#### LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

May 15, 2025

Statement of Qualifications

Contract No. 4400032201

STOP

3-WAY

IDIQ Contract for National Flood Insurance Program (NFIP) and the Cooperating Technical Partnernship (CTP) Program Statewide



halff.com

May 15, 2025

Louisiana Department of Transportation and Development 1201 Capitol Access Road Baton Rouge, LA 70802

#### RE: Contract No. 4400032201

IDIQ Contract for National Flood Insurance Program (NFIP) and the Cooperating Technical Partnernship (CTP) Program Statewide

Dear Members of the Selection Committee:

The Louisiana Department of Transportation and Development (LADOTD) is dedicated to improving the lives of those in communities affected by flooding by providing the tools and resources necessary for flood resiliency. Halff Associates, Inc. (Halff) shares this common value of improving lives by turning ideas into reality on every project we engage in, and in every relationship we build along the way. We are fortunate to have worked alongside LADOTD for the past four years under the current National Flood Insurance Program (NFIP) and Cooperating Technical Partners (CTP) Program Statewide contract. There's still important work to be done, and our strong relationships with DOTD staff and floodplain administrators across Louisiana position us to continue seamlessly. We understand which flood mitigation efforts will have the greatest impact and help set the state apart as a national leader. The Halff Team is ready to hit the ground running with nationally recognized experts and deep local experience. The Halff team brings:

**Proven NFIP and CTP Performance Across Louisiana:** Since December 2021, Halff has supported LADOTD in the execution of 23 distinct task orders, ranging from statewide Phase 1 Discovery and Phase 2 Flood Risk Mapping to CTP and NFIP Business Planning, Finish Floor Elevation Determination pilots, and tailored technical training courses. These efforts span nearly every parish, and our team has built direct connections with local floodplain administrators in the field. Those insights drove us to strategically refine our team composition to better reflect the priorities of the state and the need for localized expertise. For this contract, we have retained C.H. Fenstermaker & Associates, LLC (Fenstermaker) from the previous team and added additional Louisiana-based subconsultants, including Louisiana State University Agricultural Center (LSU AgCenter), University of New Orleans Center for Hazards Assessement, Response & Technology (UNO-CHART), Civil Design & Construction (CD&C), Southern Shores Engineering, LLC (SSE), and ABCD GIS Mapping, LLC (ABCD). These partners bring targeted local expertise in public engagement, technical ordinance support, and field data collection to strengthen LADOTD's reach and delivery.

**FEMA Region VI Leadership and National Expertise**: Halff's national FEMA presence sets us apart. We serve as Earned Value Lead and Regional Production Manager for Region VI under the Compass PTS Joint Venture. In this role, we oversee delivery of high-profile Risk MAP initiatives across multiple regions. No project under our leadership has been delayed due to data quality. Our team has completed more than 90 Risk MAP studies, supporting eight CTPs and FEMA's Coastal Loss Determination initiative. We bring more than 130 Region VI water resources staff, including over 65 Certified Floodplain Managers. These program roles give us unique insight into FEMA's evolving policies and priorities and allow us to bring that insight directly to LADOTD's program.

**Continuity, Capacity, and Local Presence**: With recent staffing changes at FEMA Region VI and LADOTD, the Halff team recognizes the critical need for continuity in consultants to sustain momentum in CTP and NFIP efforts. Our experienced water resources teams in Shreveport and Baton Rouge have built strong, responsive relationships with LADOTD and parish stakeholders. We combine deep program knowledge, a strong local presence, and a proven track record to drive statewide floodplain management.

Trusted Leadership and Team Commitment: Project Manager Brandon Aillet, PE, CFM, with support from Jack Young, PE, CFM, PMP, Victor Bivens, PE, CFM, and Shandy Heil, CFM, has led the delivery of every task order under this contract. This team has adapted to shifting FEMA guidance, regional policy needs, and field-level training demands with speed and consistency. With every new task order, Halff has delivered early, on budget, and with full FEMA compliance.

Halff is ready to continue providing high-quality suport across LADOTD's flood risk management programs. We appreciate this opportunity to build on our momentum and advance Louisiana's leadership in NFIP and CTP delivery.

Sincerely,

Brandon Aillet, PE, CFM Project Manager baillet@halff.com | 318.716.6130

Benjamin Pylant, PE, CFM Principal-in-Charge bpylant@halff.com | 817.764.7488

#### **DOTD FORM: 24-102**

#### PROPOSAL TO PROVIDE CONSULTANT SERVICES

Prime consultant shall complete the DOTD Form 24-102 without altering the Form's text; however, the instruction and/or guidance for Sections 12 through 23 can be removed but do not remove Section title and number.

ANY CONSULTANT FAILING TO SUBMIT ANY OF THE INFORMATION REQUIRED ON THE DOTD FORM 24-102, OR PROVIDING INACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE.

1.	Contract Name as shown in the advertisement	IDIQ Contract for NFIP and the CTP Program Statewide
2.	Contract Number(s) as shown in the advertisement	Contract No. 4400032201
3.	State Project Number(s), if shown in the advertisement	N/A
4.	Prime consultant name (name must match exactly as registered with the Louisiana Secretary of State (SOS) where such registration is required by law; including punctuation; include screenshot from SOS at the end of Section 20)	Halff Associates, Inc.
5.	Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.0003207
6.	Prime consultant mailing address	401 Market Street, Suite 650   Shreveport, Louisiana 71101
7.	Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	401 Market Street, Suite 650   Shreveport, Louisiana 71101
8.	Name, title, phone number, and email address of prime consultant's contract point of contact	Brandon Aillet, PE, CFM • Operations Manager - Shreveport 318.716.6130 • baillet@halff.com
9.	Name, title, phone number, and email address of the official with signing authority for this proposal	Benjamin Pylant, PE, CFM • Chief People Officer 817.764.7488 • bpylant@halff.com
10.	This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.	Bignature above shall be the same person listed in Section 9: 5/15/2025 Date
11.	If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	Firm(s): ABCD GIS Mapping, LLC; Civil Design & Construction, Inc.; Southern Shores Engineering, LLC Firm(s)' %: ABCD GIS Mapping, LLC: 3%   Civil Design &
		Construction, Inc.: 2%   Southern Shores Engineering, LLC: 3%

#### 12 Past Performance Evaluation Discipline Table

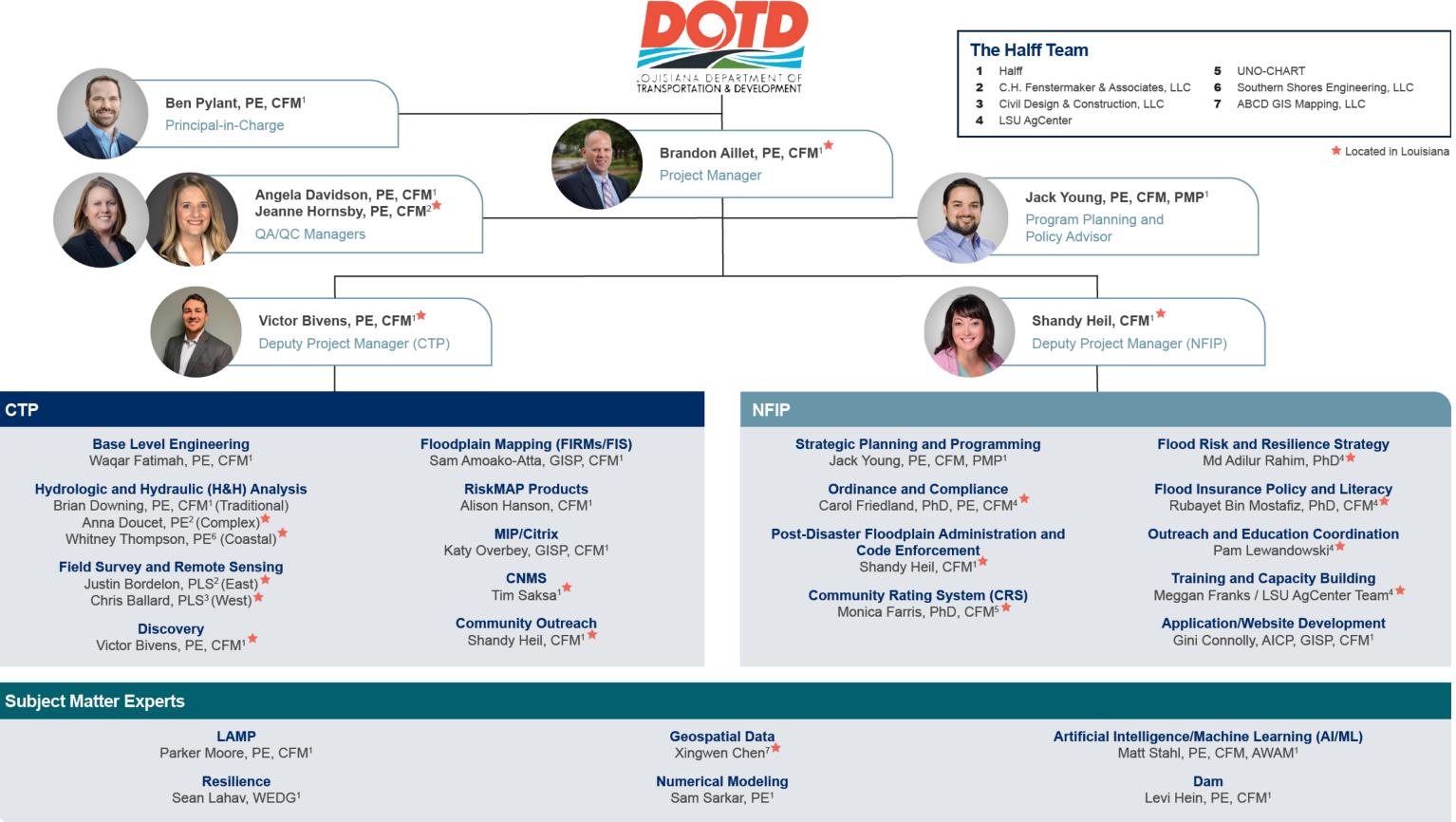
Past Performance Evaluation Disciplines	% of Overall Contract	Halff Associates, Inc.	C.H. Fenstermaker & Associates, LLC	Civil Design & Construction, Inc.	LSU AgCenter	UNO- CHART	Southern Shores Engineering, LLC	ABCD GIS Mapping, LLC	Each Discipline Must Total to 100%
Other (Geographic Information Systems)	15%	80%	0%	0%	0%	0%	0%	20%	100%
Other (Water Resources Engineers)	60%	75%	15%	0%	2.5%	2.5%	5%	0%	100%
Other (Outreach)	20%	60%	20%	0%	10%	10%	0%	0%	100%
Survey	5%	0%	60%	40%	0%	0%	0%	0%	100%
Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.									
Percent of Contract	100%	69%	16%	2%	3.5%	3.5%	3%	3%	

#### 13 Firm Size

Firm Name	DOTD Job Classification	Number of Personnel Committed to this Contract	Total Number of Personnel Available in this DOTD Job Classification (If Needed)
	Administrative	0	4
	Biologist/Wetlands	0	1
	CADD Technician	1	5
	Clerical	1	4
	Engineer	5	8
	Engineer Intern	8	16
	Engineer - Other	3	12
Halff Associates, Inc.	Environmental Pro	0	4
	GIS Analyst	5	12
	Planner	2	6
	Principal	2	6
	Supervisor - Eng	3	6
	Supervisor - Other	2	12
	Technician	5	8
	Total	37	104
	Engineer	6	15
	Engineer Intern	1	10
	Senior Technician	1	9
C.H. Fenstermaker & Associates, L.L.C	Supervisor - Eng	2	3
	Surveyor	1	4
	Total	11	41

Firm Name	DOTD Job Classification	Number of Personnel Committed to this Contract	Total Number of Personnel Available in this DOTD Job Classification (If Needed)
	Surveyor	1	2
	Party Chief	3	4
	Instrument Man	2	2
Civil Design & Construction Inc.	Rodman	2	2
Civil Design & Construction, Inc.	CADD Operator	1	1
	Senior Technician	3	5
	Supervisor - Other (SUE)	1	1
	Total	13	17
	Engineer - Other	1	1
	Professional	2	2
	Computer Analyst	1	1
Louisiana State University Agricultural Center	GIS Analyst	1	1
(LSU AgCenter)	Graphics	1	1
	Senior Technician	2	2
	Total	8	8
University of New Orleans Center for Hazards	Professional	1	3
Assessment, Response & Technology (UNO-CHART)	Total	1	3
	Engineer	3	3
Southern Shores Engineering, LLC	Total	3	3
	GIS Analyst	1	1
ABCD GIS Mapping, LLC	Total	1	1

#### 14 Organizational Chart





#### **15 Minimum Personnel Requirements**

MPR No. Do not insert wording from ad	Personnel Being Used to Meet the MPR (Individuals(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the Advertisement)	Firm Employed By	Type of License and Discipline Meeting MPR/Certification & Number (Ex: PE # - Civil)	State of License	License / Certification Expiration Date
1	Brandon Aillet, PE, CFM	Halff Associates, Inc.	Civil Engineer / #33402 Certified Floodplain Manager / #US-19-11047	Louisiana Louisiana	3/31/26 7/31/25
2	Brandon Aillet, PE, CFM	Halff Associates, Inc.	Civil Engineer / #33402 Certified Floodplain Manager / #US-19-11047	Louisiana Louisiana	3/31/26 7/31/25
3	Brandon Aillet, PE, CFM	Halff Associates, Inc.	Civil Engineer / #33402 Certified Floodplain Manager / #US-19-11047	Louisiana Louisiana	3/31/26 7/31/25
4(a)	Victor Bivens, PE, CFM	Halff Associates, Inc.	Civil Engineer / #47761 Certified Floodplain Manager / #US-24-13061	Louisiana Louisiana	9/30/25 1/31/26
4(b)	Jeanne Hornsby, PE, CFM	C. H. Fenstermaker & Associates, L.L.C.	Civil Engineer / #36717	Louisiana	3/31/26
4(c)	Parker Moore, PE, CFM	Halff Associates, Inc.	Civil Engineer / #46560 Certified Floodplain Manager / #3460-18N	Louisiana Texas	9/30/26 12/31/25
4(d)	Sam Amoako-Atta, GISP, CFM	Halff Associates, Inc.	Certified Floodplain Manager / #1132-07N Geographic Information Systems Professional / #57065	Texas N/A	12/31/25 1/25/27
4(e)	Alison Hanson, CFM	Halff Associates, Inc.	Certified Floodplain Manager / #3459-18N	Texas	12/31/25
4(f)	Katy Overbey, GISP, CFM	Halff Associates, Inc.	Geographic Information Systems Professional / #161749 Certified Floodplain Manager / #3362-17N	N/A Texas	1/25/27 12/31/25
4(g)	Tim Saksa	Halff Associates, Inc.	N/A	N/A	N/A
4(h)	Shandy Heil, CFM	Halff Associates, Inc.	Certified Floodplain Manager / #US-16-09482	Louisiana	1/21/26
4(i)	Carol Friedland, PhD, PE, CFM	Louisiana State University Agricultural Center	Civil Engineer / #10094 Certified Floodplain Manager / #US-12-06337	Wyoming US	12/31/26 7/31/26
4(j)	Gini Connolly, AICP, GISP, CFM	Halff Associates, Inc.	American Institute of Certified Planners / #34526 Certified Floodplain Manager / #4201-22N Geographic Information Systems Professional / #33699	N/A Texas N/A	12/31/25 12/31/25 3/25/27
4(k)	Jack Young, PE, CFM, PMP	Halff Associates, Inc.	Civil Engineer / #43134 Certified Floodplain Manager / #1504-08N Project Management Professional / #2648514	Louisiana Texas N/A	3/31/27 12/31/25 10/17/26

#### 16 Staff Experience

Firm Employed By	Halff Associates, Inc.					Sector Con
Name	Brandon Aillet, PE, CFM		Years of Relevant Experien	ce with this Employer	13	2. 11-
Title	Operations Manager   Shreveport		Years of Relevant Experien	ce with Other Employer(s)	14	
Degree(s) / Years / S	Specialization	BS / 1998 / Civil Enginee	ring			
Active Registration	Number / State / Expiration Date	PE: 33402 / LA / 3/31/26	90842 / TX / 12/31/25; E-207	24 / NE / 12/31/25. CFM: US-19	-11047 / U	S / 7/31/25
Year Registered	PE: (LA) 2007, (TX) 2003, (NE) 2024; C	FM: 2019	Discipline	Professional Engineer, Civil; C	ertified Floo	odplain Manager
Contract Role(s) / B	rief Description of Responsibilities	Project Manager / Responsible for overall communications, responsiveness, and project management for all subsequent task orders.				

Bio: Brandon serves as Project Manager for Halff's FEMA and LADOTD programs, overseeing task order execution, multidisciplinary team coordination, and client engagement across floodplain mapping and NFIP support activities. With more than 27 years of experience, he has led the delivery of over 30 watershed-based studies, PMRs, Discovery projects, and Risk MAP initiatives throughout FEMA Region VI—including current CTP work under LADOTD. Brandon manages compliance with FEMA production systems such as CNMS and MIP, and oversees quality assurance through a dedicated QA/QC team. A Louisiana native, he also played a pivotal role in establishing Halff's Shreveport office and expanding the firm's water resources presence across northern Louisiana, reinforcing Halff's long-term commitment to the state.

05/21 - Ongoing	LADOTD CTP & NFIP Statewide Program Support   Statewide, LA. <i>Project Manager.</i> Responsible for leading the effort since its inception—overseeing technical teams, guiding strategy, and ensuring on-time, compliant delivery of task orders across Louisiana. Brandon serves as the primary point of contact with LADOTD, managing all aspects of the contract including task order development, schedule tracking, QA/QC coordination, budget oversight, and monthly invoicing. He has led the delivery of critical services including Discovery, Flood Risk Identification product development, and community outreach. In addition to program oversight, Brandon directly contributes to capacity-building efforts by leading both virtual and in-person trainings for local floodplain administrators, supporting LADOTD's Tiered State Framework (TSF) progression and FEMA engagement goals. His leadership has ensured LADOTD's CTP program remains responsive, technically sound, and positioned for continued growth.
03/15 - Ongoing	<b>FEMA Risk MAP PTS A&amp;E Contract, Compass JV   Nationwide.</b> <i>Project Manager.</i> Responsible for overseeing staff for all task orders under the Compass contract. Directed Halff staff in this Joint Venture (JV) as a partner of the Compass Production and Technical Services (PTS) team. Managed staff in the production of Risk MAP projects, providing technical support to FEMA staff , supporting disaster response and recovery and answering questions and inquiries from communities and stakeholders throughout Louisiana, Texas, Arkansas, Oklahoma and New Mexico. Principal for the Flood Risk Identification projects as well as 1D and 2D BLE studies of 32 HUC-8 watersheds throughout the region. Ensured staffing and quality control implementation satisfying strict annual scheduling and budgetary requirements as part of this very complex program management for FEMA Region VI, as well as coordination with two primary national firms.
10/21 - 11/23	Lafayette Consolidated Government Repetitive Loss Area Analysis   Lafayette Parish, LA. Project Manager. Responsible for leading the Repetitive Loss Area Analysis (RLAA) for Lafayette Consolidated Government to fulfill FEMA's Community Rating System (CRS) requirements; coordinated outreach to 2,283 property owners, conducted field surveys using a custom mobile data tool, engaged relevant agencies, assessed flood risks and mitigation options, and delivered FEMA-compliant reports that secured all 140 CRS points available for RLAA.
01/16 - 05/17	Drainage Criteria Manual & Stakeholder Meetings   Texarkana, TX. Resource Manager. Responsible for preparing a meeting agenda for the review of the proposed Stormwater Drainage Criteria Manual (DCM) with the selected stakeholders. Compiled comments in an excel spreadsheet, and modified DCM as necessary based on consensus of the group. Once adopted, the DCM will control the planning, design, and construction regulations of all stormwater improvements within the City and ETJ. The City of Texarkana selected six members of the development, engineering, and construction community to review the proposed DCM and make recommendations for revisions, additions, and deletions.

Firm Employed By	Halff Associates, Inc.					0
Name	Benjamin Pylant, PE, CFM		Years of Relevant Experien	ice with this Employer	20	25
Title	Chief People Officer		Years of Relevant Experience with Other Employer(s)		0	
Degree(s) / Years / S	Specialization	MBA / 2009 / Business BS / 2004 / Civil Engineering				
Active Registration	Number / State / Expiration Date	PE: 39193 / LA / 3/31/25; 105125 / TX / 9/30/25. CFM: 0891-05N / TX / 12/31/25				
Year Registered	PE: (LA) 2014, (TX) 2009; CFM: 2005		Discipline	Professional Engineer, Civil; C	ertified Floo	dplain Manager
Contract Role(s) / B	rief Description of Responsibilities	Principal-in-Charge / Responsible for overall management of the contract, assigning staff, ensuring implementation of QC and resolving technical issues.				

Bio: Ben's entire career has focused on managing complex stormwater projects and flood planning. As Principal-in-Charge, Ben will work with Project Manager Brandon Aillet to monitor and determine resource needs, assign and maintain appropriate staffing levels throughout the project lifecycle, and cost effectively provide the most accurate and efficient use of professional personnel. Ben is highly experienced in watershed modeling, master drainage plans, studies and design, bank stabilization, erosion control, water quality BMPs, complex hydrologic and hydraulic modeling, and direct experience in preparing and updating drainage design manuals in Louisiana

05/21 - Ongoing	LADOTD CTP & NFIP Statewide Program Support   Statewide, LA. Principal-in-Charge. Responsible for support of LADOTD's CTP and NFIP initiatives. In this leadership role, Ben worked closely with state staff and community stakeholders to develop LADOTD's long-term business plan for FEMA engagement, aligning funding strategies, community needs, and regulatory objectives. His responsibilities included supporting the identification and prioritization of statewide investments, helping LADOTD translate local and regional challenges into scoped, fundable projects.
03/15 - Ongoing	FEMA Risk MAP PTS A&E Contract, Compass JV   FEMA Region VI. Director. Responsible for overseeing management of the contract, assigning staff, ensuring implementation of QC, and resolving technical issues related to modeling and deliverables. Under his direction, Halff has completed or is completing eight HUC-8 Watersheds in FEMA Region VI utilizing HEC-RAS steady and unsteady modeling as well as 2D to perform Base Level Engineering. Additionally, Halff just recently completed the East Fork Trinity River detailed modeling for more than 69 miles of detailed study which will facilitate the first major watershed addition to the Corridor Development Certificate Program, managed by USACE in North Texas, through a community-wide implementation of higher standards to limit loss of valley storage.
09/18 - 07/19	NCTCOG Integrated Stormwater Management (iSWM) Program   North Central Texas. Project Manager. Responsible for overseeing the management of project tasks including Discovery, high-level hydrologic and HEC-RAS hydraulic analysis as well as detailed study HECHMS hydrology and HEC-RAS hydraulic analyses for seven HUC-8 watersheds. Oversaw floodplain mapping for all study streams as well as Risk MAP non-regulatory products such as changes since the last firm (CSLF), flood depth and analysis grids.
11/11 - 12/15	<b>FEMA Region VI CTP Risk MAP Projects   Arlington, TX.</b> <i>Project Manager/Modeling Lead.</i> Responsible for the Flood Risk Identification project for five major sub-watersheds which included more than 335 detailed subbasin delineations along with development of hydrologic parameters through the highly urbanized areas. Led the technical modeling team to review, update, stabilize, validate and finalize the HEC-RAS unsteady modeling and 2D overflows which were incorporated with the effective FEMA mapping through a PMR and incorporated with the Tarrant and Dallas County DFIRM updates.
12/17 - 05/19	TWDB State Flood Assessment   TX. Deputy Project Manager. Responsible for the state flood assessment through a contract with the Texas Water Development Board (TWDB). The state flood assessment provided the first statewide overview of flood risk, planning and stakeholder views on flood mitigation. Directed staff in the creation and implementation of two statewide surveys, eight regional workshops and nine state/federal agency meetings. This assessment quantified the \$32 billion gap in the flood funding need and played a part in the monumental legislative session with State Bill 7, which established the Texas Infrastructure Resiliency Fund with \$1 billion from the state's rainy day fund, and State Bill 8, which created the framework for the first state flood plan in Texas and provided \$43 million in funding to TWDB.

Firm Employed By	Halff Associates, Inc.					
Name	Victor Bivens, PE, CFM		Years of Relevant Experier	nce with this Employer	7	25
Title	Water Resources Team Leader			Years of Relevant Experience with Other Employer(s) 0		
Degree(s) / Years / S	Specialization	MS / 2020 / Civil Engineering BS / 2018 / Civil Engineering				
Active Registration	Number / State / Expiration Date	PE: 47761 / LA / 9/30/25	PE: 47761 / LA / 9/30/25   CFM: US-24-13061 / US / 1/31/26			
Year Registered	PE: (LA) 2023; CFM: 2024	Discipline Professional Engineer, Civil; Certified Floodplain Manage			odplain Manager	
Contract Role(s) / B	rief Description of Responsibilities	Deputy Project Manager and Discovery / Responsible for communications, responsiveness, and CTP project management.				

