided through a reimbursable grant to Agency from the Department of Water Resources (DWR). In addition to the requirements described in this Exhibit, all deliverables must comply with the terms of the payable grant agreement between DWR and the Agency. A copy of the grant agreement will be provided to CONTRACTOR upon request.

### **Project Tasks**

### **Task 1: Model Refinement**

Contractor will perform a variety of tasks aimed at increasing accuracy of the HEC-RAS model, particularly in the lower valley where model predictions may overestimate flood stages and extents. This could be due to Monterey Bay/Salinas Lagoon tidal boundary conditions, roughness coefficients, or other model inputs. These will be investigated with MCWRA and adjusted in an effort to increase accuracy.

## Task 2: Model Simulations and Flood Inundation Mapping

Contractor will perform a suite of simulations of varied flows, including varied tidal conditions in Monterey Bay, to create a library of flood inundation maps. These will likely include flows between 10,000 cfs and 120,000 cfs. We anticipate simulating steady-state flows at intervals between these two bounding flows. Mapped flood inundation outputs will be created for all interval flows. Management of the modeling team and coordination with Agency on model outputs are included in this task.

## **Task 3: Interface Design**

Contractor will meet with Agency to understand their needs and design a user interface that provides the required input from the user and displays flood mapping in desired formats. We anticipate the interface design being a balance between ease of use, complexity and variety of inputs, and available time and budget. Management of development team and coordination with Agency for the interface design are included in this task.

## **Task 4: Tool Software Development**

Contractor will work with Agency to determine the overall application design and software technology stack based on system and IT requirements. We will develop user interface wireframes, the application programming interface (API) and data models, and backend server and API for receiving and processing user queries.

Robust testing will be performed to ensure expected functionality based on agreed upon system requirements, as well as ensuring application performs optimally. We will deploy the frontend user interface, backend, and databased system to an agreed-upon cloud platform (ex: Amazon Web Services, Microsoft Azure, etc.).

Up to two rounds of Agency review and testing and incorporating feedback into the final version of the software are anticipated. Management of the development team and coordination with Agency are included in this task.

#### **Deliverables**

CONTRACTOR will provide:

- Flood inundation maps in ESRI shapefile or raster format.
- A technical memorandum documenting outcomes and updates/refinements made to the model.
- Web-based software tool, documentation, and user manual
- Invoices and associated backup documentation in a format approved by Agency
- Quarterly Progress Reports

- Project Completion Report
- Final Financial Report

Any reports, photos, or written materials provided under this agreement may be submitted as part of Agency reporting requirements to state or federal agencies, shared with Agency directors or committees, or shared with the public via web site or other methods.



# EXHIBIT B FEE SCHEDULE

Estimated costs for tasks identified in this agreement. Tasks are described in detail in Exhibit A. Total contract amount not to exceed \$275,000.

Estimated Project Cost by Task			
Task	<b>Estimated Cost</b>		
Task 1: Model Refinement	\$40,000		
Task 2: Model Simulations and Flood Inundation Mapping	\$55,000		
Task 3: Interface Design	\$40,000		
Task 4: Mapping Tool Software Development	\$140,000		
Project Total	\$275,000		