Bio: Victor serves as Deputy Project Manager for the LADOTD CTP program, bringing a unique blend of technical leadership and statewide project delivery experience. He has led over 15 Discovery projects across Louisiana and managed a complex multi-jurisdictional flood risk identification effort that included 2D modeling, stakeholder coordination, and FEMA Risk MAP product development. Victor has also delivered both in-person and virtual training sessions as part of LADOTD's Tiered State Framework goals and played a lead role in the pilot for FEMA's Substantial Damage Estimate (SDE) tool. A skilled modeler and project leader, Victor has deep experience in Base Level Engineering using 1D and 2D HEC-RAS models to evaluate mitigation alternatives. Before his floodplain focus, he led public works design projects including storm drainage, roadway improvements, and subdivision infrastructure, giving him a well-rounded understanding of flood risk from both policy and engineering standpoints.

05/21 - Ongoing	LADOTD CTP & NFIP Statewide Program Support   Statewide, LA. Deputy Project Manager. Responsible for direct oversight of flood risk identification and Risk MAP product development across the state. He has led over 15 Discovery efforts, engaging local communities and FEMA partners to assess watershed needs, validate CNMS data, and lay the foundation for Base Level Engineering and mitigation prioritization. Victor also managed a technically complex flood risk identification project involving 2D modeling, product delivery, and regulatory coordination. He led the pilot implementation of FEMA's Substantial Damage Estimate (SDE) tool in Louisiana, helping LADOTD build internal capacity for post-disaster response. In support of the state's Tiered State Framework (TSF) goals, Victor delivered multiple online and in-person training sessions to local officials and floodplain administrators, reinforcing LADOTD's leadership in community assistance and risk communication. His combined technical and engagement expertise has made him a key driver of the program's success.
06/21 - 01/24	<b>FEMA Region VI, Compass PTS   FEMA Region VI.</b> <i>Deputy Project Manager.</i> Victor has played a central role in Halff's FEMA Risk MAP work in Louisiana under the Compass PTS contract, contributing to every BLE project completed by Halff across the state. His responsibilities have grown from hands-on modeling and analysis to serving as a regional leader overseeing the full delivery of Base Level Engineering studies across Northern Louisiana. In his current role as Project Manager, Victor is responsible for supervising teams executing 2D BLE modeling, coordinating regulatory and non-regulatory product development, and aligning BLE deliverables with FEMA's evolving technical standards. He regularly collaborates with FEMA Region VI, LADOTD, and local officials to make sure BLE studies meet Discovery outcomes, CNMS status updates, and Risk MAP production schedules. Victor's progression from technical execution to strategic oversight demonstrates his comprehensive knowledge of FEMA methodologies and his trusted leadership in one of the most active regions for BLE development.
08/22 - 10/23	Rapides Area - Integrated Transportation/Stormwater Resiliency Study Through Stormwater Mitigation   LA. Project Manager. Responsible for leading team in 2D model enhancement through improving land use, terrain, precipitation, and other base file incorporation as well as surveyed structure implementation within the model at hydraulically significant structures. He led stakeholder coordination and outreach efforts to gain local knowledge of flood risk and historic damages caused by flooding. Project objectives were 2D detailed model creation and utilization to assess stormwater mitigation alternatives for transportation resiliency improvements within the Metropolitan Planning Area. These alternatives will be analyzed and submitted for grant pursuit.
12/23 - 7/24	LWI Round 2 Hydrology & Hydraulics Design Support   Rapides Parish, LA. <i>Team Leader</i> . Responsible for providing detailed hydrology and hydraulics design support for five separate projects that were funded through the LWI Round 2 project selection and funding program. Preliminary scope documents show the potential for flood mitigation benefits from channel, structure, storage, and pump station improvements within residential areas of four small communities in central Louisiana.

Firm Employed By	Halff Associates, Inc.					
Name	Shandy Heil, CFM		Years of Relevant Experience with this Employer		1	
Title	Program Manager		Years of Relevant Experience with Other Employer(s)			A
Degree(s) / Years / S	Specialization	BS / 2011 / Construction Management				
Active Registration	Number / State / Expiration Date	CFM: US-16-09482 / LA	/ 1/21/26			
Year Registered 2016			Discipline	Certified Floodplain Manager		
Contract Role(s) / B	rief Description of Responsibilities	Deputy Project Manager / Responsible for communications, responsiveness, and project management for NFIP-related tasks as well as Post-Disaster Floodplain Administration and Code Enforcement, and Community Outreach				

Bio: Shandy serves as Deputy Project Manager for the LADOTD NFIP program, where she leads the delivery of NFIP technical assistance, post-disaster permitting support, and outreach coordination. She has a diverse skillset in multi-hazard disaster response and recovery, building science best practices for flood and wind, mitigation and resilience planning, Community Rating System (CRS) and outreach/education. She has assisted local jurisdictions across the nation following flood and hurricane disasters, aiding in post-disaster damage inspection requirements of the National Flood Insurance Program (NFIP). She formed and led the Louisiana Floodplain Management Association Disaster Response Team from 2016–2021; completing nine volunteer deployments that assisted local floodplain managers with Substantial Damage inspections and high-water mark data collection, during the 2016 Louisiana Flood and Hurricanes Harvey, Laura, Delta and Ida. As a FEMA PTS contractor, Shandy participated and led SDE deployments in Louisiana, Texas, Puerto Rico, and the US Virgin Island. Her experience and expertise in post-disaster code enforcement has helped pave the way for the national "second responder" initiative that serves to support building departments affected by disasters. She is a seasoned outreach educator and course developer that has created countless technical and educational trainings and guidance documents for local, state and federal clients.

12/24 - 1/25	LADOTD CTP & NFIP Statewide Program Support   Statewide, LA. Project/Program Manager. Responsible for leading and executing initiatives that advance the education, training, and technical capacity of floodplain management professionals across Louisiana. This work has focused on improving local government understanding and use of flood risk data to support ordinance enforcement, permitting, mitigation planning, and insurance outreach under the NFIP and Tiered State Framework. Key efforts include the development and delivery of a statewide training series on the interpretation and application of Base Level Engineering (BLE) datasets, with hands-on demonstrations using FEMA's estBFE dashboard and other tools to guide floodplain administrators in identifying best available data. In addition to training delivery, contributed to the development of a strategic roadmap for a Louisiana-led digital platform that would centralize access to FEMA regulatory flood maps, BLE datasets, and Louisiana Watershed Initiative (LWI) risk products. This platform is envisioned as a user-friendly, GIS-based interface that provides local officials, engineers, and the public with seamless access to authoritative and planning-level flood risk data. By integrating multiple data sources and aligning with FEMA and state risk communication goals, the effort lays the groundwork for a long-term,
	state-maintained platform that empowers communities to make risk-informed decisions using the best available information.
7/24 - 12/24	CAP-SSSE Ordinance Updates   LA. Training & Education Task Leader. Responsible for the updates to the State Model Flood Damage Prevention Ordinances and reporting to verify the additions, revisions and edits, to meet the CAP-SSSE tiered state framework requirements. Developed and presented eight webinar trainings on the Federal Flood Risk Management Standard (FFRMS) implications for local officials, reaching 116 flood professionals throughout the state. Assisted in the training development entitled "Utilizing Digital Tools to Determine BFE" which was delivered in seven webinar trainings to flood professionals across the state.
9/17 - 1/23	FEMA Building Science Branch PTS A&E Contract – STARR II JV   United States & USVI. Post-Disaster Code Enforcement SME. Responsible for post-disaster code enforcement using mutual aid. Assisted in the successful deployment of building code enforcement personnel to the USVI Planning Department in response to Hurricanes Irma and Maria utilizing the Emergency Management Assistance Compact (EMAC). Created guidance documents, trainings and assisted in the development of the Mutual Aid for Building Departments (MABD) portal, which provides information on the interstate and intrastate mutual aid legislation capabilities for all 50 states and US territories. Assisted in the development of the NIMS resource typing for building safety evaluations and contributed to the Disaster Recovery Reform Act (DRRA) 1206 Public Assistance policy that was updated in the 2018 Stafford Act.

Firm Employed By	Halff Associates, Inc.				
Name	Jack Young, PE, CFM, PMP		Years of Relevant Experien	ce with this Employer	17
Title	Deputy Practice Leader, Water Resources		Years of Relevant Experien		0
Degree(s) / Years / S	specialization	BS / 2008 / Civil Enginee	ring		CAN
Active Registration	Number / State / Expiration Date	PE: 43134 / LA / 3/31/27;	; 113401 / TX / 9/30/25. CFM: <sup>/</sup>	1504-08N / 12/31/25. PMP: 2648	3514 / 10/17/26.
Year Registered	PE: (LA) 2018, (TX) 2012; CFM: 2008; F	PMP: 2019 Discipline Certified Floodplain Manager			
Contract Role(s) / B	t Role(s) / Brief Description of Responsibilities Program Planning and Policy Advisor / Responsible for Strategic Planning and Programming as we oversight of Halff's CTP and NFIP personnel for the duration of the contract.				ming as well as general
of Louisiana's Tiered Region VI CTP lands supports ordinance as	he strategic planning lead for Halff's FEMA State Framework (TSF) capabilities. With cape—overseeing technical guidance, ord nd programmatic policy review, strategic T compliance roadmaps, advised state part oducts.	over 15 years of experience linance consistency initiation SF planning, and integration	ce in flood risk management ar ves, and BLE standardization a on of FEMA tools into Louisian	nd FEMA program delivery, Jack across multiple states. Under the a's permitting and outreach worl	has helped shape the LADOTD contract, he kflows. Jack has led the
05/21 - Ongoing	LADOTD CTP & NFIP Statewide Program Support   Statewide, LA. Programmatic Planning and Strategic Advisor. Responsible for support of LADOTD's CTP and NFIP initiatives. In this leadership role, Jack worked closely with state staff and community stakeholders to develop LADOTD's long-term business plan for FEMA engagement, aligning funding strategies, community needs, and regulatory objectives. His responsibilities included supporting the identification and prioritization of statewide investments, helping LADOTD translate local and regional challenges into scoped, fundable projects. Jack played a central role in designing and launching new initiatives—most notably leading the strategic development of Louisiana's pilot Substantial Damage Estimate (SDE) project—and supported its transition from concept to implementation. He also helped shape the program's internal structure by guiding LADOTD's delivery strategy and ensuring consistency, responsiveness, and technical alignment across all task orders and support staff. In addition to strategic oversight, Jack led multiple in-person and virtual trainings for local floodplain administrators, delivering FEMA-aligned content that strengthened local NFIP implementation and positioned LADOTD to progress within the Tiered State Framework.				
03/15 - Ongoing	<ul> <li>FEMA Risk MAP Production and Technical Services (PTS) A&amp;E Contract   Nationwide. Regional Production Manager. Responsible for overseeing the full suite of FEMA Risk MAP activities across FEMA Region VI. In this role, he directed all technical production efforts that align with Cooperating Technical Partner (CTP) responsibilities, including Discovery, Base Level Engineering (BLE), hydrologic and hydraulic (H&amp;H) analysis, floodplain mapping, levee analysis under LAMP, and MT-2 (LOMR/CLOMR) processing. He managed production workflows in the Mapping Information Platform (MIP), coordinated project delivery schedules, and verified quality assurance across all regulatory and non-regulatory FEMA products.</li> <li>Jack also led the FEMA Region VI Regional Support Center (RSC), a multi-disciplinary team of subject matter experts that provided day-to-day technical and programmatic assistance to FEMA staff. Under his leadership, the RSC supported numerous NFIP-aligned functions, including CNMS updates, ordinance and compliance reviews, and permit file assessments. The team also provided technical support to FEMA's Floodplain Management and Insurance (FM&amp;I) Branch in preparation for Community Assistance Visits (CAVs) and Community Assistance Contacts (CACs), as well as direct technical assistance to communities undergoing those visits. The RSC was further responsible for managing LOMR-related issues and offering regulatory guidance throughout Region VI.</li> <li>In addition to technical and operational leadership, Jack played a key role in developing and delivering both internal and external training. He facilitated virtual and in-person sessions for FEMA staff, state partners, and local officials on topics including BLE data usage, regulatory mapping workflows, FEMA systems (MIP/Citrix), risk communication, and post-disaster floodplain permitting. His ability to distill complex FEMA guidance into actionable, community-relevant material made him a trusted trainer and advisor across multiple states. Jac</li></ul>				

Firm Employed By	Halff Associates, Inc.					
Name	Angela Davidson, PE, CFM		Years of Relevant Experience with this Employer		21	13
Title	Water Resources Quality Assurance Manager		Years of Relevant Experien	ce with Other Employer(s)	0	
Degree(s) / Years / Specialization     ME / 2004 / Environment       BS / 2004 / Environment			0 0			
Active Registration	Number / State / Expiration Date	PE: 446465 / LA / 9/30/20	6; 101339 / TX / 3/31/26. CFM	: 0896-05N / 12/31/25.		
Year Registered	PE: (LA) 2022, (TX) 2008; CFM: 2005		Discipline	Professional Engineer, Enviror Floodplain Manager	nmental; Ce	ertified
Contract Role(s) / B	rief Description of Responsibilities	QA/QC Reviewer / Resp	onsible for internal implement	ation and external deliverables.		
Bio: Angela brings over 15 years of experience in flood risk management, with deep expertise in hydrologic and hydraulic modeling, regulatory mapping, and quality assurance. As Halff's Water Resources Practice QA/QC Lead, she is responsible for reviewing technical deliverables for FEMA and LADOTD projects, ensuring compliance with agency standards and defensible methodologies. Angela has led independent QA/QC on 1D and 2D HEC-RAS modeling, Base Level Engineering, and DFIRM deliverables across FEMA Region VI. She has extensive hands-on experience with HEC-HMS, HEC-RAS, SWMM, and other flood modeling platforms, and understands the complexities of guiding projects through FEMA's Mapping Information Platform (MIP) process. Angela's technical depth and attention to detail make sure that every project meets the highest quality expectations while addressing the local regulatory landscape.						

12/20 - 8/21	Louisiana Water Initiative Region 4 Modeling Contract   LA. Lead Engineer. Responsible for developing HUC 8 models to aid in coordination of funds, data, and resources which will help reduce flood risk through a watershed-based approach within the state of Louisiana. The Toledo Bend watershed drains approximately 2,368 square miles and encompasses 59 main streams in addition to the Sabine River. Drainage within the Toledo Bend watershed generally flows from northwest to south into the Toledo Bend Reservoir. Hydrologic and hydraulic models were prepared in accordance with the approved work plan and modeling guidelines provided by the Technical Design and Quality Team (TDQ),
	The U.S Army Corps of Engineers (USACE) Hydrologic Engineering Center's (HEC)-Hydrologic Modeling System (HEC-HMS) Version 4.11 was used to develop new hydrologic rainfall-runoff models to simulate subbasin responses to meteorological events. For the Toledo Bend Reservoir-Middle Sabine watersheds, the model design approach adhered to guidance and review comments provided by the LWI TDQ, leveraged the team's engineering and survey experience and expertise, incorporated existing data, and put a focus on local needs. The model used a tiered modeling approach making use of different resolutions as necessary depending on key data drivers such as population, National Flood Insurance Program (NFIP) flood claims, social vulnerability, and other hydrologic and hydraulic drivers within the watershed.
3/19 - 4/21	FEMA CTP Risk MAP   North Central Texas. Project Manager. Responsible for assisting with the Flood Risk Identification study for the Mary's Creek Watershed in Parker County through a multi-year contract with NCTCOG. The project included a detailed survey, hydrology, hydraulics, and floodplain mapping for the 18.2 square mile watershed to develop regulatory and non-regulatory flood risk projects that will be used to ultimately update the FEMA Flood Insurance Study (FIS) for Parker County.
05/13 - 05/14	FEMA CTP FY16   Fort Worth, TX. Project Manager. Responsible for the project areas including a total of 37 stream miles draining a total land area of 279 square miles with an estimated affected population of 119,000 people. Tasks included terrain development, survey, detailed hydrology, detailed hydraulics, floodplain mapping, and non-regulatory product development. The Little Dosier, Clear Fork, and Henrietta watersheds included the development of new detailed hydrology, hydraulics, and floodplain mapping. Cottonwood, Overton, and Tonys Creek were leveraged for this study and used to develop FEMA regulatory products.
10/13 - 9/15	FEMA CTP FY17 Clear Fork   Benbrook, TX. Project Engineer. Responsible for assisting with updating and identifying flood risks to revise the effective FEMA Flood Insurance Study (FIS) and Digital Flood Insurance Rate Maps (DFIRM) for Clear Fork Tributary 5, Bellaire Creek, and Mont Del Creek in Benbrook, Texas. The project included developing detailed hydrologic modeling for the Stream CF-5 watershed, hydraulic modeling for the three study streams, and floodplain mapping of 2.2 stream miles. The study also included a 2D analysis of overflow. This study involved collaborative efforts with NCTCOG and FEMA.

Firm Employed By	C.H. Fenstermaker & Associates, LLC					65
Name	Jeanne Hornsby, PE, CFM		Years of Relevant Experier	nce with this Employer	18	120
Title	Director, Engineer		Years of Relevant Experier	nce with Other Employer(s)	2	
Degree(s) / Years / Specialization			MS / 2007 / Hydraulics and Environmental Engineering BS / 2005 / Civil Engineering			
Active Registration	Number / State / Expiration Date	PE: 0036717 / LA / 03/31	/26			
Year Registered	ar Registered 2011 Discipline			Professional Engineer, Civil; C	ertified Floo	odplain Manager
Contract Role(s) / Brief Description of Responsibilities		QA/QC Reviewer / Resp	onsible for internal implementa	ation and external deliverables.		

Bio: Jeanne is an Engineering Director at Fenstermaker with engineering design and project management experience. Her main responsibilities include managing, designing, and completing quality control on multi-million-dollar projects that range from roadway design and construction to coastal and storm water management for both the public and private sectors. Ms. Hornsby currently leads Fenstermaker's Water Resources Team, and her expertise has developed through the successful completion of several numerical modeling analyses, roadway designs, and stormwater master plans. She has also worked closely with LADOTD on roadway design projects and Environmental Impact Statements. She currently serves as Calcasieu Parish's consulting drainage engineer responsible for development of the Parish's watershed master plan which includes large-scale numerical models and BCA developments.

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05/21 - Ongoing	LADOTD CTP & NFIP Statewide Program Support   Statewide, LA. Primary Subconsultant Point of Contact. Responsible for leading subconsultant efforts in support of Discovery and flood risk identification activities. She has played a key role in facilitating Discovery coordination with local stakeholders and guiding field data acquisition and survey planning for H&H and BLE development. Her technical oversight verifies the accuracy and completeness of critical inputs that support FEMA regulatory and non-regulatory products.
	In addition to her technical support, Jeanne contributes to program-level planning efforts by advising LADOTD staff based on her deep knowledge of Louisiana's geography, local floodplain priorities, and stakeholder needs. Her understanding of state agency workflows and community dynamics has helped LADOTD refine its approach to prioritizing projects, engaging local officials, and aligning with FEMA's expectations. Jeanne's collaborative, detail-oriented approach makes her a trusted partner in advancing Louisiana's statewide flood risk initiatives.
06/20 - Ongoing	Louisiana Watershed Initiative Region 4   De Soto, Sabine, Vernon, Rapides, Beauregard, Allen, Jefferson Davis, Calcasieu, and Cameron Parishes, LA. Lead H&H Engineer. Responsible for the Louisiana Watershed Initiative Region 4, an unprecedented project that will manage the future flood risk in the State of Louisiana through watershed-based solutions. Jeanne was responsible for the oversight of all hydrologic and hydraulic tasks, data collection, model development, and engineering to successfully complete an interactive, usable, and manageable hydraulic and hydrologic model of Region 4. These models will consider the degree to which communities within a watershed are hydraulically and hydrologically connected and will guide decisions regarding the coordination and implementation of land use, policy, and infrastructure improvements to effectively manage flood risk at the watershed level.
04/18 - 4/24	<b>Calcasieu Parish Regional Watershed Modeling &amp; Planning   Calcasieu Parish, LA.</b> <i>Project Manager.</i> Responsible for all aspects of the project including developing one- and two-dimensional watershed models (Using HEC-HMS and HEC-RAS), developing future planned conditions, developing floodplain and watershed management ordinances, evaluating mitigation projects utilizing the Deltares Dynamic Adaptive Pathways and Policies (DAPP) process, completing a detailed hydraulic inventory, updating their flood alert system, generating a drainage report card, and conducting all public and agency meetings. Unique to this Master Plan, Calcasieu Parish requested Ms. Hornsby's Team to develop a parish-wide structure inventory leveraged against modeling data to then perform consequence modeling in order to determine which potential projects provide the most benefit on an HMA Grant Application. HMA grant applications share similar requirements with Louisiana Watershed Initiative (LWI) applications regarding demonstrating cost-effectiveness, showing eligible mitigation and activity types, and preparing detailed H&H analyses and data to support Benefit Cost Analyses (BCA). As the project manager, Ms. Hornsby successfully coordinated efforts among subconsultants to achieve a timely project delivery that exceeded the client's expectations.
09/11 - 09/18	Coulee Ile des Cannes Watershed Study (HUC 10) & Physical Map Revision   Lafayette Parish, LA. H&H Modeler. Responsible for developing an unsteady HEC-RAS model, calibrated and validated the model using data collected from two different storm events, and then used the model to determine the 100-year flood extents. She also assisted in the preparation of the Letter of Map Revision (LOMR) submittal to FEMA which resulted in a Physical Map Revision (PMR) that impacted 11 Flood Insurance Rate Maps (FIRM) panels. This effort is estimated to be the largest LOMR prepared in the U.S.

Firm Employed By	Halff Associates, Inc.					
Name	Waqar Fatimah, PE, CFM		Years of Relevant Experier	nce with this Employer	9	
Title	Project Manager		Years of Relevant Experier	nce with Other Employer(s)	1	
Degree(s) / Years / S	Specialization	MS / 2016 / Civil Enginee BS / 2011 / Civil Enginee	-			
Active Registration Number / State / Expiration Date PE: 137221 / 1			25; 21819 / AR/ 12/31/25; 342	47 / OK / 1/31/26. CFM: 3468-18	3N / TX / 12	/31/25.
Year Registered	PE: (LA) 2011, (TX) 2020, (AR) 2023, (C	DK) 2023; CFM: 2018	Discipline	Professional Engineer, Civil; Ba	ase Level E	ngineering
Contract Role(s) / Brief Description of Responsibilities Base Level Engine standards and delivered				asks related to BLE to verify con	sistency wit	h regional
Bio: Waqar is a licensed Professional Engineer and Certified Floodplain Manager with nearly a decade of experience in flood risk modeling, regulatory mapping, and FEMA program delivery. Her expertise lies in Base Level Engineering (BLE) development and hydrologic and hydraulic (H&H) modeling using 1D and 2D HEC-RAS, HEC-HMS, and GIS-integrated workflows. She serves as a technical lead for BLE efforts across multiple FEMA Region VI states, managing terrain prep, model development, cross-section extraction, and floodplain delineation for Risk MAP products.						
FEMA Risk MAP PTS A&E Contract - Compass JV   FEMA Region VI. Project Manager. Responsible for providing technical oversight of terrain development, hydrology, and reviews, hydraulics, and flood hazard mapping tasks, and coordination. The project supports FEMA's Discovery process						

06/18 - Ongoing	development, hydrology, and reviews, hydraulics, and flood hazard mapping tasks, and coordination. The project supports FEMA's Discovery process and provides validation of effective Zone A Special Flood Hazard Areas (SFHA). This includes the development of 1D and 2D BLE analysis for seven 2D Louisiana HUC-8 watersheds (Bayou Pierre, Loggy Bayou, Middle Red-Coushatta, Saline Bayou, Red Chute, Upper Calcasieu and Black Lake Bayou) and two 1D HUC-8 watersheds (Lower Nueces BLE and Pedernales River). Also served as QA/QC Engineer providing technical expertise and QA/QC for the hydrologic analysis and hydraulic models, gage analysis, and mapping for Lower Trinity Kickapoo Watershed. Also served as Study Engineer developing hydrologic analysis including gage and dam analysis, hydraulic models, and mapping for Kiamichi River and Blue River watershed in order to produce flood risk mapping for the study area.
	FEMA Paging VI CTR Bick MAR Prejects   Delles TV, Study Engineer, Responsible for developing hydrolegie and 1D 9 2D steady 9 upstacky hydrolegie

#### FEMA Region VI CTP Risk MAP Projects | Dallas, TX. Study Engineer. Responsible for developing hydrologic and 1D & 2D steady & unsteady Hydraulic 06/16 - 08/18 Analysis of existing and future conditions, and floodplain mapping for Five Mile mainstem and Stream tributaries for the City of Dallas. The purpose of this study was to re-evaluate the flood risks and ultimately revise the FEMA Flood Insurance Study (FIS) and DFIRM database for the study streams.

FEMA Region VI CTP Risk MAP Projects | Fort Worth, TX. Study Engineer. Responsible for developing hydraulic and hydrologic analysis of existing and fully conditions for White Branch Tributary 2 for the City of Fort Worth. Also creating stream profiles for White Branch and Summers Creek Watershed. The purpose of this study was to re-evaluate the flood risks and revise the FEMA Flood Insurance Study (FIS) and DFIRM database for the study stream.

#### 03/18 - 01/19 Mill Creek, East Peak, and Peaks Branch Master Drainage Plan Reports | Dallas, TX. Project Engineer. Responsible for assisting with the Mill Creek, East Peak, and Peaks Branch master drainage plan reports and updating cost estimate for the proposed alternates suggested for the three watersheds

 Stormwater Capital Improvement Plan for the City of Krugerville | Krugerville, TX. Project Engineer. Responsible for performing 2D hydraulic

 04/18 - 05/19
 Rain-on-Grid analysis (rapid assessment) using XPSWMM model to determine hot-spots in the low-lying areas and provided alternatives to develop a conceptual capital improvement plan in order of their priority and estimated probable construction cost for each priority area.

10/17 - 11/19 Floodplain Mapping Updates | Sherman, TX. Study Engineer. Responsible for conducting Hydraulic and Hydrologic Analysis on the existing and fully developed study on East Fork Creek of Post Oak Creek, Montgomery Creek, Grand Creek, and its tributaries to update the floodplain mapping on the study area in support of a LOMR.

Firm Employed By	Halff Associates, Inc.					
Name	Brian Downing, PE, CFM		Years of Relevant Experien	nce with this Employer	11	250
Title	Project Manager		Years of Relevant Experien	nce with Other Employer(s)	0	
Degree(s) / Years / Specialization		BS / 2015 / Civil Enginee	ring			
Active Registration Number / State / Expiration Date		PE: 43772 / LA / 3/31/26	; 133682 / TX / 12/31/25			
Year Registered	PE: (LA) 2019; (TX) 2019		Discipline	Professional Engineer, Civil; C	ertified Floo	odplain Manager
Contract Role(s) / Brief Description of Responsibilities		H&H Analysis / Respons	ible for H&H Analysis tasks in s	support of CTP.		

Bio: Brian is a Halff Water Resources team leader with extensive experience in flood mitigation studies and municipal master drainage plans. Brian leads projects of various scales that require collaborating with local, state and federal agencies to navigate regulatory landscapes and deliver impactful solutions in both local and regional floodplain management.

09/19 - 3/21	FEMA Risk MAP PTS A&E Contract - Compass JV   TX. Engineer. Responsible for creating streams, basins, and calculated discharges for each stream. Created, refined, and validated HEC-RAS models. Ran error checks and floodplain mapping automated tools. Lower Trinity-Tehuacana - Study Manager. Responsible for the delivery of the Lower Trinity-Tehuacana HUC 8 watershed 1D BLE.
01/22 - 5/24	Mid-Basin Flood Mitigation Study   Trinity, TX. Project Manager. Responsible for preparing a reconnaissance-level study of existing and potential flood mitigation opportunities in the Trinity River Mid-Basin. The study involved identifying existing major flood control and water supply reservoir infrastructure within the region. Halff identified data gaps and recommended additional studies and strategies for the areas of mitigation interest.
09/20 - 1/22	<b>FEMA Region VI Modeling   Denton, TX.</b> Engineer. Responsible for modeling within the Lower Trinity-Kickapoo HUC-8 watershed, a 3,270 sq mi area in Texas. Main area of focus within the HUC-8 watershed consisted of the Caney Creek HUC-10 which contains the main branch for Caney Creek flowing into Bedias Creek. Modeled the Long King Creek HUC-10 hydrology and hydraulics. Created hydrostreams, basins and flow discharges through each stream. Calculated main channel slopes. Created, refined and validated HEC-RAS models. Ran error checks and floodplain mapping automated tools.
11/19 - 3/21	City of Plano 2019 Miscellaneous Drainage   Plano, TX. Lead Engineer. Responsible for the development of PS&E for the construction of miscellaneous drainage improvements at seven sites at various locations in Plano. Improvements include grading, energy dissipater, culvert realignment, flume construction, headwall replacement, closed-conduit storm drain construction, retaining wall and streambank stabilization.
3/15 - 3/19	Lower Brazos Flood Protection Study   Rosenberg, TX. Engineer. Responsible for the development and calibration of hydrologic models as well as steady- and unsteady-state hydraulic models. Developed a detailed hydrologic model for the Lower Brazos River below reservoirs encompassing 10,000 square miles through 18 counties in Central Texas. Developed limited detailed hydraulic models of major connecting streams for routing purposes. Calibrated the models to nine historical storm events at 19 USGS gauge locations. Developed a detailed unsteady hydraulic model for the Brazos River from the Grimes/Waller County Line to the Gulf of Mexico. Incorporated the existing unsteady hydraulic analysis through Fort Bend County.

Firm Employed By	C.H. Fenstermaker & Associates, LLC					
Name	Anna Doucet, PE		Years of Relevant Experience with this Employer		10	25
Title	Manager, Engineer		Years of Relevant Experien	ce with Other Employer(s)	0	
Degree(s) / Years / Specialization		BS / 2014 / Civil Engineer	ring			
Active Registration Number / State / Expiration Date		PE: 43469 / LA / 9/30/25				
Year Registered	2019		Discipline	Professional Engineer, Civil		
Contract Role(s) / Brief Description of Responsibilities		H&H Analysis / Responsil	ble for H&H modeling and ana	lysis.		

Bio: Anna is a highly experienced Professional Engineer with expertise in various areas such as roadway design, hydrologic and hydraulic modeling, project management, and construction management for both water resource and transportation projects. She has worked on various civil design projects for different clients including Calcasieu Parish Police Jury, Sasol, Lafayette Consolidated Government, and the City of Scott. She has also coordinated with several agencies, including LADOTD, FEMA, GOHSEP, and several local municipalities. She has served as project manager and deputy project manager on multi-million-dollar projects for both the public and private sector. Her primary responsibilities include serving as a project manager-engineer for various projects such as roadway and hydraulic modeling. She has completed several water resources projects, including numerical hydrologic and hydraulic modeling for the use of floodplain mapping, FEMA No-Rise, and FEMA LOMR. She has also utilized numerical modeling to evaluate future conditions of drainage basins and proposing economical projects that would benefit individual watersheds. Anna is proficient in various software and services such as HEC-HMS, HEC-RAS (both 1D and 2D), LADOTD's HYDRWIN, MicroStation (which includes InRoads and AutoTURN), and HydroCAD. She also has experience with ArcGIS, ESRI Applications such as StoryMap and Collector, community outreach, public education, and website development. She has completed formal HEC-RAS training on two-dimensional modeling through West Consultants.

04/20 - 04/21	Louisiana Watershed Initiative Region 4   De Soto, Sabine, Vernon, Rapides, Beauregard, Allen, Jefferson Davis, Calcasieu, and Cameron Parishes, LA. <i>Regional H&amp;H Lead Modeler</i> . Responsible for the Louisiana Watershed Initiative Region 4, an unprecedented project that will manage the future flood risk in the State of Louisiana through watershed-based solutions. Ms. Doucet was also responsible for assisting with data collection, modeling inputs, cost estimates, stakeholder outreach, and other engineering tasks to successfully complete an interactive, usable, and manageable hydraulic and hydrologic Region 4. These models will consider the degree to which communities within a watershed are hydraulically and hydrologically connected and will guide decisions regarding the coordination and implementation of land use, policy, and infrastructure improvements to effectively manage flood risk at the watershed level.
04/18 - 04/24	<b>Calcasieu Parish Regional Watershed Modeling and Planning   Calcasieu Parish, LA.</b> <i>H&amp;H Modeler.</i> Responsible for modeling several Calcasieu Parish laterals in HEC-RAS, project management activities, assisted with the inventory task utilizing GIS, and managed the implantation on the street level drainage projects. Ms. Doucet utilized both 1D and 2D numerical hydraulic modeling for this project. The project involved one and two-dimensional hydrologic and hydraulic numerical modeling (using HEC-RAS and HEC-HMS), website development (which encompasses a Geographic Information System (GIS) mapping engine), project management (which include public and stakeholder meetings), pre-planning activities (including the development of a process to document key stakeholder insights, a clear mission and goals for the desired future drainage conditions, and a watershed selection matrix), benchmarking, preparation of a drainage infrastructure watershed report card, master plan development, implementation and monitoring, and development of street level drainage projects. Ms. Doucet assisted with
05/17 - 11/20	Lafayette Parish FEMA Model Analysis and Review; FEMA Community Rating System (CRS) Management   Lafayette Parish, LA. H&H Modeler/Analyst. Responsible for completing a feasibility analysis for a regional detention pond along Coulee Mine East. This included modeling several scenarios in HEC-RAS and producing a technical memorandum as the final deliverable.
02/22 - 11/22	<b>Discovery NFIP CTP   Statewide, LA.</b> <i>QA/QC Reviewer/Community Outreach.</i> As a subconsultant to Halff, Fenstermaker prepared Pre-Discovery maps in GIS format, conducted a community assessment with local officials to discuss local needs, and documented all attempted and successful communications. Fenstermaker also captured community snapshot summaries and figures for each parish and incorporated this data in each of the three Discovery watersheds. Fenstermaker's GIS Services team prepared the Discovery Coordinated Needs Management Strategy geospatial database. Anna met with Allen Parish to discuss local needs. She reviewed deliverables created for all watersheds included in the task order and summarized comments from communities.

Firm Employed By	Southern Shores Engineering, LLC					
Name	Whitney Thompson, PE		Years of Relevant Experier	nce with this Employer	5	
Title	Principal, Coastal/Civil Engineering and	Planning	Years of Relevant Experier	nce with Other Employer(s)	15	
Degree(s) / Years /	Specialization	BS / 2005 / Civil Enginee	ring			
Active Registration	Number / State / Expiration Date	PE: 34825 / LA / 3/31/26	; 128541 / TX / 9/30/25			
Year Registered	PE: (LA) 2009, (TX) 2017		Discipline	Professional Engineer, Civil		
Contract Role(s) / E	Brief Description of Responsibilities	H&H Analysis (Coastal) / support resilient shoreline		tal H&H analysis using numerica	al and physi	ical modeling to

Bio: Wendy is responsible for the design, management, and construction implementation of civil and coastal projects including pavement design, earthwork, erosion control, drainage design, ecosystem restoration, dredging, shoreline stabilization. She is an industry expert in Louisiana ecosystem restoration and has planned and designed over 4,000 acres of habitat. She has overseen the placement of over 15,000,000 cubic yards of dredged material for restoration of the most dynamic coastlines and managed construction projects up to \$120,000,000 in value. She has worked closely with state and federal agencies, as well as the private sector, leading clients from feasibility to permitting and design and through construction. She has led alternatives analyses, economic analyses, risk analyses, and habitat value assessments for several coastal restoration feasibility studies and environmental impact statements. She is responsible for firm operations and quality control.

04/24 - Ongoing	City of New Orleans, Lincoln Beach Master Plan and Preliminary Design   Orleans Parish, Louisiana. Principal Engineer. Lincoln Beach is situated along Lake Pontchartrain in New Orleans and was once a vibrant and cherished destination for waterfront recreation. Over time, this historic site experienced prolonged public closure and disinvestment, leaving it underutilized. The City of New Orleans plans to redevelop the site into a resilient waterfront destination. SSE is leading environmental permitting and planning as well as tree surveying. SSE is also leading beach and coastal structure design.
12/23 - 02/25	Native Shorelines, Living Shoreline Analysis and Numerical Modeling Study   Multiple Project Sites (Gulf and Atlantic). Principal Engineer. Conducted engineering analyses along the Atlantic coast of North Carolina to optimize QuickReef® living shoreline structures. A wave flume physical modeling study was performed on three designs. SSE performed computational fluid dynamics modeling via FLOW-3D on numerous design variations to evaluate wave transmission and reflection of the structures after calibrating the numerical model based on physical modeling results. A quantitative study of the performance of 4 oyster reef living shoreline designs in Bogue Sound, North Carolina was performed. Wave attenuation and shoreline response was monitored in the field. In addition, 3D photogrammetry was collected to assess oyster spat recruitment and quantitatively evaluate marine ecosystem development.
05/14 - 03/18	National Marine Fisheries Service (NMFS), NRDA Chenier Ronquille Barrier Island Restoration and Vegetative Plantings   Plaquemines Parish, LA. <i>Project Engineer</i> . Conducted engineering and design of Chenier Ronquille Barrier Island for CPRA in partnership with the National Oceanic and Atmospheric Administration (NOAA). Gulf of Mexico sediment was dredged and placed on Chenier Ronquille to create beach, dune, and back-barrier marsh habitat. Completed a tidal datum analysis to design beach, dune, and intertidal back-barrier marsh. Managed modeling study in which DELFT-3D was used to analyze project alternatives throughout the 20-year design life. Designed the proposed beach/dune and marsh creation area to achieve target habitat acreage by evaluating average existing elevations, the tidal datum, desired vegetation species, physical properties of the borrow material, and the estimated settlement of the underlying soils. Designed layout of vegetative plantings post-construction and implemented installation.
08/11 - 07/17	<b>CPRA, NRDA Shell Island Barrier Island Restoration   Plaquemines Parish, LA.</b> <i>Project Manager.</i> Designed and managed the Shell Island Restoration project for the Coastal Protection and Restoration Authority (CPRA). Mississippi River sediment was dredged and placed on Shell Island to create beach and dune habitat. Back-barrier marsh was constructed with Mississippi River sediment and Gulf of Mexico borrow. Coordinated with local pilots' associations to achieve a successful construction course while maintaining safe and effective local navigation operations. Managed SBEACH study to analyze habitat acreages at the end of the 50-year project life, evaluating effects of numerous storm events. Prepared permit application package and coordinated with regulatory agencies to verify successful project implementation.

Firm Employed By	C.H. Fenstermaker & Associates, LLC					
Name	Justin Borderlon, PLS		Years of Relevant Experier	nce with this Employer	18	
Title	Manager, Surveyor		Years of Relevant Experier	nce with Other Employer(s)	0	
Degree(s) / Years / Specialization BS / 2009 / B		BS / 2009 / Business Ad	ministration			
Active Registration	Number / State / Expiration Date	PLS: 0005271 / LA / 3/31	/26			
Year Registered	2021		Discipline	Professional Land Surveyor		
Contract Role(s) / B	rief Description of Responsibilities	Field Survey and Remote	e Sensing / Responsible for su	irvey tasks in support of CTP.		

Bio: Justin is a Professional Land Surveyor in Louisiana. His initial surveying work included performing underwater acoustic investigations and hydrographic surveys. As he gained more experience, Mr. Bordelon became Fenstermaker's underwater acoustic investigation manager and worked on many projects, including an inspection of over 100 bridges for the Louisiana Department of Transportation and Development. He then became a Survey Crew Manager and managed crews in Lafayette, Shreveport, and Midland, TX. Justin currently coordinates and supervises activities of field and office personnel for remote sensing projects. He also acts as Project Manager and assists with pre-project planning, post data collection analysis and preparing deliverables. Additionally, he is responsible for client interaction and coordination.

04/20 - 12/23	Louisiana Watershed Initiative Region 4   De Soto, Sabine, Vernon, Rapides, Beauregard, Allen, Jefferson Davis, Calcasieu, and Cameron Parishes, LA. <i>Surveyor.</i> The Louisiana Watershed Initiative is an unprecedented project that will manage the future flood risk in the State of Louisiana through watershed-based solutions. For Region 4, Fenstermaker is performing hydrologic and hydraulic tasks, data collection, model development, and engineering to successfully complete an interactive, usable, and manageable hydraulic and hydrologic model of the region. These models will consider the degree to which communities within a watershed are hydraulically and hydrologically connected and will guide decisions regarding the coordination and implementation of land use, policy, and infrastructure improvements to effectively manage flood risk at the watershed level. Justin researched existing survey data and identified data gaps, scoped and planned the survey effort, coordinated field crews, reviewed hydrographic and bathymetric data, processed collected multibeam data, and reviewed and finalized survey deliverables.
03/20 - 10/23	Calcasieu Parish Regional Watershed Modeling and Planning   Calcasieu Parish, LA. Surveyor. Fenstermaker provided surveying services within the project area in support of the modeling efforts for the project. The survey task consisted of the collection of roadside ditch inverts, cross drains, high and low cords on existing bridge decks, and documentation of the existing conditions of the crossings. Justin oversaw field coordination, project management, and data processing for all the bathymetric surveys required.
06/10 - 06/10	Sunshine Bridge Underwater Acoustic Survey   St. James Parish, LA. Survey Technician. Fenstermaker was contracted to perform and Underwater Acoustic Imaging Investigation of the pier protection systems on Piers 3, 4, and 5 of the Sunshine Bridge near Donaldsonville, Louisiana. Justin served as a survey technician and was responsible for imaging the piers, processing collected data, revised AutoCAD work, and reviewed deliverables submitted to LADOTD.
07/20 - 08/20	<b>Pointe-a-La-Hache Ferry Landings   Plaquemines Parish, LA.</b> <i>Surveyor.</i> The project consisted of performing a rehabilitation of the Pointe-La-Hache East Bank and West Bank Ferry Landings for the ferry crossing the Mississippi River. The rehabilitation includes the replacement of the existing Ramp Bridge and its substructures and foundations, replacement of the existing Ramp Bridge lift towers, replacement of the existing pile and chain dolphins, and all associate roadway tie-ins and site development. As a sub to Modjeski and Masters, Fenstermaker performed sidescan sonar for the hydrographic survey of the ferry landings to support the design of the rehabilitation. Justin performed quality control on the collected sidescan and MS1000 data, processed data, performed a mosaic analysis and processed mosaic files, and prepared deliverables for the client.
01/12 - 05/14	Underwater Acoustic Imaging for Bridge Inspection   Statewide, LA. Field Team Manager. Fenstermaker was contracted to provide Underwater Acoustic Imaging (UAI) services for the underwater bridge inspection of pier systems for 72 state-maintained bridges. The project scope consisted of an underwater acoustic Inspection and evaluation of the submerged components of the piers utilizing a multi-axis, steered beam imaging, and profiling remote sensing system with all acoustic data correlated to a Real Time Kinematic (RTK) GPS positioning system. The purpose of the inspection and evaluation was to identify and locate any major damage or deterioration of the pier structures along with a detailed localized inspection of any observed anomalies using both the acoustic imaging system and dive inspection; and to identify any localized scour impact or erosion of the surrounding water bottom. Justin served as the Field Team Manager responsible for the management of all field resources (personnel and equipment) and the quality and accuracy of all field data collection activities.

Firm Employed By	Civil Design & Construction, Inc.					
Name	Chris Ballard, PLS		Years of Relevant Experien	ce with this Employer	9	125
Title	Survey Manager		Years of Relevant Experien	ce with Other Employer(s)	19	ALC NO
Degree(s) / Years / S	Specialization	BS / 2004 / Biological Sc	ience			
Active Registration	Number / State / Expiration Date	PLS: 0005033 / LA / 9/30	)/26			
Year Registered	2010		Discipline	Professional Land Surveyor		
Contract Role(s) / B	rief Description of Responsibilities	Field Surveying and Rem	note Sensing / Responsible for	survey tasks in support of CTP.		
	ensive background in providing topograph eans and methods of collecting data as we				He has o	overseen projects
12/23 - 05/23	H.012618 LA 347 Drainage Improvement traditional means and methods and 3D and 2D LADOTD Location and Survey Standard	Scanning were used to coll				
02/23 - 12/23	H.012027.5 - I-20 UPPR   Louisiana. S methods and 3D Scanning were used to and survey of the Union Pacific Railroad	collect topographic data for	or this interstate and overpass	improvement project. This project	ct also inc	luded coordinate
09/18 - 01/20	H.004100 I-10: LA 415 to Essen Lane the portion of I-10 in West Baton Rouge of the project along LA 415, including we 415 as well as scanning every 500' for c	Parish beginning at the sta ork on Tributaries of the Int	art of the project limits to a poir ercoastal Canal. This work incl	nt just before the approach of the luded using 3D Scanning for the	I-10 Brid	ge and the limits
04/17 - 07/17	H.010006.5-3 LA 58 Petit Caillou Bridg included a complete topographic survey of its repairs/replacement. Project includ hydrographic surveying.	, utility coordination, chann	el cross sections, and the scar	nning of the existing vertical lift b	ridge for tl	he design
02/19 - 09/19	Bridge Replacements   East Feliciana Police Jury. It includes the replacement These projects are being funded thru FE	of 2 bridges which were da	amaged from flooding and the r	epairs to many rural roadways the	nroughout	
01/17 - 12/17	East Baton Rouge Parish Bridge   East location. These included bridges over D				ing the ch	nannel at each
10/16 - 11/16	H.012728.5 LA 443: Tangi River Bridg review & processing of the survey data, depths, all drainage, all building informa Additional information regarding the rive utilize data collection of the failed bridge Due to the nature of the project being an 3 weeks.	verification, and review of tion including finish floor el r was located by traditiona e, 3D Terrestrial Scanning v	final submittal. CD&C complete evations, and all super/substru I means upstream and downstr vas incorporated in conjunctior	ed a topographic survey which in icture of the bridge over the Tang ream for the engineer's design o n with traditional means to compl	cluded all gipahoa R f the new ete the top	l utilities with liver. bridge. To pographic survey.
09/17 - 09/17	H.012650.5-1 District 62 Bridges   Livito all of the existing data for the bridge a included bridges over the US 190 Bridge 51 over Ponchatoula Creek. Several of	ind roadway at each site, e e over Gray's creek, 2 bridg	each channel was cross-section ges on LA 442 both crossing E	ned both upstream and downstre ast Hog Branch, LA 1063 over th	am of the	bridge. These

Firm Employed By	Halff Associates, Inc.					N/ACTION
Name	Samuel Amoako-Atta, GISP, CFM		Years of Relevant Experier	nce with this Employer	20	Me W
Title	GIS Team Leader		Years of Relevant Experier	nce with Other Employer(s)	5	
Degree(s) / Years / Specialization       MS / 2005 / Computer Set         BS / 2000 / Geomatic En		cience and Geographic Inform Igineering	ation Systems			
Active Registration	Number / State / Expiration Date	GISP: 57065 / US / 4/25/	/26. CFM: 1132-07N / TX / 12/	31/25.		
Year Registered	GISP: 2007; CFM: 2007	Discipline GIS Professional; Certified Floodplain Manager			anager	
Contract Role(s) / B	Brief Description of Responsibilities	Floodplain Mapping and	FIRMs / Lead Regulatory Proc	ducts to develop DFIRMs and su	pporting do	ocumentation

Bio: Sam specializes in Geographic Information Systems (GIS) integration and regulatory mapping for FEMA Risk MAP projects. As Halff's Floodplain Mapping Lead, he supports the development of DFIRM databases, FIRM panels, and geospatial datasets in compliance with FEMA's Data Capture Standards (DCS). His expertise spans GeoDatabase design, GPS and GIS integration, and spatial data modeling tailored to floodplain studies and mapping workflows.

Sam has a deep understanding of FEMA's guidelines and specifications related to floodplain mapping and flood risk products, and provides technical leadership across multiple CTP and PTS projects in FEMA Region VI. He has also developed and taught GIS-based training courses focused on DFIRM production, Risk MAP product interpretation, and BLE data use as decision-support tools for floodplain managers and local officials.

03/15 - Ongoing	<ul> <li>FEMA Risk MAP PTS A&amp;E Contract - Compass JV   FEMA Region VI. <i>GIS Program Lead</i>. Responsible for leading all GIS-related efforts across Halff's FEMA Region VI portfolio, including floodplain mapping, BLE product development, and DFIRM database generation. Sam has overseen the production of all 1D and 2D BLE flood risk datasets completed by Halff under the Compass contract. He developed internal delivery processes and data standards that were later adopted into FEMA Region VI's official BLE guidance documentation.</li> <li>Sam also leads the development of flood risk databases and mapping products for all Flood Risk Identification projects, ensuring consistency with FEMA's Data Capture Standards (DCS) and regional QA protocols. He performs final quality control reviews prior to product submission, supporting defensibility and regulatory acceptance.</li> <li>In addition to BLE and Flood Risk Identification work, Sam manages all Physical Map Revision (PMR) efforts delivered by Halff. His responsibilities include DFIRM database development, Preliminary DFIRM panel creation, and oversight of all post-preliminary due process tasks such as CCO meetings, appeals resolution, Federal Register coordination, and final map submission. Sam played a key role in the coordination and release of a multi-county PMR in North Texas, partnering with FEMA Region VI over a two-year period to consolidate and advance outstanding CTP study areas. His leadership and technical expertise help Compass deliver consistent, high-quality geospatial products that support FEMA's mission across the region.</li> </ul>
11/12 - Ongoing	<b>FEMA Region VI CTP Risk MAP Projects - NCTCOG   North Central Texas.</b> <i>GIS Lead.</i> Responsible for the Discovery efforts in six HUC-8 watersheds. Led the development of web tools to collect community information and assist in the planning of Discovery meetings. Prepared CNMS database and status validation and Discovery watershed reports. Also responsible for base map data acquisition, field surveys, terrain data development and creation. Directed floodplain mapping and deliverable efforts and compliance with FEMA Data Capture Standards. Created FEMA floodplain regulatory and flood risk products including DFIRM database, flood depth and analysis grids, Changes Since Last FIRM, HAZUS multi-hazard loss estimations, areas of mitigation interest, flood risk database, flood Risk MAP and flood risk report.
01/12 - 12/17	FEMA Region VI CTP Risk MAP Projects - TWDB   TX. GIS Lead. Responsible for assisting in production of detailed H&H for more than 130 miles of stream in the San Bernard watershed. Performed FEMA DCS tasks, including Discovery, base map acquisition, field surveys, terrain development, develop hydrology, hydraulics and floodplain mapping. Performed FEMA Risk MAP regulatory products tasks including the creation of the DFIRM database, revised DFIRM panels and FIS report. Performed FEMA Risk MAP non-regulatory tasks including the changes since last FIRM, flood depth and analysis grids, HAZUS analysis, flood risk database, flood Risk MAP and flood risk report.

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Firm Employed By	Halff Associates, Inc.					
Name	Alison Hanson, CFM		Years of Relevant Experie	nce with this Employer	8	
Title	Project Manager		Years of Relevant Experie	nce with Other Employer(s)	2	
		MS / 2017 / Geography BS / 2015 / Biology & Bio	MS / 2017 / Geography BS / 2015 / Biology & Bioenvironmental Science			
Active Registration	Number / State / Expiration Date	CFM: 3459-18N / TX / 12/31/21.				
Year Registered	2018		Discipline	GIS Analyst		
Contract Role(s) / E	rief Description of Responsibilities	RiskMAP Products / Geo	ospatial Compliance & Data In	tegration		

Bio: Alison serves as the Risk MAP Products Lead for Halff's FEMA Region VI PTS and CTP contracts, where she manages the development and delivery of key regulatory and non-regulatory datasets. Her responsibilities include the production of depth grids, Changes Since Last FIRM (CSLF), Flood Risk Products (FRPs), and geospatial databases that support BLE, PMR, and CTP studies across Louisiana and the broader Region VI area.

She is highly proficient in FEMA's Mapping Information Platform (MIP) and Citrix environment, with deep knowledge of Data Capture Standards (DCS), Risk MAP workflows, and CNMS update processes. Alison's ability to verify data accuracy, technical completeness, and workflow compliance makes her a critical asset in preparing submittals that are defensible, approvable, and aligned with FEMA expectations.

05/17 - 06/19	FEMA Risk MAP PTS A&E Contract - Compass JV   FEMA Region VI. RiskMAP Products Lead/GIS Technical Lead. Responsible for leading the floodplain mapping and BFE delineation strategies for 1D/2D BLE studies across multiple HUC-8 watersheds in northern Louisiana, including the Tensas, Lower Ouachita, Upper Calcasieu, and Lower Red. Her work includes the development of comprehensive flood risk databases, HAZUS analyses, and CNMS updates in full compliance with evolving FEMA Region VI BLE delivery guidance.
	In addition to BLE support, Alison has served as GIS Technical Lead and Project Manager for complex Physical Map Revision (PMR) efforts, including projects in Waller and Washington Counties, the San Bernard Watershed, Llano County, and Tarrant County, Texas. Her responsibilities span the full PMR lifecycle—from DFIRM database development and Preliminary map creation to leading post-preliminary activities such as Community Coordination Officer (CCO) meetings, appeal resolution, Federal Register coordination, and final map production. These projects involved extensive interagency coordination and public outreach to gain local acceptance of updated floodplain data.
	Alison also manages MIP submittals and project closeout activities, ensuring that Risk MAP deliverables are uploaded, validated, and tracked against FEMA's schedule and earned value (EV) performance requirements. Her deep familiarity with FEMA's technical systems, data standards, and stakeholder communication protocols helps achieve smooth execution of complex mapping projects from inception through finalization.
06/16 - 08/18	<b>FEMA Region VI CTP Risk MAP Projects   North Central Texas.</b> <i>GIS Technical Lead.</i> Responsible for preparing outreach materials for communities summarizing current flooding risks. Identified community needs through website submissions, drafted exhibits and final Flood Risk Report. Compiled the Flood Risk database within the East Fork Trinity Watershed. Managed project and conducted outreach to communities. FY15 - GIS Technical Lead responsible for developing meeting materials for community outreach by determining BLE changes and drafting outreach materials for the Discovery meetings. Analysis of community needs identified in the meetings, drafted exhibits, wrote the final flood risk report and compiled the flood risk database within the Cedar Creek Watershed. Managed all GIS deliverables through the MIP.
01/12 - Ongoing	TWDB Cooperating Technical Partners (CTP) Floodplain Mapping Program   Statewide, TX. GIS Lead. Responsible for development of floodplain mapping datasets and non-regulatory flood risk products in coordination with FEMA Region VI. Her responsibilities include processing and refining floodplain boundaries from 1D and 2D BLE model outputs, creating compliant geospatial databases, and ensuring deliverables meet FEMA's Data Capture Standards (DCS).
	In addition to regulatory mapping, Alison oversees the generation of non-regulatory datasets including HAZUS-based loss estimates and changes since last FIRM (CSLF) analyses. She also leads the update and submission of Coordinated Needs Management Strategy (CNMS) data for TWDB projects, supporting FEMA's effort to track the validity and completeness of flood risk datasets across Texas. Her expertise in MIP workflows and FEMA geospatial standards helps make sure that TWDB's deliverables are approvable, accurate, and aligned with both state and federal program goals.

Firm Employed By	Halff Associates, Inc.					
Name	Katy Overbey, CFM		Years of Relevant Experier	nce with this Employer	8	(25)
Title	Project Manager		Years of Relevant Experier	nce with Other Employer(s)	1	
			Information System ources & Environmental Studie	S		
Active Registration	Number / State / Expiration Date	CFM: 3362-17N / TX / 12	2/31/25.			
Year Registered	2017		Discipline	Certified Floodplain Manager		
MIP / Citrix / Responsible				/I project enrollment and workfl , data accuracy, and compliance		

Bio: Katy is a Certified Floodplain Manager and GIS Professional who leads FEMA system integration and project coordination through Halff's Region VI Risk MAP and CTP programs. She currently manages the FEMA Region VI Regional Support Center (RSC), where she oversees enrollment of new projects into the Mapping Information Platform (MIP), coordinates Citrix-based workflows, and supports FEMA's portfolio review and performance tracking processes.

Katy serves as a Senior GIS Analyst for all phases of the Risk MAP program—including Discovery, Base Level Engineering (BLE), Flood Risk Identification, and Physical Map Revisions (PMRs). Her expertise in FEMA's Data Capture Standards (DCS) and MIP system helps to achieve timely and accurate project validation. She plays a critical role in ensuring project data integrity, delivering regulatory and non-regulatory products, and supporting LADOTD and FEMA Region VI in the execution of defensible, approvable flood risk mapping deliverables.

01/19 - Ongoing	<ul> <li>FEMA Risk MAP PTS A&amp;E Contract - Compass JV   FEMA Region VI. RSC Lead and Project Manager. Responsible for leading the FEMA Region VI Regional Support Center (RSC), a team of subject matter experts who provide on-call technical and programmatic support to FEMA Region VI. The RSC supports FEMA's Mapping Information Platform (MIP), Coordinated Needs Management Strategy (CNMS), and other internal systems; delivers rapid response and data coordination during disaster events; and assists in the development and delivery of training and technical guidance. As RSC Lead, Katy manages FEMA communications, SME coordination, and maintains responsive, high-quality support across the Region VI portfolio.</li> <li>In addition to her leadership role at the RSC, Katy manages the development of the flood risk database for 1D/2D BLE studies throughout FEMA Region VI, including the Tensas, Lower Ouachita, Upper Calcasieu, and Lower Red HUC-8 watersheds in northern Louisiana. Her work includes the creation of depth grids, elevation grids, HAZUS outputs, and CNMS updates in accordance with FEMA's Data Capture Standards (DCS).</li> <li>Katy has also led key Flood Risk Identification and PMR efforts. She served as Lead GIS Analyst for the East Fork Trinity River Levee project, supporting FEMA Region IV in defining and communicating flood risk behind non-accredited levee systems in Dallas County, Texas. She also managed the Dallas County, TX PMR, including DFIRM database development, Preliminary DFIRM panels, and all post-preliminary due process tasks. This effort, which incorporated ten years of CTP and levee studies, was delivered in coordination with the City of Dallas, NCTCOG, and FEMA Region VI, earning exceptional ratings for Quality, Cost Control, Management, and Regulatory Compliance. Her community-focused engagement strategy offers a scalable model for successful outreach across CTP and LADOTD projects.</li> </ul>
01/19 - 08/20	FEMA Region VI CTP Risk MAP Projects - NCTCOG   North Central Texas. <i>GIS Lead.</i> Responsible for base map data acquisition, field surveys, terrain data development, and creation of TINs and DEMs. Created deliverables according to FEMA Data Capture Standards. Created Technical Support Data Notebook (TSDN) reports. Delivered FEMA floodplain regulatory products including DFIRM database. Developed FEMA Risk MAP non-regulatory products including Flood Depth and Analysis Grids, Changes Since Last FIRM, HAZUS multi-hazard loss estimations, Areas of Mitigation Interest, Flood Risk Database, Flood Risk MAP, Flood Risk Report, and metadata.
10/19 - 06/20	FEMA Region VI CTP Risk MAP Projects   Dallas, TX. GIS Lead. Responsible for creating deliverables according to FEMA Data Capture Standards for regulatory and non-regulatory products including Flood Depth and Analysis Grids, Changes Since Last FIRM, Areas of Mitigation, Flood Risk Database, Flood Risk MAP, Flood Risk Report and metadata. Performed FEMA DCS tasks including Base Map Acquisition, Field Surveys, Terrain Development, Develop Hydrology, Hydraulics and Floodplain Mapping.

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Firm Employed By	Halff Associates, Inc.					
Name	Tim Saksa		Years of Relevant Experien	nce with this Employer	3	6
Title	GIS Lead		Years of Relevant Experien	nce with Other Employer(s)	18	
Degree(s) / Years / Specialization E		BA / 2004 / Geography				
Active Registration	Number / State / Expiration Date	N/A				
Year Registered	N/A		Discipline	GIS Professional		
Contract Role(s) / B	rief Description of Responsibilities	CNMS Lead / Responsib	le for overseeing CNMS updat	tes and GIS support for all LADO	OTD projects	6

Bio: Tim Saksa is a senior GIS analyst supporting FEMA Region VI and LADOTD with over 18 years of geospatial experience. He currently leads GIS integration for all active projects under the LADOTD CTP contract, where he supports Discovery, BLE, CNMS updates, and regulatory product development. Tim's expertise includes FEMA's Data Capture Standards (DCS), mapping status workflows, and status-of-study GIS tools.

His contributions include preparing CNMS updates, supporting community Discovery coordination, and delivering mapping datasets that reflect both technical validity and local feedback. Tim's ability to align FEMA workflows with LADOTD's statewide mapping efforts helps make sure the agency's deliverables are defensible, compliant, and ready for upload to the MIP.

LADOTD CTP & NFIP Statewide Program Support   Statewide, LA. Senior GIS Analyst. Responsible for overseeing geospatial coordination across all active task orders. His responsibilities span the preparation and QA of BLE mapping layers, DFIRM datasets, Discovery deliverables, and CNMS updates. Tim works closely with modeling and mapping leads to develop FEMA-compliant spatial data that supports floodplain delineations and mapping product consistency. He also supports LADOTD's mapping status efforts through CNMS integration—updating flood study validity, identifying unmapped areas, and maintaining status-of-study databases in alignment with FEMA Region VI standards. His role bridges technical modeling with FEMA's data delivery workflows, ensuring LADOTD's projects stay accurate, timely, and aligned with FEMA system requirements.
FEMA Risk MAP PTS A&E Contract - Compass JV   FEMA Region VI. GIS Specialist. Responsible for leading the geospatial production efforts for Base Level Engineering (BLE) modeling throughout the state of Louisiana. His work has included terrain processing, cross-section validation, BLE floodplain delineation, CNMS alignment, and database QA/QC. Tim is responsible for ensuring that GIS datasets meet FEMA's Data Capture Standards (DCS) and Region VI delivery expectations across all BLE and Discovery studies he supports.
In addition to his GIS leadership, Tim now serves as the Project Manager for two active 2D BLE studies in northern Louisiana. In this role, he oversees task execution, coordinates modeling and mapping team input, manages data QA/QC, and verifies delivery of FEMA-compliant Risk MAP products. He has also been responsible for various FEMA Physical Map Revision (PMR) projects, terrain development, and Base Flood Elevation (BFE) determinations for over 1,000 structures in Louisiana. Tim has provided on-call support for the Regional Service Center (RSC), supported Letters of Map Change (LOMC) investigations, facilitated the publication of FEMA Region VI Preliminary DFIRM data and non-regulatory Risk MAP products (e.g., vector depth grids), and contributed to CNMS database updates and status-of-study GIS viewers. His contributions also include supporting post-preliminary production tasks, appeals resolution, LAMP planning, levee tracking, congressional correspondence, model-backed Zone A analyses, and rapid response requests during major storm events. His experience with CNMS, MIP workflows, and FEMA's mapping systems has made him a key resource in bridging technical production with contract performance and regulatory approval.
Rapides Area Transportation Resiliency Project   Rapides Parish, LA. <i>GIS Specialist.</i> Responsible for planning, design, and survey services for the Transportation Resiliency through Storm Water Mitigation in A/P MPO UZA project. The purpose of this project is to integrate stormwater mitigation/ flood prevention into land use and transportation planning. Halff developed detailed 2D RAS models to accurately depict fluvial and pluvial flood risks inside the MPA. These enhanced models include improved NOAA Atlas 14 precipitation inflows, updated 2018 LiDAR topography, field-surveyed structure data, NLCD 2019 land use data, and SSURGO soils data.
Louisiana Watershed Initiative Round 2 Hydrology & Hydraulics Design Support   Rapides Parish, LA. GIS Specialist. Responsible for providing GIS support on this project to deliver detailed hydrology and hydraulics design support for five separate projects that were funded through the LWI Round 2 project selection and funding program. Preliminary scope documents show the potential for flood mitigation benefits from channel, structure, storage, and pump station improvements within residential areas of four small communities in central Louisiana.

#### Firm Employed By Louisiana State University Agricultural Center (LSU AgCenter) Carol Friedland, PhD, PE, CFM Years of Relevant Experience with this Employer 3 Name Title Director and Professor Years of Relevant Experience with Other Employer(s) 20 PhD / 2009 / Civil Engineering MS / 2006 / Civil Engineering Degree(s) / Years / Specialization BS / 1998 / Civil Engineering Active Registration Number / State / Expiration Date PE: 10094 / WY / 12/31/26; CFM: US-12-06337/ US / 7/31/26 Year Registered PE: 2003; CFM: 2012 Professional Engineer, Civil; Certified Floodplain Manager Discipline Ordinance and Compliance / Responsible for designing and delivering floodplain ordinance training, developing Contract Role(s) / Brief Description of Responsibilities regulatory updates, and supporting FEMA Tiered State Framework compliance.

Bio: Carol Friedland leads the design and implementation of applied research and extension initiatives focused on resilient, sustainable, and healthy housing at the LaHouse Research and Education Center, where she serves as Director and Professor of Biological and Agricultural Engineering at the LSU AgCenter. Carol co-leads the development of decision-support tools and risk communication resources to inform policy and planning, while engaging in collaborative outreach to improve building performance and reduce disaster-related losses.

05/24 - Ongoing       Advancing Integrative Systems Based Approaches to Risk and Resilience: The Louisiana Social, Environmental, and Economic Resilience (LA-SEER) Center   LA. Principal Investigator. Lead the development of integrative, multi-hazard risk modeling tools and resilience planning strategies.         05/24 - Ongoing       Advancing Integrative Systems Based Approaches to Risk and Resilience: The Louisiana Social, Environmental, and Economic Resilience (LA-SEER) Center   LA. Principal Investigator. Lead the development of integrative, multi-hazard risk modeling tools and resilience planning strategies.         05/24 - Ongoing       Responsible for coordinating risk quantification and equity-based resilience assessments, building on prior work from the Louisiana State Hazard Mitigation Plan and FloodSafeHome. Oversee the integration of hazard exposure, insurance, and economic valuation data to support statewide and community-scale decision-making. Facilitate stakeholder engagement with state agencies and local partners, guide co-produced tool development, and collaborate across disciplines to produce actionable policies and tools that address Louisiana's insurability crisis and advance environmental justice.         05/23 - Ongoing       2024 Louisiana State Hazard Mitigation Plan Update: Natural Hazard Risk Assessment for Louisiana   Statewide, LA. Principal Investigator. Lead the statewide natural hazard risk assessment in support of FEMA's State Mitigation Planning Policy. Oversee hazard profiling, probabilistic hazard modeling and vulnerability analysis for state-owned assets and jurisdictions, including the estimation of potential economic losses. Coordinate the development of a publicy accessible webmapping portal and direct the design and implementation of a statewide educational outreach campaign. Veriy alignment with FEMA Elements S3 through S7, HHP		
07/24 - Ongoing       Principal Investigator. Lead technical assistance efforts supporting the Louisiana Department of Transportation and Development (DOTD) in fulfilling NFIP requirements under FEMA's Tiered State Framework. Responsible for designing and delivering floodplain management training, developing advanced courses and webinars, and leading regulatory updates to model ordinances. Oversee equity and climate resilience integration in coordination with academic and agency partners. Guide development of future-conditions datasets and planning tools to enhance local and state capacity for mitigating flood risks under evolving climate conditions.         05/24 - Ongoing       Advancing Integrative Systems Based Approaches to Risk and Resilience: The Louisiana Social, Environmental, and Economic Resilience (LA-SEER) Center   LA. Principal Investigator. Lead the development of integrative, multi-hazard risk modeling nor nor work from the Louisiana State Hazard Mitigation Plan and FloodSafeHome. Oversee the integration of hazard exposure, insurance, and economic valuation data to support statewide and community-scale decision-making. Facilitate stakeholder engagement with state agencies and local partners, guide co-produced tool development, and collaborate across disciplines to produce actionable policies and tools that address Louisiana's insurability crisis and advance environmental justice.         05/23 - Ongoing       2024 Louisiana State Hazard Mitigation Plan Update: Natural Hazard Risk Assessment for Louisiana [Statewide, LA. Principal Investigator. Lead the statewide natural hazard risk assessment in support of FEMA's State Mitigation Planing Policy. Oversee hazard profiling, probabilistic hazard modeling and vulnerability analysis for state-owned assets and jurisdictions, including the estimation of potential economic losses. Coordinate the development of a publicy accessible webmapping port	10/24 - Ongoing	an interactive, use-inspired flood mitigation sandbox tool to support decision-making under future climate conditions. Oversee the integration of flood science, population projections, and ordinance cost modeling to evaluate flood risk metrics and simulate the community-scale benefits of elevation policies. Responsible for ensuring stakeholder-centered co-production and evaluation, including coordination with advisory boards, local governments, and underserved communities. Guide project dissemination and the development of training materials, ensuring broad access to the tool and reproducible
05/24 - Ongoing       (LA-SEER) Center   LA. Principal Investigator. Lead the development of integrative, multi-hazard risk modeling tools and resilience planning strategies. Responsible for coordinating risk quantification and equity-based resilience assessments, building on prior work from the Louisiana State Hazard Mitigation Plan and FloodSafeHome. Oversee the integration of hazard exposure, insurance, and economic valuation data to support statewide and community-scale decision-making. Facilitate stakeholder engagement with state agencies and local partners, guide co-produced tool development, and collaborate across disciplines to produce actionable policies and tools that address Louisiana's insurability crisis and advance environmental justice.         05/23 - Ongoing       2024 Louisiana State Hazard Mitigation Plan Update: Natural Hazard Risk Assessment for Louisiana   Statewide, LA. Principal Investigator. Lead the statewide natural hazard risk assessment in support of FEMA's State Mitigation Planning Policy. Oversee hazard profiling. probabilistic hazard modeling and vulnerability analysis for state-owned assets and jurisdictions, including the estimation of potential economic losses. Coordinate the development of a publicly accessible webmapping portal and direct the design and implementation of a statewide educational outreach campaign. Verify alignment with FEMA Elements S3 through S7, HHPD2, and FMAG1, and provide technical support and stakeholder engagement in collaboration with GOHSEP.         07/22 - Ongoing       Developing Engineering Practices for Ecosystem Design Solutions (DEEDS): Calibrating Ecosystem Services to Advance Performance of Natura associated with nature-based infrastructure designs using engineering tools such as HAZUS and FEMA's FAST model. Responsible for simulating storm surgicate economic benefits through Average Annual Loss (AAL) reduction. Collaborate in the cal	07/24 - Ongoing	Principal Investigator. Lead technical assistance efforts supporting the Louisiana Department of Transportation and Development (DOTD) in fulfilling NFIP requirements under FEMA's Tiered State Framework. Responsible for designing and delivering floodplain management training, developing advanced courses and webinars, and leading regulatory updates to model ordinances. Oversee equity and climate resilience integration in coordination with academic and agency partners. Guide development of future-conditions datasets and planning tools to enhance local and state capacity for mitigating flood risks
05/23 - Ongoingthe statewide natural hazard risk assessment in support of FEMA's State Mitigation Planning Policy. Oversee hazard profiling, probabilistic hazard modeling and vulnerability analysis for state-owned assets and jurisdictions, including the estimation of potential economic losses. Coordinate the development of a publicly accessible webmapping portal and direct the design and implementation of a statewide educational outreach campaign. Verify alignment with FEMA Elements S3 through S7, HHPD2, and FMAG1, and provide technical support and stakeholder engagement in collaboration with GOHSEP.07/22 - OngoingDeveloping Engineering Practices for Ecosystem Design Solutions (DEEDS): Calibrating Ecosystem Services to Advance Performance of Natura 	05/24 - Ongoing	(LA-SEER) Center   LA. Principal Investigator. Lead the development of integrative, multi-hazard risk modeling tools and resilience planning strategies. Responsible for coordinating risk quantification and equity-based resilience assessments, building on prior work from the Louisiana State Hazard Mitigation Plan and FloodSafeHome. Oversee the integration of hazard exposure, insurance, and economic valuation data to support statewide and community-scale decision-making. Facilitate stakeholder engagement with state agencies and local partners, guide co-produced tool development, and collaborate across
07/22 - Ongoing Infrastructure in Military Operations   Regional (Gulf of Mexico). Co-principal Investigator. Lead the quantification of flood risk reduction and co-benefits associated with nature-based infrastructure designs using engineering tools such as HAZUS and FEMA's FAST model. Responsible for simulating storm surge and wave reductions from mangrove ecosystem structures and evaluating the economic benefits through Average Annual Loss (AAL) reduction. Collaborate in the calibration of the FORMAN and NUMAN models to quantify biophysical and economic impacts of ecosystem design and contribute to the	05/23 - Ongoing	the statewide natural hazard risk assessment in support of FEMA's State Mitigation Planning Policy. Oversee hazard profiling, probabilistic hazard modeling, and vulnerability analysis for state-owned assets and jurisdictions, including the estimation of potential economic losses. Coordinate the development of a publicly accessible webmapping portal and direct the design and implementation of a statewide educational outreach campaign. Verify alignment with FEMA
	07/22 - Ongoing	

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Firm Employed By	University of New Orleans, Center for Ha	azards Assessment, Respo	onse & Technology (UNO-CHA	ART)	1500
Name	Monica Farris, PhD, CFM		Years of Relevant Experier	nce with this Employer	22
Title	Director and Assistant Professor		Years of Relevant Experier	nce with Other Employer(s)	22
Degree(s) / Years / S	Specialization	PhD / 2003 / Political Sci MA / 1996 / Political Scie BA / 1994 / Political Scie	nce		
Active Registration	Number / State / Expiration Date	CFM: US-09-04077 / LA	/ 7/31/25		
Year Registered	2009		Discipline	Certified Floodplain Manager	
Contract Role(s) / B	rief Description of Responsibilities	Community Rating Syste education and training.	m (CRS) / Responsible for ha	zard mitigation planning and poli	cy as well as CRS
social science hazard multiple methods (e.g professional training a gained expertise in th	nica has directed UNO's Center for Hazard ds research projects focused on hazard m g., workshops, community presentations, c and research experiences for undergradua ne NFIP, the CRS, repetitive loss, mitigatio ' Groups made up of over twenty commun	itigation. She has co-devel curriculum development, et ate/graduate students acro n planning, hazard policy,	oped and implemented educa c.) targeting various stakeholo ss multiple academic disciplin	tion and outreach related to natu lers. Dr. Farris has also co-mana es. Through her work with UNO-	ral hazards utilizing ged hazards mitigation CHART, Dr. Farris has
2012 - Ongoing	CRS Users Group   LA. Principal Invest communities, provides incentives for cor CRS Users Groups include local officials meetings for two such groups in Louisian CHART led the development of multijuris	nmunities to go beyond the and serve as support and na: one in the Lake Pontch	e minimum floodplain manage an educational resource for le artrain area (FLOAT) and one	ment regulations established by ocal CRS communities. UNO-CH in the Baton Rouge area (CRAF	the NFIP to minimize risk. IART facilitates monthly T). As part of this effort,
05/23 - Ongoing	2024 Louisiana State Hazard Mitigation Plan Update: Natural Hazard Risk Assessment for Louisiana   LA. Principal Investigator. UNO updated and/ or developed material related to the following sections of the Louisiana State Hazard Mitigation Plan: the Planning Process; State Mitigation Capabilities; the Mitigation Strategy; Local Coordination and Capacity Building; and Plan Review, Evaluation, and Implementation. Additionally, CHART will update the current Repetitive Loss Strategy, update the current Community Rating System Strategy, and support education and outreach activities related to the final Plan.				Mitigation Capabilities; , CHART will update the
07/24 - Ongoing	National Flood Insurance Program (N Investigator. Provided support to the Lo State Framework. Provided support in de regulatory updates to model ordinances.	uisiana Department of Trai esigning and delivering floo	nsportation and Development	(DOTD) in fulfilling NFIP requirer	ments under FEMA's Tiered
12/23 - 06/24	NFIP Substantial Damage Plan   Statewide, LA. Principal Investigator. UNO-CHART developed a State Substantial Damage Plan for the National Flood Insurance Program (NFIP). The plan will align with Title 44 CFR § 60.25(b) (3) and § 60.25 (b) (5) which sets forth state duties for guiding communities and individuals to develop in a manner that complies with the local floodplain management ordinance and the NFIP minimum standards. The Plan specifies processes and responsibilities of the State, set timelines, and include templates for communities to use in the event of a flood related disaster.				
02/22 - 08/24	Economic, Social, and Policy Pathwa This project continues previous work to freeboard through interviews, focus grou stakeholders across twenty coastal paris	dentify, evaluate, and addr ips, and education and out	ress stakeholder informed eco treach. Data was collected thro	nomic, social and policy incentive bugh interviews and focus groups	es and barriers to s conducted with multiple
02/20 - 08/22	Incentives and Barriers to Increased I teamed with researchers from LSU in eff implementing/increasing freeboard and	forts to better understand v	what obstacles are preventing	homeowners, homebuilders, and	

Firm Employed By	Louisiana State University Agricultural C	Louisiana State University Agricultural Center (LSU AgCenter)				
Name	Md Adilur Rahim, PhD		Years of Relevant Experier	nce with this Employer	1.5	000
Title	Assistant Professor, Research		Years of Relevant Experier	nce with Other Employer(s)	9.5	18
Degree(s) / Years / S	specialization	PhD / 2023 / Engineering MS / 2022 / Civil Enginee BS / 2014 / Civil Enginee	ering			
Active Registration	Number / State / Expiration Date	N/A				
Year Registered	N/A		Discipline	Flood Risk Modeling, Flood Ins	urance	
Contract Role(s) / B	rief Description of Responsibilities			eveloping risk-informed planning analytics, and affordability strate		
insurance-informed ro on flood insurance af modeling frameworks	a flood risk and disaster resilience researc esilience planning. He currently serves as fordability, nature-based solutions, and cli & (e.g., Risk Rating 2.0, CLARA, ADCIRC, ments and collaborated with CPRA, HUD,	an Assistant Professor Re mate risk communication. Hazus) to support equitab	esearch at the LSU AgCenter, His work integrates advanced le adaptation planning in coas	where he leads federally and stat data science, FEMA flood mappi tal communities. Dr. Rahim has c	e-funded p ng tools, a	nd engineering
05/24 - Present	2029 Coastal Master Plan - Flood Insu of a computational workflow that integra to estimate flood insurance premiums fo Louisiana.	tes NFIP Pricing Approach	(i.e., Risk Rating 2.0) and 202	23 Coastal Master Plan data, per	forming pro	oduction runs
10/24 - Present	Enhancing Flood Insurance Literacy i using FEMA Risk Rating 2.0 data and lo coastal residents and local officials to ex	calized maps. Created visu	ualizations to demonstrate pre	mium changes across mitigation		
10/24 - Present	NSF ReDDDoT Phase 2 - Flood Risk M sandbox tool prototype for simulating the riverine and coastal flood hazard maps,	e effects of structural and r	nonstructural interventions and	ordinances at a property and co	mmunity le	evel. Integrated
07/22 - 06/24	<b>Developing Engineering Practices for</b> Evaluated ecosystem-based flood mitiga data. Contributed to flood risk curve dev engineering design guidance.	ation for the Gulf Coast. As	sessed flood damage reduction	n from mangrove and wetland in	terventions	s using modeled

Firm Employed By	Louisiana State University Agricultural C	Center (LSU AgCenter)					
Name	Rubayet Bin Mostafiz, PhD, CFM		Years of Relevant Experies	nce with this Employer	2.5	100	
Title	Assistant Professor, Research		Years of Relevant Experies	nce with Other Employer(s)	15	184	
Degree(s) / Years / S	specialization	MS / 2017 / Economics MS / 2009 / Geography 8	PhD / 2022 / Oceanography and Coastal Sciences MS / 2017 / Economics MS / 2009 / Geography & Environment BS / 2007 / Geography & Environment				
Active Registration	Number / State / Expiration Date	CFM: US-24-13516 / US	/ 1/31/27				
Year Registered	2024		Discipline	Certified Floodplain Manager			
Contract Role(s) / B	rief Description of Responsibilities	Flood Insurance Policy a improve public understan coastal Louisiana.	nd Literacy / Responsible for ( iding of FEMA's Risk Rating 2	developing educational tools and .0 and support equitable flood in	outreach surance d	strategies to ecision-making in	
against natural hazar decision-making acro	stafiz leads research and extension initiati ds. He develops data-driven tools and we oss Louisiana. Rubayet also designs and i o-production of educational content on dis	b-based platforms to asses mplements benefit-cost fra	ss flood and wind risks, inform meworks to evaluate the perfo	housing mitigation strategies, ar	nd suppor	t equitable	
10/24 - Ongoing	Flood Mitigation Sandbox for Commu design and development of a climate-inf inventory data, ordinance cost-benefit an under future flood scenarios.	formed flood mitigation san	dbox tool that will integrate fur	ture projections of flood risk unde	er climate	change, building	
09/24 - Ongoing	Enhancing Flood Insurance Literacy in Coastal Louisiana: Risk Rating 2.0   LA. Project Co-Principal Investigator. Led the development of educational materials and public outreach strategies to increase understanding of FEMA's Risk Rating 2.0 flood insurance methodology among residents, floodplain managers, and policymakers in coastal Louisiana. Responsible for designing and delivering community-focused workshops and webinars, creating accessible fact sheets on insurance premium attributes, and evaluating stakeholder knowledge through surveys and focus groups. Contributed to workforce development by training professionals on RR2.0 implications, aiming to support equitable, informed decision-making and promote flood resilience in vulnerable coastal regions.				its, floodplain creating uted to workforce		
07/24 - Ongoing	National Flood Insurance Program (N Project Co-Principal Investigator. Suppo delivery of FEMA's L-273 floodplain mar Contributed to community-level risk prior	orted Louisiana DOTD in ful nagement training and supp	filling its responsibilities as the ported the development of virt	e NFIP State Coordinating Agend	y. Contrib	outed to the	
03/24 - Ongoing	FORTIFIED® Elevated Manufactured Homes to Increase Supply of Affordable, Resilient Housing. Project Co-Principal Investigator. Responsible for evaluating cost-effectiveness of FORTIFIED® elevated manufactured housing compared to traditional models. Collaborating with interdisciplinary team and state agencies to inform HUD policy and promote disaster-resilient housing solutions						
1/20 - 08/22	The New First Line of Defense: Buildi the development of an interactive web-b awareness and decision-making for hom cost calculators, implementation of geo	based platform HazardAwar neowners, planners and sta	re (https://www.hazardaware.c akeholders. Responsible for b	org/) that visualizes flood and win	d risk to s	support public	
02/20 - 08/22	Incentives and Barriers to Increased the Flood Safe Home decision-support t residential freeboard in Louisiana.						

Firm Employed By	Louisiana State University Agricultural C	uisiana State University Agricultural Center (LSU AgCenter)				
Name	Pam Lewandowsi		Years of Relevant Experie	nce with this Employer	<1	120
Title	Manager of Training		Years of Relevant Experie	nce with Other Employer(s)	22	
Degree(s) / Years / S	Specialization	MEd / 2007 / Curriculum BS / 2003 / Education	Design and Instruction			
Active Registration	Number / State / Expiration Date	N/A				
Year Registered	N/A		Discipline	Community Outreach		
Contract Role(s) / B	Brief Description of Responsibilities Outreach and Education Coordination / Responsible for designing and delivering certification-aligned training programs, coordinating community engagement events, and supporting workforce development through curriculum and public education initiatives.					

Bio: Pam leads the design, accreditation, and implementation of comprehensive educational programs, utilizing effective curriculum design, assessment development, and evaluation methodologies to enhance workforce development initiatives. She creates and delivers engaging certification training on industry-specific knowledge for diverse audiences. In addition to curriculum development, she initiates and maintains community connections, promotes and delivers community education through youth events and homeowner training, and is a subject matter expert involved with national organizations in their development of certification pathways.

12/24 - Ongoing	LSU AgCenter LaHouse Research and Education Center   Baton Rouge, LA. Manager of Training. Responsible for overseeing the comprehensive operations of all training programs conducted at the LaHouse Resource Center training center, including course scheduling, website maintenance, student attendee coordination and course marketing/promotions to local and national industry organizations. Course developer and instructor of technical trainings for industry professionals and adult consumer audiences. Community engagement liaison responsible for assessing local needs, hosting community events and providing technical expertise to Louisiana residents.
08/22 - 12/24	Louisiana Housing Corporation   LA. Training Center Coordinator. Responsible for developing courses that aligned with national certification guidelines and training accreditation. Role involved scheduling and instructing classes, evaluating the needs of regional weatherization agencies, assessing course success rates and improving the curriculum as needed. Curriculum development included the creation of physical props to aid in instruction, development of learning assessments, and delivery of online instruction. Additionally, I marketed training nationally, wrote grant proposals to assist in providing low-cost training, and guided policymakers on program requirements.
08/03 - 05/22	Various School Districts   LA. Education Specialist and Program Consultant. Developed, instructed and managed curriculum for 12+ content areas, resulting in above-average growth on standardized evaluations. Created tailored lessons for students ranging from ages 8-18 years; including pupils from various backgrounds, learning disabilities and gifted learners; mentored new educators to promote strong and well-rounded teaching staff; managed multiple grant programs and partnered with community stakeholders and local industry professionals to provide sponsorships and new experiences to students. Total experience spans eight schools in East Baton Rouge Parish Schools, Central Community Schools, West Baton Rouge Parish Schools, University View Academy, and Alief Independent School District (2003-2022).

Firm Employed By	Louisiana State University Agricultural C	Center (LSU AgCenter)				
Name	Meggan Franks		Years of Relevant Experien	ice with this Employer	5.5	
Title	Assistant Professor, Extension		Years of Relevant Experien	ice with Other Employer(s)	15	
Degree(s) / Years / S	Specialization	DBA / 2023 / Business A MBA / 2009 / Marketing BS / 2006 / Apparel, Text				
Active Registration	Number / State / Expiration Date	N/A				
Year Registered	N/A		Discipline	Business, Extension Education Community Engagement	, Program	Evaluation and
Contract Role(s) / B	rief Description of Responsibilities	based curricula, and outr		ning and implementing FEMA-alig I and state capacity to manage flu nce across Louisiana.		
effectiveness of Coop resilience for K-12 le	e design and implementation of mixed-me berative Extension programs. She develop arners and adult audiences, while co-ove program evaluation, community-engaged	os and delivers hands-on, e rseeing the collection and a	experiential curricula on energy	efficiency, disaster preparednes	s, and co	mmunity
05/24 - 04/25	Home Energy Resilience Outreach an Fulfilled community-engagement project (70+ adult workshops, 40+ youth STEM Engaged 17,000 direct participants (7,50 140,000 + Louisianans via radio, press,	t metrics that involved the o activities), 13 peer-review 00 + adults; 9,000 + youth)	orchestration of a multi-modal of ed/extension publications and t , connected with 100 + industr	outreach platform that produced training of 22 parish Extension ag y & government stakeholders, ar	110+ educ gents acro id amplifie	ational events oss 25 parishes. d messaging to
05/23 - 07/24	Building Resilience through Engagen Delivered 35 in-person workshops/camp to adopt FORTIFIED® building techniqu (12,189 youth) and an additional 32,968 in flood-protection and 92% accuracy for	os and 60 targeted social-n es. Authored 24 technical online. Designed and rolle	nedia posts to increase commu publications (15 Extension, 9 F	inity awareness about wind-resili ORTIFIED®), reaching 12,526 p	ence, incr articipants	easing intent s face-to-face
09/22 - 09/24	The Drought Irrigation Response Too platform for farmers using gravity irrigati and alerts farmers when irrigation is nee investment. https://dirt.lsuagcenter.com	on systems to assist with in	rrigation scheduling decisions	during the crop season, that pulls	daily wea	ather data
06/22 - 10/24	LSU AgCenter Extension Reporting S evaluation monitoring system designed core mission of community service and plans, track deliverables and maintain d	to help Extension educator education. LERS meets fee	s simplify project reporting and deral and state reporting requir	d data collection requirements, er rements and allows users to deve	nabling mo	ore focus on their
09/19 - 06/22	LSU AgCenter Volunteer & Leadershi with 2,200 members. Developed statewi Research Knowledge Competency (VR practice on 4-H volunteer engagement a	ide and national volunteer <c). 40+="" facilitated="" th="" training<=""><th>training curricula and compete</th><th>ncy-assessment tools including t</th><th>he Nation</th><th>al Volunteer</th></c).>	training curricula and compete	ncy-assessment tools including t	he Nation	al Volunteer

Firm Employed By	Halff Associates, Inc.					
Name	Gini Connolly, AICP, GISP, CFM		Years of Relevant Experi	ence with this Employer	4	00
Title	GIS Director		Years of Relevant Experi	ence with Other Employer(s)	22	
Degree(s) / Years / S	Specialization	MA / 2002 / City and Reg BA / 1998 / French	gional Planning			Concellant 1
Active Registration	Number / State / Expiration Date	AICP: 34526 / 12/31/25;	GISP: 33699 / 3/25/27; CFN	1: 4201-22N / TX / 12/31/25		
Year Registered	AICP: 2022; GISP: 2008; CFM: 2022		Discipline	GIS Professional; Planning; C	ertified Floo	odplain Manager
Contract Role(s) / E	rief Description of Responsibilities		ory, ordinance compliance tra	eading GIS-based web mapping a acking, and public outreach, ensur		

Bio: Gini brings GIS experience to the Information Management team. As the previous GIS Manager for the City of Hurst for 15 years, Gini has a wide variety of local government GIS knowledge specializing in the collection and use of geographic utility data, and the implementation of software applications utilizing geographic data, including asset management and land planning applications.

6/21 - 12/23	Lower Red RFPG State Flood Plan   Bowie County, TX. <i>GIS Specialist</i> . Responsible for coordinating GIS efforts through the state flood planning process. GIS tasks included determining and assembling best available existing conditions, defining future conditions and related regional flood exposures and vulnerability. This involved writing related parts of the Flood plan. Coordinated public input web maps and other public input. This project involved preparing a regional flood plan under the direction of the Region 2 RFPG that contains the elements needed for the state plan. This also included the design and implementation of public involvement activities including conducting public meetings, reviewing and responding to public comments, and developing educational materials on regional flood planning issues for presentation to both technical and non-technical audiences in the region.
07/21 - 08/22	Brazos River Authority Property Master Plan   Palo Pinto County, TX. Task Leader. Responsible for coordinating the requirements and design of the property geodatabase and associated web maps as the first phase of a Property Master Plan. Requirements for a GIS-based property database were gathered to capture and inventory BRA property interests to be used in the subsequent Property Master Plan. The property geodatabase was designed from this input, and review of over 2,000 files including the QA clean-up and creation of over 100 legal descriptions. New key contours were created for the three major reservoirs.
06/21 - 11/22	Upper Brazos Flood Plan   Dickens County, TX. Task Leader. Responsible for supporting GIS efforts through the state flood planning process.
03/22 - 02/25	Town of Northlake GIS Development Map   Northlake, TX. Project Manager. Responsible for the updates and enhancements to the Town's water, sewer and storm asset inventories and geodatabase schemas to enable the location-based asset management software, Cartegraph and new key performance indicators. Halff hosts the Town's asset inventories in an Esri hosted solution web app and corresponding web services. Web services had to be redesigned to accommodate Cartegraph and field data entry. Town staff is now able to efficiently manage their systems of assets in a centralized dashboard understanding costs and ability to prioritize future improvements.
02/24 - 12/24	2023 EPA Lead/Copper Revision Compliance   Carrollton, TX. Project Manager. Responsible for developing a comprehensive service line inventory for approximately 40,000 service line connections for the City of Carrollton. Coupled with appraisal district data from the three corresponding counties for the City and the U.S. Army Corps of Engineers (USACE) National Structure Inventory, Halff was able to determine material for the service lines for all of the utility service lines and a portion of the customer side material inventory through the review of the historical records. An online Customer Materials survey was developed with Esri's Survey123 application and shared through the City website and newsletter to solicit the service line materials from customers. Field survey applications and a web map were developed for City staff to conduct field investigations of the remaining unknown materials, which was summarized into a Field Verifications Plan.

Firm Employed By	Halff Associates, Inc.					
Name	Parker Moore, PE, CFM		Years of Relevant Experier	nce with this Employer	8	135
Title	Water Resources Team Leader		Years of Relevant Experier	nce with Other Employer(s)	1	
Degree(s) / Years /	Specialization	ME / 2016 / Civil Enginee BS / 2015 / Civil Enginee				
Active Registration	Number / State / Expiration Date	PE: 46560 / LA / 9/30/26	; 137516 / TX / 12/31/25. CFM	I: 3460-18N / TX / 12/31/25		
Year Registered	PE: (LA) 2022, (TX) 2020; CFM: 2018		Discipline	Professional Engineer, Civil; C	Certified Flo	odplain Manage
Contract Role(s) / E	Brief Description of Responsibilities	Levee Analysis and Map FEMA Region VI.	ping / Support Risk Identificati	on, Assessment Levee Analysis	and coordi	nation with

Bio: Parker is a Project Manager who has led a variety of projects related to levees and dams, riverine flooding and mitigation, and urban drainage. He is involved with FEMA's Cooperating Technical Partners Risk MAP Program Flood Risk Identification Projects, is a FEMA RSC Levee Lead, and is involved in TWDB State Flood Planning efforts. Parker also serves as the Program Manager for multiple levee districts in the Dallas/Fort Worth area. He has technical expertise in hydrologic and hydraulic modeling software for open and closed systems, including both steady state and two-dimensional modeling.

07/20 - Ongoing	FEMA Risk MAP PTS A&E Contract - Compass JV   FEMA Region VI. Levee Lead. Responsible for administration activities and technical support for all levee systems in FEMA Region VI. Responsible for maintaining all levee data and FEMA Accreditation Status Tracker information in the National Levee Database. Supports Region VI in strategic program planning initiatives to reduce levee related program risk and levee related tasks or projects through Mission Support and Regional Production Services. Coordinates and reviews levee accreditation submittals for completeness checks. Provides levee technical guidance, including LAMP, to FEMA Region VI and Compass study managers/study team. Creates levee related products and responses for FEMA Region VI during Disaster Operations, such as Hurricanes Laura, Marco, Sally, and Delta in 2020.
01/19 - 08/20	Irving Flood Control District Section 1 Levee Accreditation   Irving, TX. Project Manager. Responsible for the FEMA Accreditation submittal package for the Irving Flood Control District Section 1 East and West Levees, which are federally authorized. Halff was retained to oversee the submittal of the accreditation package to verify compliance with 44 CFR 65.10. In 2018, Halff designed rehabilitation plans for the East Cell levee to verify USACE freeboard compliance. Halff evaluated levee freeboard, interior drainage, operations and maintenance procedures, and an emergency action plan. Halff also serves as the District Engineer providing support for all drainage related, operations and maintenance, and on-call support for the levee district to verify the levee and interior drainage systems remain complaint with FEMA standards and reduce flood risk.
10/19 - 06/20	Irving Flood Control District Section 3 Interior Drainage Study   Irving, TX. Project Manager. Responsible for the interior drainage study for the Irving Flood Control District Section 3 levee. Halff was retained to update the interior drainage models which had not been updated since the Plan of Reclamation study in 1978. The interior drainage study consisted of a 1D and 2D HEC-RAS (unsteady) hydraulic model to analyze the interior drainage, sumps, gravity drains, pump station, and levee. The study was conducted in accordance with 44 CFR 65.10 requirements. Halff also serves as the District Engineer providing support for all drainage related, operations and maintenance, and on-call support for the levee district to verify the levee and interior drainage systems remain complaint with FEMA standards and reduce flood risk.
09/19 - 7/20	Kaufman County Levee Improvement District No. 15 Levee Rehabilitation Study   Irving, TX. Project Manager. Responsible for the investigation of a levee rehabilitation study for the Kaufman County Levee Improvement District No. 15 levee system, located southeast of Dallas, TX on the border of Dallas and Kaufman County. The system is currently a non-accredited levee system. Investigation included civil engineering, environmental, structural engineering, and flood risk evaluation in order to bring the levee to a FEMA Accreditation standard as outlined in 44 CFR 65.10. The levee freeboard, alignment, structural condition, and interior drainage system were analyzed for future compliance.

Firm Employed By	Halff Associates, Inc.					AND NO.
Name	Sean Lahav, WEDG		Years of Relevant Experies	nce with this Employer	4	135
Title	Resilience Market Leader		Years of Relevant Experies	nce with Other Employer(s)	5	
Degree(s) / Years / Specialization		MPA / 2019 / Public Administration BA / 2017 / Political Science				
Active Registration	Number / State / Expiration Date	N/A				
Year Registered	N/A		Discipline	Resiliency		
Contract Role(s) / Brief Description of Responsibilities Resilience Subject Matter Expert / Responsible for a planning workshops, and leading vulnerability assest adaptation strategies.						

Bio: Sean Lahav has experience in a variety of resilience, public policy, local government planning, and intergovernmental relations projects in the public sector. He has advised elected officials and local governments on policy matters related to climate and economic resiliency, presented to elected commissions and civic organizations on more than 100 occasions, as well as led partnerships with agencies and organizations at the local, state, and national levels. He previously served as resiliency coordinator for the Northeast Florida Regional Council (NEFRC), where he led regional efforts related to sea level rise, flooding, and COVID-19 economic recovery across the seven-county Northeast Florida region.

·····	
03/23 - 5/24	Sea Level Vulnerability Assessment   Panama City, FL. Resilience Manager. Responsible for conducting a vulnerability assessment pursuant to section 380.093, Florida Statues (F.S.), as well as amend the comprehensive plan to comply with the Peril of Flood Statue. The project aims to provide a comprehensive evaluation of the flood hazards impacting the residents and infrastructure of Panama City.
09/23 - 09/24	<b>Resilient Pasco Project   Pasco County, FL.</b> <i>Resilience Manager.</i> Responsible for this comprehensive initiative focused on establishing priorities for resilience and sustainability, developing a risk and vulnerability assessment, producing a resilience and sustainability action plan, and developing a living shorelines plan. Halff is currently in the process of navigating the project where a dedicated team of resilience professionals are leading the development of a comprehensive inventory of critical and regionally significant assets in support of the vulnerability assessment. Environmental scientists and field surveyors are evaluating options and strategies for integrating nature-based solutions and living shorelines into local sites that are publicly owned and maintained.
03/22 - 06/22	ARPC Regional Vulnerability Assessment   Calhoun, Franklin, Gadsden, Gulf, Jackson, Jefferson, Leon, Liberty and Wakulla Counties, FL. <i>Project Manager.</i> Responsible for leading the ARPC's development of a regional vulnerability assessment for 9 counties and 28 municipalities, including the City of Tallahassee and Leon County. Led a multidisciplinary team of civil and coastal engineers, GIS analysts, and planners to evaluate the vulnerabilities of more than 17,000 critical assets to current and future tidal flooding, storm surge, sea level rise, rainfall, and compound flooding.
07/22 - 04/23	<b>City of Jacksonville Resilience Planning   Jacksonville, FL.</b> <i>Task Leader.</i> Responsible for serving as the Lead External Advisor to Council Members in developing a road map for and facilitating the Special Committee on Resiliency. Designed and wrote the charges for three subject matter expert subcommittees. Wrote policy statement and job description for the hiring of a Chief Resilience Officer. Supported subcommittees in identifying actions steps and authored the Special Committee's Final Report. Recognized with "Certificate of Appreciation" from City Council and "Individual Environmental Achievement Award" by the City of Jacksonville's Environmental Protection Board in 2021.
03/23 - 05/24	Flagler County Vulnerability Assessment   Flagler County, FL. Project Manager and Senior Technical Advisor. Responsible for managing the development of vulnerability assessments and adaptation plans for Flagler County, Pasco County, Panama City, Port Richey, and Fernandina Beach. He is advising local governments on Resilient Florida requirements set forth in Section 380.093, Florida Statutes. Serving as Halff's lead professional for vulnerability assessments in Florida.
01/23 - 04/23	A1A Ocean Island Trails Scenic Byway   Duval County, FL. Project Manager. Responsible for developing an organizational plan to transform the structure, leadership, and purpose of the 501(c)(3) nonprofit organization. Halff guided Byway Executive Leadership through a multi-phased planning process focused on establishing context and reviewing historical accomplishments, conducting a SWOT analysis to identify both limitations and opportunities, developing a stakeholder and partnership inventory to prioritize future collaborations, and develop recommendations to guide the Byway moving forward.

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Firm Employed By	ABCD GIS Mapping, LLC					
Name	Xingwen Chen, Ph.D,		Years of Relevant Experience with this Employer		15	CE -
Title	GIS Team Leader		Years of Relevant Experier	nce with Other Employer(s)	10	1 Anna
Degree(s) / Years / Specialization		PhD / 2000 / Agricultural and Biological Engineering				
Active Registration Number / State / Expiration Date		N/A				
Year Registered	N/A		Discipline	GIS Professional		
Contract Role(s) / Brief Description of Responsibilities		Geospatial Data / Responsible for GIS Database Management and Watershed Flood Map Updates.				

Bio: Dr. Xingwen Chen is a seasoned geospatial scientist and GIS entrepreneur with over 25 years of experience. As President of ABCD GIS Mapping LLC, he leads impactful GIS projects for government and industry clients, including FEMA flood mapping, USEPA environmental modeling, municipal asset management, and precision agriculture. His expertise includes ArcGIS, Remote Sensing & LiDAR, Python automation, and enterprise geodatabase design. Dr. Chen has held roles in academia, federal consulting, and private-sector innovation, and has published pioneering work in photogrammetry and environmental simulation. He earned his Ph.D. in Agricultural and Biological Engineering from Purdue University and is actively involved in community and professional organizations.

04/23 - 07/24	Louisiana DOTD Watersheds Study and Flood Risk Mapping   LA. <i>GIS Specialist.</i> Responsible for stakeholder engagement support for the Louisiana Department of Transportation and Development's (DOTD) National Flood Insurance Program (NFIP) and Cooperating Technical Partnership (CTP) Program project, covering eight key watersheds across Louisiana: Cross Bayou, Middle Red – Coushatta, Bodcau Bayou, Loggy Bayou, Red Chute, Bayou Pierre, Saline Bayou, and Black Lake Bayou. His role involved active participation in Discovery Meetings with Halff Associates, local communities, and other stakeholders, followed by setting up, formatting, and updating the Flood Risk geodatabase and Maps for each individual watersheds in deliverables.
08/14 - 10/21	Stage 1 Environmental Assessment (EA) for the LA 3132 (Inner Loop) Extension, NLCOG   LA. <i>GIS Specialist.</i> Responsible for all aspects of GIS data collection, quality control, management, and spatial analysis of the project. His roles included leading the collection, integration, and management of extensive GIS datasets necessary for informed decision-making and environmental documentation. The scope of his GIS work covered a wide range of spatial data, including jurisdictional boundaries, waterbodies, floodplains, land use and zoning, soils, utility infrastructure (water, sewer, stormwater), traffic data, endangered species habitats, Census demographics, aquifers, digital elevation models (DEMs), fish habitats, forestry, hazardous materials routes, community facilities, levees, oil and gas infrastructure, pipelines, power facilities, schools, and parcel data. Dr. Chen's contributions helped achieve accurate spatial analysis and visualization to support the development of conceptual plans and environmental decisions for the project.
06/16 - 06/18	Water Asset Inventory & GIS Updates   Shreveport, LA. GIS Technical Team Lead. Responsible for conducting field data collection, GIS data updates and integration with legacy GPS & as-built CAD drawing records with sub-centimeter field survey, database structure and workflow validation, and rigorous QA/QC procedures including topology validation, attribution verification, and geometric network optimization, to verify the final database's compliance with City of Shreveport's asset management requirements.

Firm Employed By	Halff Associates, Inc.					
Name	Sam Sarkar, PE		Years of Relevant Experier	nce with this Employer	3	ZER
Title	Senior Project Manager		Years of Relevant Experier	nce with Other Employer(s)	11	
Dedree(s) / Years / Specialization		MS / 2007 / Environmental Engineering and Science BS / 2009 / Civil Engineering				A di
Active Registration Number / State / Expiration Date		PE: 137702 / TX / 3/31/26				
Year Registered	d PE: 2020		Discipline	Professional Engineer, Civil; Numerical Modeling		odeling
Contract Role(s) / E	Brief Description of Responsibilities	Numerical Modeler / Res water resources efforts.	Numerical Modeler / Responsible for numerical and computational modeling in support of watershed planning and water resources efforts.			

Bio: Sam specializes in the development and application of numerical and computational models to create solutions for water resources and water quality issues. He has extensive experience supporting federal, state, and municipal governments in watershed-based planning, stormwater management, flood mitigation planning, TMDL development, BMP implementation and evaluation, and resiliency analysis. Sam is an expert in applying hydrology, hydraulics, and water quality models, including EPA-SWMM, XP-SWMM, SUSTAIN, HEC-HMS, HEC-RAS, SWAT, APEX, HSPF, LSPC, and PRMS.

6/22 - 4/24	Louisiana Water Initiative Region 4 Modeling Contract   LA. Continuous Hydrology Modeling Lead. Responsible for supporting the development of baseline flood models for Region 4 through LWI's effort to reduce flood risk and increase resilience in Louisiana. In addition to detailed event-based HEC-HMS and 2D HEC-RAS models, we have developed continuous hydrology models for the Upper Sabine River to address the value-added objectives of LWI. These continuous hydrology models were developed using HEC-HMS. The HEC-HMS models use hourly precipitation and evapotranspiration developed using publicly available gridded products. They are calibrated against observed daily streamflow data at multiple locations throughout the watershed. Additionally, a Riverware model for the Upper Sabine River was developed to assess the impacts of operations and management of major reservoirs in the watershed on long-term hydrology.
01/22 - 04/22	Trinity Regional Flood Plan   Navarro County, TX. Engineer. Responsible for the for assessment of future conditions for the Trinity RFPG, which covers 17,800 square miles and 15,800 stream miles. The Trinity Regional Flood Plan is a bottom-up approach to flood planning that incorporates local floodplain management and flood mitigation projects to reduce future flood losses. The plan is currently being rolled into the first-ever State Flood Plan. Sam assisted Stephanie in working with the Trinity Regional Flood Plan.
02/24 - 04/25	Lower Rio Grande Valley Flood Study   Cameron County, TX. Lead Engineer. Responsible for the multi-year flood study intended to assist counties and municipalities in determining cost-effective mitigation and abatement strategies that reduce the impact of flooding disasters and increase resiliency. Leading detailed HEC-HMS hydrology and 2D HEC-RAS hydraulic model development for the Lower Rio Grande Valley Region that includes Starr, Hidalgo, Cameron and Willacy counties. Model development includes sensitivity assessment, representation of major hydraulic structures, calibration for historic events and assessment of compound flooding for coastally influenced areas. Modeling follows Standard Operating Procedure developed through a collaborative process with the GLO and USACE.
06/23 - 04/25	iSWM Program   North Central Texas. Project Manager. Responsible for the NCTCOG's iSWM Program to deliver engineering services that provide assistance in promoting the implementation of the iSWM Program to provide related training to local government staff and the private engineering community, and to undertake other related activities.

Firm Employed By	Halff Associates, Inc.					
Name	Matt Stahl, PE, CFM, AWAM		Years of Relevant Experier	ice with this Employer	8	20
Title	Al/Infrastructure Management Team Leader		Years of Relevant Experience with Other Employer(s)		9	
Degree(s) / Years / Specialization       ME / 2011 / Water Resource         MS / 2007 / Public and E       BA / 2001 / Biology						C PA
Active Registration	Number / State / Expiration Date	PE: 123193 / TX / 3/31/2	6			
Year Registered	PE: 2016		Discipline	Professional Engineer, Water R Numerical Modeling	Resources;	
Contract Role(s) / Brief Description of Responsibilities		AI/ML Subject Matter Expert / Responsible for developing predictive models and machine learning tools to automate Substantial Damage Estimates (SDE), integrating LiDAR, imagery, and GIS data to support FEMA- aligned flood risk and post-disaster response programs across Louisiana.				

Bio: Matt is a water resources engineer and Al/infrastructure management team leader with experience in stormwater, water, and wastewater risk assessment and asset management, predictive modeling, GIS and database programming, hydrologic and hydraulic analyses and modeling, and water resources planning. He is proficient in programming languages (Python, R, and SQL), ArcGIS (software, extensions, and Arcpy programming), and industry standard hydrologic and hydraulic modeling software.

05/21 - Ongoing	LADOTD CTP & NFIP Statewide Program Support   Statewide, LA. AI/ML Subject Matter Expert. Responsible for leading the development of the machine learning framework that enabled Louisiana's first Substantial Damage Estimate (SDE) pilot project. His work focused on generating rapid, high-resolution estimates of finished floor elevations (FFE) across multiple parishes using an integrated approach that combined mobile LiDAR, aerial LiDAR, Google Street View imagery, and structure-level geospatial data.
	Matt designed and trained predictive models that approximated building elevation offsets in areas with limited survey data, significantly reducing the time and cost typically associated with SDE deployment. These tools provided LADOTD with a scalable method to estimate flood impacts at the parcel level and evaluate damage thresholds in post-disaster environments. His work laid the technical foundation for broader state-led SDE implementation and demonstrated the value of data science and automation in FEMA-aligned risk and response programs.
10/17 - 2/19	FEMA Region VI Risk MAP PTS A&E Contract - Compass JV   FEMA Region VI. Engineer. Responsible for performing open channel hydraulic modeling in HecGeoRAS and HEC-RAS along various reaches of 69 total miles of the East Fork Trinity River. The goal of the analysis was to establish the existing site conditions, floodplain, and floodway along the river. Applied existing flows from previously developed hydrologic models. The modeled reach included three major highway crossings, various low water crossings, and lateral inflows. Also responsible for helping to maintain the project schedule and participating in client meetings
05/20 - 9/21	<b>Pipe Rehab Program FY20   Ft. Worth, TX.</b> <i>Project Manager.</i> Responsible for performing various pipe assessment and condition services on a task order basis. Achieved the following: 1) formalize an action plan for existing condition assessment data and identification of near term projects; 2) refine the SWM's risk-based prioritization approach and assumptions and updated City's storm drain prioritization using a "mapshed" approach; 3) define goals for level of service (LOS) and key performance indicators (KPI's); 4) determine best approach for condition assessments and prepare an implementation plan; 5) develop process that is data management system and/or GIS-centric for efficient data import, CCTV viewing, and work order generation; 6) perform pilot test of the data flow cycle and prepare web map for tracking progress of inspections, cleaning, and rehab; 7) conduct 2019 assessments of existing infrastructure; and 8) plan for the scale of the PACP program in the future. A key initiative of the City of Fort Worth, Transportation and Public Works Department, Stormwater Management Division (SWM) Master Plan is to develop and implement a Storm Drain Rehabilitation Program. Services include establishment of a strategic, program approach to managing storm drain infrastructure; use of available information to begin correction of known problems in the storm drain system in the near term; and development of a strategic, long term SWM Pipe Assessment and Condition Program (PACP).

Firm Employed By	Halff Associates, Inc.					
Name	Levi Hein, PE, CFM		Years of Relevant Expe	rience with this Employer	19	00
Title	Water Resources Technical Leader		Years of Relevant Expe	rience with Other Employer(s)	0	
Degree(s) / Years / S	Specialization	BS / 2004 / Civil Enginee	ring			1
Active Registration	Number / State / Expiration Date	PE: 109956 / TX / 9/30/2	5. CFM: 1835-10N / TX / 1	2/31/25.		
Year Registered	PE: 2011; CFM: 2010		Discipline	Professional Engineer, Civil; C	Certified Flo	oodplain Manage
Contract Role(s) / E	Brief Description of Responsibilities		essment - Levee Analysis a stency with state and feder	nd Mapping / Lead Risk Identificati al levee standards.	on & Asses	ssment Levee
Bio: Levi is a water resources engineer and a certified floodplain manager, his career has focused on developing and implementing civil works projects within the regulatory floodplain. As Technical Leader in Water Resources, his diverse design experience includes streambank stabilization, stream restoration, levees and dams, flood control channels and detention basins, stormwater designs, site grading, and erosion & sediment control. Levi has performed this work for various federal, state, municipal, and private clients taking projects from studies through construction. Being involved throughout the design development from study, to planning to conceptual to final design through construction completion, allows him to work with each client to develop solutions that solve problems in a cost-effective manner. His additional expertise focuses on the TCEQ's critical infrastructure division Dam Safety Program, with dam safety experience including hydraulic adequacy studies, breach analysis, emergency action plans, and operations and maintenance plans.						
11/24 - Ongoing FEMA National Dam Safety Program   Nationwide. Dam Safety Task Order Manager. Responsible for FEMA Zone 2. The program supports NDSP development and maintenance of program-specific guidance for internal stakeholders to inform external stakeholders on updated policy, tools, and programmatic guidance. The program performs engineering and analysis in support of FEMA Disaster Response and Recovery. The program provides Collaborative Technical Assistance (CTA) to help flood prone communities understand dam risk and consequence.						
	FEMA RiskMAP Standard Operations of program-specific guidance for interna					

of program-specific guidance for internal stakeholders to inform external stakeholders on updated policy, tools, and programmatic guidance. Lead the pilot testing, Training to the State and guidance development for the USACE Dam Risk Screening Tool (DST), for application to FEMAs HHPD Grant Program. Pilot testing included 50 dams in Mississippi, Oklahoma, and South Carolina. Levi coordinated development and trainings for HHPD Project Prioritization Tools and preparing guidance documents for the HHPD approaches and tools.

Matagorda Ring Levee Certification | Matagorda, TX. Technical Advisor. Responsible for oversight and review of the modeling and levee certification. In 2008, Matagorda County retained Halff to assess its levees for certification and accreditation as a result of FEMA's Map Modernization program. Levi worked with the District and the USACE - Galveston District to certify the levee. A comprehensive review and assessment of the existing levee was completed in accordance with 44 CFR 65.10. Engineering investigations and analyses addressed freeboard, closures, embankment protection, embankment and foundation stability, settlement, interior drainage, operation plans, interior drainage plans, and maintenance plans. Halff oversaw construction of the repairs and submitted certification documentation to FEMA in 2014 and addressed review comments. The levee was certified by FEMA in 2016.

Village Creek Levee Repair & Certification | Fort Worth, TX. *Technical Advisor*. Responsible for the Halff study for the City of Fort Worth of two City-owned, non-federal ring levees on the West Fork of the Trinity River to determine if the levees meet the requirements in 44 CFR § 65.10. The study included evaluating the levee freeboard, slope stability, seepage, and operations and maintenance procedures. Halff provided hydraulics and civil services and subcontracted the geotechnical and survey services. Halff prepared the standard operations procedures, preliminary and final reports detailing study findings and Letters of Map Revisions for each levee to remove them from the flood plain on the FIRM maps.

## 17 Firm Experience

Firm Name	Halff Associates, Inc.		Past Performance Evaluation Discipline(s)*		Other (Water Resources)	
Project Name	Louisiana Department of Transportation and Development			Firm Responsibility	Prime	
Project Number	1	Owner's Name	Louisiana Department of Transportation and Development			
Project Location	Statewide, LA		Owner's Project Manager Pamela Lightfoot			
Owner's Address, P	hone, Email	PO Box 94245, Baton Rouge, L	ouisiana 70804, 225.379.120.	0, pam.lightfoot@la.gov		
Services commence	d by this firm (mm/yy)	09/21	Total consultant contract cost (\$1,000s)		\$2,697	
Services completed by this firm (mm/yy) Ongoing		Cost of consultant services provided by this firm (\$1,000s)		\$2,697		
Staff Involved: Brandon Aillet, Jack Young, Shandy Heil, Victor Bivens, Jeanne Hornsby, Tim Saksa, Sam Amoako-Atta, Waqar Fatimah, Matt Stahl						

#### Description

Halff serves as LADOTD's prime contractor for FEMA CTP and NFIP services, **delivering 23 task orders across over 14 watersheds—impacting over half the state.** Our work spans every phase of the Risk MAP lifecycle, including Discovery, BLE, flood risk identification, MIP/CNMS support, outreach, training, ordinance review, and program planning.

#### **RiskMAP Leadership and Innovation**

We lead statewide Discovery (Phase 1) and Flood Risk Assessment (Phase 2) production, providing updated flood risk data to underserved communities and building FEMA's investment roadmap for Louisiana. In Rapides Parish, we delivered Region VI's first BLE enhancement study—a scalable model for transforming BLE into regulatory-quality data. Our web-based Discovery approach, developed in response to COVID, enables community input across 14 watersheds without requiring attendance at Discovery meetings.

#### **FEMA Systems Coordination**

As LADOTD's MIP coordinator, Halff manages the agency's entire FEMA portfolio, maintaining earned value compliance and ensuring funding continuity. We oversee project lifecycle tracking and task enrollment in close coordination with FEMA Region VI. Our team also leads LADOTD's CNMS update efforts, providing validated inputs that support FEMA's study status monitoring and investment decisions.

#### **Technical Solutions and Statewide Impact**

Halff is known for pioneering tools that solve real-world challenges. Our Finished Floor Elevation (FFE) Pilot uses machine learning and remote sensing to estimate structure elevations at scale—helping communities prepare SDE data without costly field inspections. We're also helping LADOTD integrate LWI model data into FEMA mapping strategy, reinforcing the state's leadership in innovation.

#### Training, Outreach, and Capacity Building

We've delivered year-long training curricula, supported ordinance modernization, and represented DOTD at FEMA workshops, EMI, and state/national conferences. Our outreach efforts, both virtual and in-person, have reached all 64 parishes.

#### Strategic Partnerships and Program Recovery

As trusted advisors, Halff works side-by-side with LADOTD staff, helping develop program strategy, avoid pitfalls, and maintain DOTD's reputation as Region VI's CTP leader. When another contractor struggled to deliver on a FEMA-funded task, Halff stepped in to recover the work, preserving FEMA's trust in the program. Our combination of technical depth, statewide presence, and FEMA fluency enables us to deliver unmatched support to LADOTD.

### **Project Relevance**

- » BLE
- » Discovery
- » H&H
- » FIRMs
- » FEMA Risk MAP Products
- » Outreach & Training
- » MIP Support



Firm Name	Halff Associates, Inc.		Past Performance Evaluation Discipline(s)*		Other (Water Resources)	
Project Name	FEMA Risk Map Program - Compass PTS Team			Firm Responsibility		
Project Number	2	Owner's Name	ner's Name Federal Emergency Management Agency (FEMA)			
Project Location	Nationwide		Owner's Project Manager	Ron Wanhanen, PE		
Owner's Address, P	hone, Email	800 N Loop 288, Denton, Texas	76209, 940.383.7334, ronald	d.wanhanen@fema.dhs.gov		
Services commence	ed by this firm (mm/yy)	03/15	Total consultant contract cost (\$1,000s)		\$549,343	
Services completed by this firm (mm/yy) Ongoing		Cost of consultant services provided by this firm (\$1,000s)		\$24,711		
Staff Involved: Bra	Staff Involved: Brandon Aillet, Samuel Amoako-Atta, Wagar Fatimah, Alison Hanson, Levi Hein, Parker Moore, Katy Overbey, Jack Young					

#### Description

Halff is a Joint Venture (JV) partner of the Compass Production and Technical Services (PTS) team for the national, five-year FEMA Risk MAP Program contract in Region VI. Halff supports FEMA Regions IV, VI, and VII by managing Risk MAP projects, providing technical support to FEMA staff, supporting disaster response/recovery, and fielding inquiries from communities and stakeholders throughout Louisiana, Texas, Arkansas, Oklahoma and New Mexico. As part of the contract, Halff oversaw the FEMA Region VI Regional Service Center (RSC) which delivers Risk MAP projects for the Region and supports ad-hoc technical requests.

**Risk MAP Project Delivery.** Halff has acted as the Regional Production Lead for FEMA Region VI since 2015, overseeing all FEMA-funded Risk MAP production, including Base Level Engineering (BLE), PMRs, and DFIRM tasks. This includes 80% of all HUC-8 BLE studies in Louisiana. Halff is responsible for setting scopes, schedules, budgets, and technical standards while coordinating with communities across the region. The firm has delivered every Risk MAP product—CSLF, Hazus, depth grids, and FIRM panels—and has played a central role in defining and upholding Region VI's data quality expectations since the Compass contract began.

**Program Management.** In support of the Regional Risk MAP projects delivered by all Compass partners, Halff lead the effort to enter and track tasks in FEMA's MIP. Halff's knowledge of the MIP, extensive background in earned value and cost and schedule performance (SPI/CPI) tracking allowed us to set our projects up so the portfolio would stay within the FEMA specified tolerances, leading to exceptional reviews by FEMA Region VI.

Impact and Strategic Trust. Since 2015, Halff has been a key partner to FEMA Region VI, guiding regional strategy, risk policy, and investment planning while collaborating with FEMA HQ, USACE, USGS, and state agencies. In Louisiana, Halff manages all BLE production through Compass, aligning federal data with LADOTD priorities to achieve technical consistency and faster access to risk data. With deep regional expertise and programmatic insight, Halff delivers both execution and vision—positioning LADOTD to expand its impact under the NFIP and CTP IDIQ and advancing Louisiana's flood risk management efforts.

System Integration and Technical Leadership. Halff supports MIP workflow alignment, CNMS updates, and tools like the Region VI Status of Studies dashboard to track FEMA project progress. Through the Region VI RSC, Halff coordinates system efforts, manages SME tasks, and handles technical troubleshooting and data compliance.

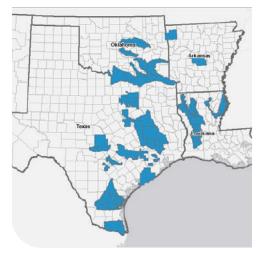
Innovation and Advanced Capabilities. Halff enhances BLE production with automation and custom QC tools that flag issues and guideline violations, helping FEMA and CTPs deliver regulatory-ready data faster and more efficiently.

**Disaster Response and Special Projects.** Since 2015, Halff has supported FEMA in all major Region VI disasters, providing technical support, coordinating field/media response, and developing recovery task orders. After Hurricane Ida, they aided Louisiana's adoption of statewide freeboard standards.

**Training, Outreach, and Capacity Building.** Halff delivers training through FEMA's Brown Bag Series, outreach events, and NP2 sessions, while also maintaining guidance on BLE, inventory reduction, and Risk MAP initiatives.

### Project Relevance

- » BLE
- » H&H
- » LAMP
- » FIRMs
- » FEMA Risk MAP Products
- » Outreach & Training
- » MIP Support



Firm Name	Halff Associates, Inc.		Past Performance Evaluation Discipline(s)*		Other (Water Resources)	
Project Name	FEMA Region VI CTP Risk MAP Projects - TWDB			Firm Responsibility	Prime	
Project Number	3	Owner's Name	Name Texas Water Development Board (TWDB)			
Project Location	Statewide, TX		Owner's Project Manager Manuel Razo, GISP, CFM			
Owner's Address, Ph	ione, Email	P.O. Box 13231, Austin, Texas 7	78711, 512.475.1850, manuel	.razo@twdb.texas.gov		
Services commenced	d by this firm (mm/yy)	01/12	Total consultant contract cost (\$1,000s)		\$2,800	
Services completed by this firm (mm/yy) Ongoing		Cost of consultant services provided by this firm (\$1,000s) \$2,800		\$2,800		
Staff Involved: Jack Young, Alison Hanson						

#### Description

Since 2012, Halff has partnered with the TWDB to deliver all phases of FEMA's Risk MAP program across Texas through the CTP Program. As part of the program, Halff developed a web-based project prioritization tool to identify Texas watersheds with the greatest risk and need for future CTP projects. TWDB has leveraged this tool to expand their program and create a plan to cover the entire state.

**BLE.** Halff has led the technical execution of TWDB's Base Level Engineering (BLE) program since its inception, delivering over 35,000 stream miles of BLE modeling across 34 HUC-8 watersheds. Halff authored the Texas 2D BLE Guidelines, developed the statewide BLE maintenance plan, and continues to perform QA/QC for BLE data delivered by other consultants. Our work has set the standard for 2D BLE modeling and data integration within FEMA Region VI.

**Discovery.** In coordination with TWDB and the Texas Colorado River Floodplain Coalition (TCRFC), Halff conducted Discovery in the San Bernard Watershed in South Texas. The study was the first CTP-led Discovery in Texas and had 100% participation, with local engagement from every community in the watershed.

**Flood Risk Identification.** As a trusted production partner, Halff has delivered watershed-scale studies supporting TWDB and FEMA Region VI flood risk priorities. Our efforts include hydrologic and hydraulic modeling, floodplain mapping, and stakeholder engagement for watersheds such as Plum Creek, Lower Colorado-Cummins, Wilbarger-Alum, and Clear Creek. Many of these studies have incorporated coordination with USACE and other federal partners, addressing complex terrain, flood control infrastructure, and rapidly urbanizing areas.

**Regulatory Products and Due Process.** Following completion of the San Bernard Flood Risk Identification Study, preliminary DFIRMs were produced and released to the communities. Due to the local buy-in and watershed community engagement efforts, the preliminary map appeal period ended in September 2016 with zero documented appeals and protests.

Through the partnership between Halff and the TWDB, the CTP program in the State of Texas has exponentially grown in scope and scale. Our successful approach is rooted in the mutual desire to help our communities be more resilient to flood risk. Our experience in performing all Risk MAP phases under the TWDB CTP will be a tremendous resource to DOTD as your program grows.

### Project Relevance

» BLE

» Discovery

» H&H

- » FIRMs
- » FEMA Risk MAP Products
- » Outreach & Training
- » MIP Support



During the Texas statewide CTP initiative, Halff performed BLE on 6,800 stream miles to accelerate results, reducing flood risk.

Firm Name	Halff Associates, Inc.		Past Performance Evaluation Discipline(s)*		Other (Water Resources)	
Project Name	FEMA Region VI CTP Risk MAP Projects - SARA			Firm Responsibility	Subconsultant	
Project Number	4	Owner's Name San A		San Antonio River Authority (SARA)		
Project Location	San Antonio River Basin – Bexar, Wilson, Karnes, Goliad, Medina and Bandera Counties, Texas		Owner's Project Manager Erin Cavazos, PE, CFM			
Owner's Address, Ph	none, Email	600 E. Euclid Ave, San Antonio,	TX 78283, 210.302.3295, ec	cavazos@sara-tx.org		
Services commenced	d by this firm (mm/yy)	05/11	Total consultant contract cost (\$1,000s)		\$2,000	
Services completed by this firm (mm/yy) Ongoing		Cost of consultant services provided by this firm (\$1,000s)		\$902		
Staff Involved: Kelsey Cayeros, Jack Young						

### Description

Since 2011, Halff has been partnering with SARA to deliver Risk MAP projects as part of their CTP program.

**Discovery.** Halff conducted Discovery meetings along with SARA in the Medina (1,348 sq mi) and Lower San Antonio River (1,483 sq mi) watersheds (2 HUC-8s). Communities were engaged and encouraged to identify flooding issues and ideas to improve flood resilience. Prepared Discovery reports along with Discovery maps and databases showing concerns or problem areas. Halff produced a draft Flood Risk database, report and maps for the Lower San Antonio River watershed.

**Flood Risk Identification.** Following Discovery, Halff led a Flood Risk Identification study of 225 stream miles in the Medina Watershed. The scope included detailed flood study along East Salitrillo Creek and State Hospital Creek, as well as additional detailed and limited detail study for streams in the Medina watershed. Halff successfully collaborated with SARA and teaming partners to produce flood mapping products including limited detail study, detailed study, flood frequency analysis and non-regulatory products, including depth and analysis grids (all events), percent annual chance grids, percent chance of flooding over a 30-year period and areas of mitigation interest.

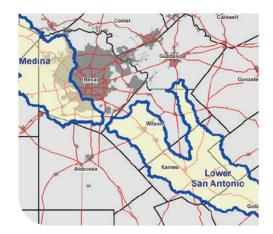
**Program Management.** The Halff Team also performed project management support duties such as Monthly MIP Progress Reports, Quarterly Progress Reports, Quantities and Baseline Schedule (QBS) form preparation, Key Decision Point (KDP) documentation, Special Problems Report/ Change Request (SPR/ CR) and updating FEMA Region VI's Status of Studies (SOS) tool. Halff developed a QAP to achieve model and mapping consistency and compliance with SARA and FEMA guidelines.

**LOMR Review & Processing.** Halff has performed QA/QC on over 40 LOMR/CLOMR submittals and led technical restudies, including the San Antonio River and Catalpa-Pershing Channel. Two FEMA LOMR packages were completed for the Mission Reach and Tributary 9 of Ojo De Agua, successfully approved by FEMA and the City of San Antonio.

**Technical Training and Stakeholder Capacity Building.** Halff has supported the SARA CTP program through targeted technical training for local engineers, floodplain administrators, and municipal staff. These trainings have covered FEMA modeling standards, regulatory submittal processes, Risk MAP product interpretation, and data application for local planning and permitting. By delivering sessions tailored to practitioner needs, Halff has helped build technical fluency across the region—enhancing the ability of local stakeholders to apply FEMA guidance, manage flood risk, and contribute to the success of the NFIP.

### **Project Relevance**

- » Discovery
- » H&H
- » FEMA Risk MAP Products
- » Outreach & Training
- » MIP Suppor



Halff partnered with SARA to perform Discovery across the Region to assess the needs and develop a plan for under-served communities in South Texas.

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Firm Name	Halff Associates, Inc.		Past Performance Evaluation Discipline(s)*		Other (Water Resources)	
Project Name	CRS Support Services			Firm Responsibility	Prime	
Project Number	5	Owner's Name	1) City of Bossier City   2) C	tity of Shreveport   3) Lafayette Co	nsolidated Government	
Project Location	1) Bossier City, LA   2) Shrev	veport, LA   3) Lafayette, LA	Owner's Project Manager	Owner's Project Manager 1) Nathan Rutherford   2) David Smith   3) Clay Boudreaux		
Owner's Address, Ph				utherfordn@bossiercity.org 318.673.6050, david.smith@shrev 1.8468, cpboudreaux@lafayettela.		
Services commenced	d by this firm (mm/yy)	10/2021	Total consultant contract cost (\$1,000s)		\$322	
Services completed by this firm (mm/yy) Ongoing		Cost of consultant services provided by this firm (\$1,000s)		\$322		
Staff Involved: Shandy Heil, Tim Saksa, Brandon Aillet						

#### Description

Halff was contracted by the **City of Bossier City** to analyze their current floodplain management program as it relates to the Federal Emergency Management Agency's (FEMA) Community Rating System (CRS) program and provide recommendations for potential points increases within the different activities. Halff prepared a CRS Advancement Roadmap which defined the suggested activities to move Bossier City from a Class 9 rating to a Class 8. Halff identified short-term and long-term activities and the required effort and funding to move Bossier City to a Class 7 rating by 2027.

Halff was contracted by the **City of Shreveport** to analyze their current floodplain management program as it relates to the Federal Emergency Management Agency's (FEMA) Community Rating System (CRS) program and provide recommendations for potential points increases within the different activities. Halff prepared a CRS Advancement Roadmap which defined the suggested activities to move Shreveport from a Class 8 rating to a Class 7. Halff identified short-term and long-term activities and the required effort and funding, to move Bossier City to a Class 6 rating by 2026.

Lafayette Consolidated Government (LCG) contracted with Halff to provide services to fulfill the requirements of FEMA's Community Rating System (CRS) for Repetitive Loss Area Analysis (RLAA). Halff assisted with or performed in whole all planning steps in accordance with the CRS manual. Before field work began on the RLAA, individual letters were mailed to property owners within the 95 identified repetitive loss areas. A total of 2,283 letters were mailed to repetitive loss properties, historical repetitive loss properties (those with one paid claim against the NFIP), and additional properties added to the repetitive loss areas.

Halff conducted on-site field surveys over multiple days in March 2023 and utilized Halff's custom mobile application tool to create a structure database. In addition, multiple site photos were taken of each structure, and current drainage features and mitigation and floodproofing measures. Halff summarized all findings and recommendations in a RLAA report meeting all FEMA guidelines and provided detailed alternative flood mitigation measures to be utilized for each repetitive loss area. LCG subsequently received all 140 available points towards their CRS score for RLAA.

### **Project Relevance**

- » CRS
- » Standard Operating Procedures for NFIP Program
- » Strategic Planning and Programming
- » Promotion of Higher Standards



Lafayette Consolidated Government aims to minimize property losses by analyzing repetitive loss areas for mitigation alternatives.

Firm Name	C.H. Fenstermaker & Associates, LLC		Past Performance Evaluation Discipline(s)*		Other (Watershed Modeling), Other (General H&H Analysis), Other (Data Management & Mapping), Survey	
Project Name	Calcasieu Parish Regional W	/atershed Modeling and Planning		Firm Responsibility	Prime	
Project Number	6	Owner's Name	Calcasieu Parish Police Jury			
Project Location	Calcasieu Parish, LA		Owner's Project Manager	Terry Frelot, PE		
Owner's Address, Ph	one, Email	1015 Pithon Street, Lake Charle	es, LA 70601, 337.721.3700, 1	tfrelot@calcasieu.gov		
Services commenced by this firm (mm/yy) 04/18		04/18	Total consultant contract cost (\$1,000s)		\$9,900	
Services completed by this firm (mm/yy)		04/24	Cost of consultant services provided by this firm (\$1,000s)		\$7,401	
Staff Involved: Jean	ne Hornsby, Anna Doucet, Jus	tin Bordelon				

#### Description

From 2006 to 2010, Fenstermaker completed seven watershed master plans for Calcasieu Parish Police Jury (CPPJ) that included detailed 1D hydrologic (HEC-HMS) and hydraulic (HEC-RAS) modeling as well as project identification and feasibility. In 2018, Fenstermaker was contracted by Calcasieu Parish Police Jury (CPPJ) to update their existing models by migrating 1D models to coupled 1D/2D HEC-HMS and HEC-RAS models and expand the modeling domain to encompass all the watersheds within the Parish. The model domain includes four HUC 8 watersheds tiered to the HUC-12 level. The goal of the project is to develop an adaptive plan that includes projects, programs, and policies that are being screened utilizing the Deltares Dynamic Adaptive Policy Pathways (DAPP) approach by analyzing various future conditions that account for relative sea level rise, future development, and increased storm intensities. This approach allows the Parish to make informed decisions on managing their watersheds. Fenstermaker's tasks and deliverables included:

- Hydraulic and Hydrological Modeling for 12 watersheds
- ESRI Story Mapping website
- Pre-planning discovery research including stakeholder meetings
- Channel, pond, and hydraulic structure inventory
- Database that inventories parish drainage attributes and data
- Drainage infrastructure watershed report card
- Master plan development
- Drainage project prioritization
- CRS-compliant Standard Operating Procedure document
- Design review & construction of \$15 million in drainage projects

#### Challenge and Solution:

To set criteria for future conditions, we aligned the watershed initiative with key statewide and regional plans like the LA Coastal Master Plan, Southwest Coastal Study, and Lake Area Regional Growth Plans. This approach helped define future scenarios for sea level rise, subsidence, growth, and rainfall, which were then used to screen projects and guide adaptable design, such as planning for expansion of pumping stations along Calcasieu Lake.

### Project Relevance

- » Watershed Planning
- » H&H Analysis
- » Discovery
- » CRS-compliant Standard Operating Procedure documentation

### CALCASIEU PARISH REGIONAL WATERSHED MANAGEMENT PLAN NOVEMBER 2023



Firm Name	C.H. Fenstermaker & Associ	ates, LLC	Past Performance Evaluation	on Discipline(s)*	Other (General H&H Analysis), Other (CLOMR & LOMR), Other (Data Management & Mapping), Other (NFIP No-Rise Review)	
Project Name	Coulee Ile des Cannes Wate	rshed Study and Physical Map Re	evision	Firm Responsibility	Prime	
Project Number	7	Owner's Name	City of Scott			
Project Location	Lafayette Parish, LA		Owner's Project Manager	Jan-Scott Richard		
Owner's Address, Ph	none, Email	125 Lions Club Road, Scott, LA	70583, 337.349.7591, jrichar	rd@cityofscott.org		
Services commence	Services commenced by this firm (mm/yy)		Total consultant constract cost (\$1,000s)		\$129	
Services completed by this firm (mm/yy)		01/19	Cost of consultant services provided by this firm (\$1,000s)		\$129	
Staff Involved: Jear	Staff Involved: Jeanne Hornsby, Anna Doucet					

#### Description

The lle de Cannes Watershed is a large watershed that drains into the Vermillion River. It is in Lafayette, Louisiana and covers 33,500 acres. The watershed includes 39 miles of channels and passes through three parishes. Fenstermaker was contracted through a cooperative agreement between the City of Scott and the Lafayette Consolidated Government (LCG) to develop a hydrologic and hydraulic numerical model to map the FEMA Flood Hazard Areas of the Watershed. Fenstermaker set up an unsteady HEC-RAS model, calibrated and validated it using data collected from two separate storm events, and used the model to determine the 100-year flood extents. This model was used to assess various channel improvement projects along the laterals including channel widening, channel dredging, and regional detention facilities. The final channel section was increased

### Challenge and Solution:

HEC-RAS can overestimate floodways when unsteady modeling is used. To address this, the model was initially calibrated as an unsteady model, then converted to a steady-state model to determine floodways. These encroachments were then reintroduced into the unsteady model, with additional adjustments made particularly around structures.

from 6 ft to a 20 ft bottom width, 2:1 side slope, and 75 ft top width. Upon final design and construction, a letter of Map Revision was submitted to FEMA, changing 11 Flood Insurance Rate Map (FIRM) panels and the Flood Insurance Study (FIS). This project removed approximately 3,400 acres from the FEMA floodplain and approximately 1,175 structures. The project also showed base flood reductions as much as 3.5 feet. The total cost of the project was \$7 million, which was funded by three grant programs: CDBG, HMGP, Transportation and Development. and the Louisiana Department of Fenstermaker received the 2020 2020 American Council of Engineering Companies of Louisiana (ACEC-L) Engineering Excellence Awards' Grand Award for Category A: Studies, Research, and Consulting for this project.

This project produced the largest LOMR approved by FEMA in the United States to date.

### Project Relevance

- » H&H Analysis
- » CLOMR
- » LOMR
- » FIRM

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» FIS





Firm Name	C.H. Fenstermaker & Associ	ates, LLC	Past Performance Evaluation	Past Performance Evaluation Discipline(s)*		
Project Name	Louisiana Watershed Initiativ	e Region 4		Firm Responsibility	Prime	
Project Number	8	Owner's Name	Louisiana Department of Transportation and Development			
Project Location	DeSoto, Sabine, Vernon, Rapides, Beauregard, Allen, Calcasieu, Jefferson Davis, and Cameron Parishes, LA		Owner's Project Manager	Billy Williamson		
Owner's Address, Ph	one, Email	1201 Capitol Access Road, Bate	on Rouge, LA 70802, 225.379	9.3023, billy.williamson@la.gov		
Services commenced	Services commenced by this firm (mm/yy) 04/20		Total consultant contract cost (\$1,000s)		\$13,000	
Services completed by this firm (mm/yy) Ongoing		Ongoing	Cost of consultant services	provided by this firm (\$1,000s)	\$3,263	
Staff Involved: Jean	Staff Involved: Jeanne Hornsby, Anna Doucet, Justin Bordelon					

#### Description

LADOTD selected Fenstermaker to provide engineering, surveying, and consulting services for this unprecedented project that will manage the future flood risk in the State of Louisiana through watershed-based solutions. Fenstermaker oversaw all hydrologic and hydraulic tasks, data collection, model development, and engineering to complete interactive, usable, and manageable hydraulic and hydrologic models. Fenstermaker also performed surveys at structure and channel locations throughout regiuon 4 to support hydrologic and hydraulic modeling. This effort spanned multiple parishes and waterways across watershed regions around the state and used topographic,

#### **Challenge and Solution:**

Getting the appropriate contact information for the various stakeholders within LWI Region 4 was a challenge. To solve this, Fenstermaker created a Stakeholder Survey using ESRI Survey 123 to reach the appropriate personnel and obtain existing conditions data.

bathymetric and laser scanning to provide refined topography for modeling purposes. These models investigated the degree to which communities within a watershed are hydraulically and hydrologically connected. The models will guide decisions regarding land use, policy, and how infrastructure must be coordinated, made, and implemented at the watershed level for the effective management of flood risks. In addition to developing a modeling approach for each watershed, Fenstermaker coordinated with local government officials and stakeholders, performed a data gap analysis, and provided survey services including verifying the existing data, ensuring the data met FEMA standards, and obtaining new data. Scalable HEC-HMS hydrologic and coupled 1D-2D HEC-RAS hydraulic models were developed and can be modified to support the future needs of the State.

Additionally, as a sub-consultant, **Fenstermaker performed surveys at structure and channel locations throughout Region VI.** This effort spanned multiple parishes and waterways across watershed regions around the state and used topographic, bathymetric and laser scanning to provide refined topography for modeling purposes.

### Project Relevance

- » Watershed Modeling
- » H&H Analysis
- » Survey

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Firm Name	Civil Design & Construction, Inc.		Past Performance Evaluation Discipline(s)*		Survey
Project Name	Verot School Road		Firm Responsibility		Sub
Project Number	9	Owner's Name Louisiana Department of Transportation and Development			
Project Location	Lafayette, LA		Owner's Project Manager Thomas Gattle (Huval & Associates)		tes)
Owner's Address, Ph	one, Email	922 W. Point Des Mouton Road	l, Lafayette, LA 70507, 337.234.3798, tgattle@huvalassoc.com		
Services commenced	d by this firm (mm/yy)	08/16	Total consultant contract cost (\$1,000s)		N/A
Services completed by this firm (mm/yy) Ongoing		Cost of consultant services	provided by this firm (\$1,000s)	\$435	
Staff Involved: Christopher Ballard					

#### Description

This project is located in Lafayette Parish between Lafayette Regional Airport and Broussard, LA. The project is for the proposed widening of US 90/I-49 South and realignment of Verot School Road. A topographic survey was performed along the entire proposed route as well as an existing drainage map. This included a complete topographic survey of all utilities with depths, drainage and finished floor elevations of all buildings that fell within the designated survey limits. Also, CD&C was required to coordinate with the topographic survey of the adjacent I-49 Connector project and include required portions of the I-49 Connector project with the survey of this project.

**CD&C's Role.** CD&C performed a complete topographic survey of the project site by using 3D Terrestrial Scanning in conjunction with traditional means to complete the survey. Control was set for the scanning throughout the project limits. Coordination with Cardno, Inc. (Team member) was necessary for the location of all utilities in the project area. CD&C also coordinated with all the property owners for access to the properties and also meet with safety advisors for the industrial business that were impacted. The survey included coordination with the ongoing I-49 Connector project and merging of that survey to the CD&C survey in order to make a complete project for the area. CD&C also researched and compiled an existing right of way linework for the prime consultant to use for exhibits for the project. In order to complete the survey CD&C also had to coordinate with BNSF railroad for access to BNSF's rail.

Project Relevance
» Survey



Firm Name	Louisiana State University Agricultural Center		Past Performance Evaluation Discipline(s)*		Other (Flood Insurance Research to Decision Support)
Project Name	2029 Coastal Master Plan: F	lood Insurance Implications of Fu	ture Scenarios and Projects	Firm Responsibility	Prime
Project Number	10	Owner's Name	Coastal Protection and Res	toration Authority (CPRA)	
Project Location	Baton Rouge, LA		Owner's Project Manager	Eric White	
Owner's Address, Ph	none, Email	150 Terrace Avenue, Baton Rou	ige, LA 70802, 225.342.7308,	eric.white@la.gov	
Services commenced	d by this firm (mm/yy)	05/24	Total consultant contract cost (\$1,000s)		\$319
Services completed by this firm (mm/yy) Ongo		Ongoing (06/25 Anticipated Completion)	Cost of consultant services provided by this firm (\$1,000s)		\$319
Staff Involved: Dr. N	Staff Involved: Dr. Md Adilur Rahim, Dr. Rubayet Bin Mostafiz, Dr. Carol Friedland				

#### Description

This project analyzes how future coastal changes in Louisiana, including restoration projects and levee improvements, will affect flood insurance premiums for homeowners and businesses. The LSU AgCenter team evaluates these future scenarios by integrating FEMA's NFIP Pricing Approach (Risk Rating 2.0) with coastal model projections (2023 Coastal Master Plan outputs) to estimate individual property-level insurance premiums. The calculated premiums are validated using FEMA's NFIP Quote tool.

- Reviewing and incorporating levee improvements using Levee Analysis and Mapping Procedures (LAMP)
- Utilizing FEMA's Risk Rating 2.0 method and data as inputs for estimating premiums
- Validating premium values using NFIP quote tool
- Reviewing local floodplain ordinances related to land use to better understand their influence on insurance premiums and affordability

### **Project Relevance**

- » Flood Insurance Research
- » Scenario Evaluation
- » NFIP Pricing Approach
- » NFIP Quote Tool
- » LAMP
- » Land Use-related Floodplain Ordinance Review

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Firm Name	Louisiana State University Agricultural Center		Past Performance Evaluation Discipline(s)*		Other (Floodplain Management)	
Project Name	DOTD National Flood Insura Support Services Element (C	nce Program (NFIP) Community / AP-SSSE)	Assistance Program-State	Firm Responsibility	Prime	
Project Number	11	Owner's Name	Louisiana Department of Transportation and Development			
Project Location	Baton Rouge, LA		Owner's Project Manager	Pamela Lightfoot		
Owner's Address, Ph	one, Email	PO Box 94245, Baton Rouge, L	ouisiana 70804, 225.379.120	0, pam.lightfoot@la.gov		
Services commenced	d by this firm (mm/yy)	07/24	Total consultant contract cost (\$1,000s)		\$121	
Services completed by this tirm (mm////)		Ongoing (06/29 Anticipated Completion)	Cost of consultant services provided by this firm (\$1,000s)		\$121	
Staff Involved: Dr. C	Staff Involved: Dr. Carol Friedland, Dr. Md Adilur Rahim, Dr. Rubayet Bin Mostafiz					

#### Description

This project supports Louisiana DOTD in fulfilling its responsibilities as the NFIP State Coordinating Agency through the CAP-SSSE program. LSU AgCenter leads tasks aligned with FEMA's Tiered State Framework to improve floodplain management across Louisiana. This includes delivery of FEMA L-273 training, development of advanced virtual training, review and enhancement of model floodplain ordinances, integration of equity into planning, and collection of future climate data to improve community resilience. The project supports FEMA's goals for equitable emergency management and forward-looking risk mitigation, including Justice40 alignment.

### **Project Relevance**

- » NFIP Coordination
- » CAP-SSSE Coordination
- » Floodplain Management
- » Community Training

#### Key Contributions:

- Delivered in-person FEMA L-273 floodplain management course
- Developed and led virtual trainings on advanced floodplain topics
- Collaborated on model ordinance updates and regulatory reviews
- Supported equity evaluations and Justice40 reporting with UNO
- Provided climate projection data and literacy materials to support DOTD resilience strategies

Firm Name	Louisiana State University Agricultural Center		Past Performance Evaluation Discipline(s)*		Other (Multi-Hazard Risk Assessment)
Project Name	Natural Hazard Risk Assessr	nent of Louisiana		Firm Responsibility	Prime
Project Number	12 Owner's Name		Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP)		aredness (GOHSEP)
Project Location	Baton Rouge, LA		Owner's Project Manager	Jeffrey Giering	
Owner's Address, Ph	ione, Email	7667 Independence Boulevard,	, Baton Rouge, LA 70802, 225.932.6300, jeffrey.giering@la.gov		
Services commenced	d by this firm (mm/yy)	05/23	Total consultant contract cost (\$1,000s)		\$1,055
		Ongoing (05/26 Anticipated Completion)	Cost of consultant services provided by this firm (\$1,000s)		\$1,055
Staff Involved: Dr. Carol Friedland, Dr. Rubayet Bin Mostafiz					

#### Description

This project supports the 2024 Louisiana State Hazard Mitigation Plan Update through a comprehensive natural hazard risk assessment. LSU AgCenter leads the profiling and mapping of hazards, the evaluation of future risk probabilities, vulnerability assessments of state assets and jurisdictions, and the estimation of potential economic losses. A major component includes the development and deployment of a public-facing webmapping portal and an educational outreach campaign to communicate risk and promote mitigation actions. The project aligns with FEMA's State Mitigation Planning Policy Guide and addresses all required risk assessment elements (S3–S7, HHPD2, FMAG1).

### **Project Relevance**

- » Hazard Mitigation Planning
- » Vulnerability Assessments
- » Interactive Web Portal

#### Key Contributions:

- Lead statewide natural hazard identification and probabilistic risk analysis
- Estimated losses to state-owned structures using geospatial and HAZUS-based modeling
- Evaluated vulnerability of local jurisdictions and future development trends
- Developed interactive webmapping portal for public access to hazard data
- Coordinated statewide outreach and stakeholder engagement

Firm Name	University of New Orleans, Center for Hazards Assessment, Response & Technology		Past Performance Evaluation Discipline(s)*		Other (CRS)
Project Name	CRS Users Group Facilitation	ı		Firm Responsibility	Prime
Project Number	13 Owner's Name		University of New Orleans, Center for Hazards Assessment, Response & Technology		
Project Location	Multiple Locations, LA		Owner's Project Manager	Monica Farris	
Owner's Address, Ph	none, Email	2000 Lakeshore Drive, New Orl	eans, LA 70148, 504.280.401	6, mateets@uno.edu	
Services commenced	d by this firm (mm/yy)	01/2012	Total consultant contract cost (\$1,000s)		\$200
Services completed by this firm (mm/yy) Ongoing		Cost of consultant services provided by this firm (\$1,000s)		\$200	
Staff Involved: Dr. M	/lonica Farris				

### Description

The Community Rating System (CRS), a voluntary program available to National Flood Insurance Program (NFIP) participating communities, provides incentives for communities to go beyond the minimum floodplain management regulations established by the NFIP to minimize risk. CRS Users Groups include local officials and serve as support and an educational resource for local CRS communities. UNO-CHART facilitates monthly meetings for two such groups in Louisiana: one in the Lake Pontchartrain area (FLOAT) and one in the Baton Rouge area (CRAFT). As part of this effort, CHART led the development of multijurisdictional projects including Programs for Public Information (PPI) for FLOAT and CRAFT. This work has been conducted in coordination with the LaDOTD NFIP Office and Verisk/ISO. CHART has also provided assistance in the implementation of other users groups such as RAIN in the Lafayette area. Various funders of this work include La Sea Grant, La Office of Community Development, and the University of New Orleans.

Project Relevance

» CRS

Firm Name	University of New Orleans, Center for Hazards Assessment, Response & Technology		Past Performance Evaluation Discipline(s)*		Other (Hazard Mitigation Planning and Policy)
Project Name	Development of the Louisiana Substantial Damage Plan			Firm Responsibility	Prime
Project Number	14 Owner's Name		Louisiana Department of Transportation and Development		
Project Location	Baton Rouge, LA		Owner's Project Manager	Susan Veillon	
Owner's Address, Ph	one, Email	4099 Gourrier Avenue, Baton Re	ouge, LA 70808, 225.379.301	17, susan.veillon@la.gov	
Services commenced	d by this firm (mm/yy)	12/18/23	Total consultant contract cost (\$1,000s)		\$15,000
Services completed by this firm (mm/yy) 06/30/24		Cost of consultant services provided by this firm (\$1,000s)		\$15,000	
Staff Involved: Dr. N	lonica Farris				

### Description

In coordination with the DOTD-Floodplain Management Office, UNO developed a State Substantial Damage Plan in accordance with the Tier State Framework aligned with Title 44 CFR § 60.25(b) (3) and § 60.25 (b) (5). The Plan is implementable and operational as it includes details regarding specific processes and responsibilities of state and local entities, timelines, trainings, and recommendations for incorporation into the state hazard mitigation plan.

Project Relevance
» Hazard Mitigation Planning and Policy

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Firm Name	University of New Orleans, Center for Hazards Assessment, Response & Technology		Past Performance Evaluation Discipline(s)*		Other (Hazard Mitigation Planning and Policy)
Project Name	2024 Louisiana State Hazard Mitigation Plan Update			Firm Responsibility	Prime
Project Number	15 Owner's Name		Governor's Office Homeland Security and Emergency Preparedness (GOHSEP)		edness (GOHSEP)
Project Location	Baton Rouge, LA		Owner's Project Manager	Jeffrey Giering	
Owner's Address, Ph	none, Email	7667 Independence Boulevard,	Baton Rouge, LA 70802, 225	5.932.6300, jeffrey.giering@la.gov.	
Services commence	d by this firm (mm/yy)	05/23	Total consultant contract cost (\$1,000s)		\$480
Services completed by this firm (mm/yy)		Ongoing (05/26 Anticipated Completion)	Cost of consultant services provided by this firm (\$1,000s)		\$480
Staff Involved: Dr. N	Monica Farris				

#### Description

This project supports the 2024 Louisiana State Hazard Mitigation Plan Update. Specifically, UNO updated and/or developed material related to the following sections of the Louisiana State Hazard Mitigation Plan Update process: Planning Process; State Mitigation Capabilities; Mitigation Strategy; Local Coordination and Capacity Building; and Plan Review, Evaluation, and Implementation. Additionally, UNO updated the Community Rating System Strategy for the State of Louisiana (found in Appendix of the Plan) and is working to update the current Repetitive Loss Strategy. UNO team members also support education and outreach activities related to the final Plan and is currently in the early phase of the implementation of the CRS Strategy. UNO was also responsible for the editing and graphic design of the final Plan document.

### **Project Relevance**

- » Hazard Mitigation Planning
- » Capacity Building
- » CRS Strategy Updates
- » Community Education and Outreach

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Firm Name	Southern Shores Engineering, LLC		Past Performance Evaluation Discipline(s)*		Other (Coastal Engineering)
Project Name	Lincoln Beach Redevelopment Planning Study and Preliminary		y Design	Firm Responsibility	Sub
Project Number	16 Owner's Name		City of New Orleans (Sub to Sasaki)		
Project Location	New Orleans, LA		Owner's Project Manager	Alex Hill	
Owner's Address, Ph	ione, Email	110 Chauncy Street, Suite 200,	Boston, MA 02111, 720.504.9	9486, ahill@sasaki.com	
Services commenced	d by this firm (mm/yy)	04/24	Total consultant contract cost (\$1,000s)		\$140
Services completed by this firm (mm/yy) Ongoing		Cost of consultant services provided by this firm (\$1,000s)		\$140	
Staff Involved: Whit	ney Thompson				

#### Description

Lincoln Beach is situated along Lake Pontchartrain in New Orleans and was once a vibrant and cherished destination for waterfront recreation. Over time, this historic site experienced prolonged public closure and disinvestment, leaving it underutilized. The City of New Orleans plans to redevelop the site into a resilient waterfront destination. The park redevelopment master plan is currently being finalized, with preliminary design beginning in the coming months. SSE is leading coastal engineering and design, environmental surveying, and permitting. SSE performed environmental surveys and habitat analysis for the 15-acre flood-side tract, as well as the protected-side proposed parking area to facilitate the restoration plan. SSE developed a preliminary permitting plan and is also leading the coastal engineering effort, consisting of a resilient beach restoration design and coastal structures.

### **Project Relevance**

» Resiliency Planning» Environmental Survey and Analysis



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Firm Name	ABCD GIS Mapping, LLC		Past Performance Evaluation Discipline(s)*		Other (GIS)
Project Name	Water Asset Inventory & GIS Updates			Firm Responsibility	Sub
Project Number	17 Owner's Name		City of Shreveport		
Project Location	Shreveport, LA		Owner's Project Manager	Autumn Permenter	
Owner's Address, Phone, Email 505 Travis Street, Shreveport,		505 Travis Street, Shreveport, L	A 71101, 318.673.6062, autu	mn.permenter@shreveportla.gov	
Services commence	d by this firm (mm/yy)	06/16	Total consultant contract cost (\$1,000s)		\$998
Services completed by this firm (mm/yy) 06/18		06/18	Cost of consultant services provided by this firm (\$1,000s)		\$299
Staff Involved: Xind	wen Chen				

#### Description

City of Shreveport awarded Halff and ABCD GIS Mapping a water asset inventory and GIS database update project in 2016. This project involved creating an accurate, up-to-date GIS database for the City's water distribution system by integrating historical GPS data with newly digitized information from as-built plans. Key tasks included rectifying and digitizing plan sheets to develop a comprehensive link-node network of water assets, while leveraging the City's existing 15-year-old GPS data where applicable. The process included comparing above-ground features from rectified drawings with current GIS data to identify discrepancies and missing assets, which were documented for City review. Using sub-centimeter accuracy GPS equipment, field teams collected precise locations for fire hydrants and valves, enabling spatial adjustments to both surface features and connected pipelines. The final phase incorporated rigorous quality control, including topology validation and geometric network development, to ensure data integrity. This modernization effort provided the City of Shreveport with a spatially accurate, fully attributed water system database to support asset management and operational decision-making.

ABCD GIS Mapping was responsible for water asset inventory and GIS data updates of 30 percent of the project area. The water system GIS database development followed a rigorous three-phase approach. First, record drawings were converted to georeferenced TIFF images, then digitized into water lines, valves, fittings, hydrants, and sampling stations with comprehensive attribution including feature types, sizes, invert elevations, and ownership details. The database schema was designed per the City's specifications, incorporating ESRI's local government model, unique Cityworks-compatible asset IDs, and hyperlinks to source PDFs. For field verification, the team compared the initial GIS data with existing records and assessment datasets, then conducted subcentimeter-accuracy GPS surveys to locate missing above-ground assets, documenting each with photographs. A detailed inventory of unlocatable assets was compiled for City review. In the final phase, QA/QC-processed field data was integrated into the GIS, with features spatially adjusted to match verified locations. All supporting documents followed standardized digital archiving protocols, resulting in a precise, operationally-ready water asset GIS database tied directly to source records and field-validated conditions. The project includes the processing of up to 4,500 plan sheets.

Project Relevance » GIS Database Updates » Water Asset Inventory



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Firm Name	ABCD GIS Mapping, LLC		Past Performance Evaluation Discipline(s)*		Other (GIS)
Project Name	Louisiana Department of Transportation and Development Watersheds Study and Flood Risk Mapping Phase 1			Firm Responsibility	Sub
Project Number	18	Owner's Name	Louisiana Department of Transportation and Development		
Project Location	Baton Rouge, LA		Owner's Project Manager	Susan Veillon	
Owner's Address, Ph	none, Email	1201 Capitol Access Road, Bate	on Rouge, LA 70802, 225.379	9.3005, susan.veillon@la.gov	
Services commenced	d by this firm (mm/yy)	04/23	Total consultant contract cost (\$1,000s)		\$5,000
Services completed by this firm (mm/yy) 07/24		Cost of consultant services provided by this firm (\$1,000s)		\$30	
Staff Involved: Xing	wen Chen				

#### Description

In 2021, Halff was awarded the IDIQ contract for National Flood Insurance Program (NFIP) and he Cooperating Technical Partnership (CTP) Program to conduct flood risks analysis for watersheds across the State of Louisiana. Task Order 1 was subsequently issued to conduct flood risk analysis for eight watersheds in FEMA Region VI, including Cross Bayou, Middle Red – Coushatta, Bodcau Bayou, Loggy Bayou, Red Chute, Bayou Pierre, Saline Bayou, and Black Lake Bayou. The project focused on Discovery-level stakeholder engagement, data collection, and preliminary flood risk assessment, and the production of the Flood Risk Maps for each watershed. This foundational phase laid the groundwork for more targeted flood mitigation planning and future phases of FEMA-compliant floodplain mapping

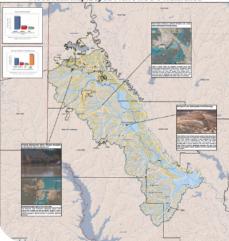
### **Project Relevance**

- » Discovery Meetings
- » Post-Discovery Coordination
- » RiskMAP Products
- » Community Snapshots

#### Key responsibilities include:

- Participating in Discovery Meetings with Halff, local communities, and stakeholders for each watershed
- Attending post-Discovery coordination meetings with Halff to assist in identifying, cataloging, and prioritizing watershed project needs
- Formatting, setting up, and updating Flood Risk Map products throughout the Discovery phase for all eight watersheds
- Assisting Halff in creating Community Snapshot summaries and generating relevant figures for each parish and incorporated area within the project scope





## **18 Approach and Methodology**

Halff is honored for the opportunity to continue supporting LADOTD in achieving the mission of the NFIP through the CAP-SSSE and CTP programs. With over three decades supporting FEMA Region VI and the last five years of focused service to DOTD—**including 23 task orders completed or underway**—Halff has demonstrated our unwavering commitment to improving flood resilience across Louisiana by combining technical precision, policy alignment, and community-centered outreach.

Our work under previous contracts has built a strong foundation of trust, familiarity with Louisiana's flood risk profile, and fluency in FEMA's evolving technical and policy guidance. Unlike firms relying on out-of-state surge teams, Halff has built deep Louisiana-based FEMA Risk MAP capacity from within. Every subconsultant on our team is a Louisiana firm, and the current CTP production is being executed primarily by professionals who live and work in the state. This commitment strengthens local expertise, supports LADOTD's economic development priorities, and helps make sure that institutional knowledge remains rooted in Louisiana.

Halff delivers more than technical expertise —we bring continuity. As FEMA Region VI and DOTD face leadership transitions, our team remains in place, already active on current task orders. With trusted staff, proven processes, and strong relationships, Halff helps to maintain momentum and provides a seamless bridge between past success and future progress.

Our multidisciplinary team—combining local experts, national technical leaders, academic institutions, and trusted subconsultants—is uniquely qualified to meet LADOTD's evolving programmatic needs. Our structured workflow directly aligns with FEMA's Mapping Activity Statement (MAS) and Statement of Priorities (SOP) framework, ensuring comprehensive compliance and streamlined delivery. We recognize this IDIQ as more than technical deliverables—it is an opportunity to strategically shape Louisiana's floodplain management future. Halff is uniquely prepared to support LADOTD's goals today, while positioning Louisiana for continued FEMA recognition, funding opportunities, and long-term program growth.

## Team Spotlight: Brandon Aillet, Victor Bivens and Shandy Heil

Brandon, Victor, and Shandy lead Halff's NFIP and CTP support for LADOTD, bringing deep local expertise and strong relationships across Louisiana. With over 20 task orders delivered without Change Requests, their leadership reflects consistent execution, strategic growth, and alignment with FEMA's evolving priorities—driving flood resilience statewide.



## Community Assistance Program-State Support Services Element (CAP-SSSE)

#### Understanding of Scope and Objectives

This contract encompasses a broad array of services critical to supporting Louisiana's role as both a state NFIP coordinator and a CTP partner. These services include professional support to augment DOTD staff capabilities, targeted NFIP and CTP trainings, navigation of risk data products, and technical activities to support the Risk MAP cycle such as BLE, enhanced H&H analysis, mapping, and regulatory updates.

Our team is passionate about the work we do because, as Louisiana citizens and practitioners, we recognize the unprecedented changes in flood-related policy, programs and data technologies that local communities must embrace to effectively protect their lives and property.



The proposed scope of services is designed to promote responsible floodplain development using best available risk data, support ASCE 24-14 implementation to mitigate the state's insurance challenges, and build local and state capacity to manage NFIP requirements before and after disasters. It also advances CRS participation and makes sure that officials at all experience levels have access to current, practical tools and training to strengthen their floodplain management programs.

### NFIP Compliance and Program Support

Halff provides strategic NFIP compliance support rooted in over a decade of hands-on experience with LADOTD and parishes across Louisiana. **Our team anticipates local needs, builds trust with floodplain administrators, and delivers practical, scalable solutions that reflect Louisiana-specific conditions.** We've supported updates to the Louisiana Floodplain Management Desk Reference and State Model Ordinance, incorporating ASCE 24-14 standards and aligning with FEMA's Tiered State Framework (TSF). Our work helps make sure that ordinance templates, SOPs, and compliance tools are actionable and easy for communities to implement.

### **CAV/CAC Support**

The Halff team will support LADOTD in delivering Community Assistance Visits (CAVs) and Community Assistance Contacts (CACs) through end-to-end assistance—from pre-visit documentation and ordinance review to post-visit recommendations. What sets Halff apart is our ability to support both FEMA's regulatory framework and the local government response. Our experience advising FEMA Region VI's FM&I Branch and working directly with communities allows us to mediate compliance issues, rebuild regulatory trust, and deliver long-term program improvements. Halff helps facilitate resolutions that meet FEMA's requirements while also driving actionable local change—resulting in stronger programs and more resilient communities across Louisiana.

#### **Training and Capacity Building**

Halff has supported LADOTD in delivering NFIP-focused training and capacity-building for over four years, reaching more than 150 stakeholders statewide through virtual sessions, in-person workshops, and interactive demonstrations. These trainings are designed to convert FEMA guidance into clear, actionable knowledge for local officials and floodplain practitioners across Louisiana.

#### Our program focuses on five key areas:

- Flood Damage Prevention Ordinance and Compliance: Training on ordinance enforcement, model regulations, SOPs, and ASCE 24-14 standards—reinforced through tools like the Louisiana Floodplain Management Desk Reference and State Model Ordinance.
- Flood Insurance and Policy Literacy: Instruction on interpreting FFRMS and Risk Rating 2.0, supported by LSU AgCenter and UNO CHART's delivery of seven targeted webinars. These sessions enhance literacy for both community officials and residents.
- Community Rating System (CRS): Workshops and one-on-one support for new and existing CRS communities, including action planning by CRS Series and facilitation of peer collaboration through regional CRS user groups.
- Post-Disaster Code Enforcement: Halff delivers blue-sky and recovery training on PDAs, SDE, and DRRA 1206. Under CAP-SSSE, we partnered with LADOTD to pilot an SDE program using LiDAR and Al/ML, creating a scalable model for post-disaster inspections. Training includes SOPs and recovery guidance developed with LSU's EDEN program to support compliance and readiness.
- Technical Training: Instruction on FEMA Guidelines and Standards, C/LOMR processes, and Base Level Engineering (BLE) designed for planners, engineers, and floodplain administrators—ensuring technical and regulatory consistency across all stakeholder levels.

#### **Outreach and Community Education**

Halff supports LADOTD in advancing public understanding of flood risk and NFIP responsibilities through clear, accessible outreach strategies. We help transform technical FEMA policies into materials and messaging that resonate with community officials, residents, and stakeholders across Louisiana. Our team has developed resilience meeting content, ordinance education tools, and targeted campaigns that promote flood insurance awareness, Risk Rating 2.0 literacy, and proactive participation in local floodplain management. These tools are designed to be easy to implement, visually intuitive, and adaptable to the unique needs of each parish. In this IDIQ, we will expand outreach efforts in coordination with the LSU AgCenter and UNO CHART— creating updated materials focused on federal policy changes, mitigation success stories, and local actions that improve resilience. We also assist communities in developing their own outreach strategies, integrating nonregulatory flood data, and strengthening public engagement around ordinance updates or mitigation plans.



### Team Spotlight: Meggan Franks and Pam Lewandowski - Expanding Capacity Through Academic Partnership

Meggan and Pam bring expertise in adult education, hazard mitigation, and stakeholder engagement. Their experience designing statewide training programs strengthens Halff's ability to reach and equip local officials with the knowledge needed to lead resilient floodplain programs.

#### **TSF Business Planning and Strategic Growth**

Halff helped LADOTD develop the first TSF Business Plan in FEMA Region VI, establishing a foundation for structured growth and increased CAP-SSSE funding. The plan outlined strategic goals, capacity gaps, and actions to strengthen NFIP compliance, enhance technical delivery, and support resilience. **Under this IDIQ, Halff will continue advancing TSF implementation by tracking progress, refining performance measures, and aligning plans, reporting, and staffing with FEMA's expectations.** The Halff team will also scale pilot initiatives from the previous contract—like ordinance frameworks, SOP testing, and education programs—to support statewide application.



#### Advancing the First TSF Plan in Region VI

Halff helped LADOTD pioneer Region VI's first TSF Business Plan—now supporting its implementation through performance tracking, pilot scaling, and targeted funding strategies.

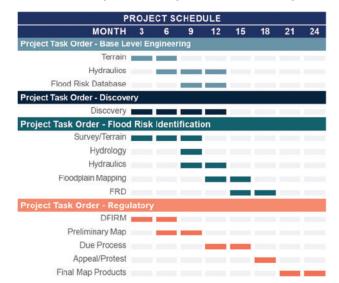
### **Cooperating Technical Partners (CTP)**

Over the past four years, Halff has successfully executed LADOTD's CTP contract, leading Discovery and Flood Risk Identification across multiple watersheds. As the Region VI lead under Compass PTS and the most prolific CTP contractor in the region, Halff has delivered every phase of the Risk MAP lifecycle. This includes support for levee mapping, post-preliminary processing, and outreach product integration across hundreds of task orders. Halff played a crucial role in helping LADOTD secure FEMA special project funding to strategically define and expand its floodplain management capabilities. During significant turnover at FEMA and LADOTD, Halff's institutional knowledge, FEMA fluency, and local technical depth have helped achieve program continuity and momentum. We are not just familiar with the CTP mission—we've helped define and deliver it in Louisiana and across Region VI.

#### Project Management and Coordination

Halff's project management approach is grounded in FEMA's systems and LADOTD's priorities, ensuring structured, accountable delivery. We manage LADOTD's Mapping Information Platform (MIP) entries and FEMA's Earned Value Management (SPI/CPI) reporting, making sure all data, deliverables, and milestones are validated and submitted on time—supporting Louisiana's continued FEMA funding eligibility and performance-based prioritization.

Halff consistently delivers projects faster than any other Region VI CTP. Many task orders are completed a year or more ahead of the FEMA-assigned Period of Performance (PoP), allowing LADOTD to stay ahead of schedule and receive additional funding. Over 20 task orders have been delivered without a single Change Request an uncommon achievement that reflects disciplined scope management and proactive coordination. The sample schedule below reflects Halff's production model: built for speed, structured for compliance, and proven to exceed expectations.



Our program leadership is Louisiana-based, with project managers and task leads who bring deep FEMA and Compass PTS experience. This in-state expertise allows us to respond quickly to policy shifts and integrate CTP delivery with broader LADOTD initiatives like CAP-SSSE and the TSF Business Plan.

#### FEMA Flood Risk Identification Process

Halff's approach to FEMA's Flood Risk Identification Process is built on over three decades of experience delivering every phase of the Risk MAP lifecycle across Region VI. Under LADOTD's current CTP contract, our team has successfully completed multiple Phase 1 (Discovery) and Phase 2 (Flood Risk Identification) efforts, using FEMA-compliant methodologies and custom tools to produce consistent, high-quality deliverables tailored to Louisiana's floodplain management landscape.

#### Phase 0 – Base Level Engineering (BLE)

While BLE has not yet been initiated under LADOTD's CTP contract, Halff has performed BLE for over 40 watersheds in Region VI—including more than 20 in Louisiana under both Compass PTS and other state CTP contracts. Halff was responsible for developing the Region VI BLE Technical Guidance and played a key role in designing the BLE Viewer, which has become a cornerstone tool for nonregulatory flood risk visualization. This regional leadership positions Halff to immediately support BLE expansion for LADOTD when funding is authorized.

#### Phase 1 – Discovery

Halff has led Discovery efforts for over 30 watersheds across Region VI, including 15 in Louisiana, emphasizing local engagement and data integration. Custom web portals developed for each watershed collect and organize stakeholder input, integrated directly into LADOTD's Prioritization Tool. Discovery meetings facilitated by Halff surface actionable local needs, align with LWI priorities, and meet FEMA documentation standards. Tailored data collection websites significantly increased stakeholder participation, improving data quality and decision-making.



Halff was the first contractor to perform BLE-integrated Discovery in Region VI, setting today's standards for data-driven outreach.

#### Phase 2 – Flood Risk Identification

Under LADOTD's CTP contract, Halff addressed the need for updated flood mapping in Rapides Parish, where complex flood risks and unaccredited levees posed major challenges. **Collaborating with state and local partners, Halff secured funding and advanced the first CTP-led BLE study in FEMA Region VI into a Phase 2 enhanced risk study.** The project navigated regulatory hurdles and now serves as a model for strategic investment in high-need areas. Halff's scalable, FEMA-compliant modeling—using new LiDAR and field data—helps establish community-specific accuracy in future deliverables.

#### Phase 3 - Regulatory Updates

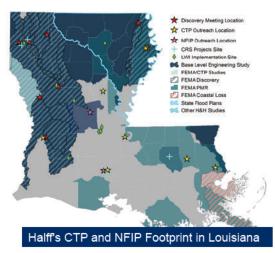
While regulatory updates have not been scoped under LADOTD's current CTP contract, Halff has delivered Preliminary DFIRM and FIS updates for over 25 counties and parishes across Region VI through Compass PTS and CTP projects. Our deep understanding of FEMA's post-preliminary process helps make sure that all Phase 2 products are built to transition seamlessly into regulatory production. Halff also helped develop a statewide business plan aligning future regulatory investments with FEMA Region VI's prioritization strategy and funding cycles..

#### Quality Assurance and Quality Control (QA/QC)

Halff applies a rigorous QA/QC framework to verify that FEMA deliverables meet the highest standards of accuracy and compliance. Our multi-tiered review process includes internal peer review, FEMA Region VI checklist validation, and use of Halff's custom BLE QC Python tool—automating quality checks to reduce review time and improve consistency. Close coordination with FEMA reviewers enables early issue resolution and streamlined approvals.

#### Risk Communication and Stakeholder Outreach

Halff translates complex FEMA data into accessible, locally relevant messaging that supports each Risk MAP phase. We design custom stakeholder portals to increase participation and transparency, allowing communities to interact with BLE and modeling results directly. Our outreach materials—used in Discovery and Resilience meetings—include interactive dashboards, FEMA-aligned fact sheets, and CRS-supportive visuals that equip officials and



residents to better understand and act on flood risk. Halff is prepared to scale these tools statewide to support LADOTD's growing outreach needs.

#### Administrative Support and FEMA Coordination

Halff serves as a strategic advisor to LADOTD's CTP program—supporting both technical delivery and long-term growth. More than task implementers, we help LADOTD interpret FEMA's evolving priorities, refine its strategy, and position the state as a national Risk MAP leader. With 30+ years of Region VI experience, Halff aligned LADOTD's CTP Business Plan with FEMA's Tiered State Framework and secured special funding to develop a statewide flood risk strategy integrating BLE, LWI data, and local needs. Through FEMA transitions, COVID disruptions, and shifting policy, Halff has kept LADOTD's CTP efforts forward-focused, resilient, and responsive.

#### Innovative Technologies and Tools

Halff integrates innovative tools and technologies across every aspect of FEMA Risk MAP delivery—helping LADOTD reduce production timelines, enhance data accuracy, and improve stakeholder access to information. These innovations are not off-the-shelf; they've been built and refined through years of delivering CTP work in Region VI and tailored to LADOTD's specific needs.

Our custom-built data collection portals, used in every Discovery and outreach effort, streamline stakeholder input, reduce duplication, and enhance transparency. These sites are integrated with LADOTD's Prioritization Process, ensuring local knowledge directly informs state-level planning.

In the public realm, Halff enhances communication through interactive dashboards, StoryMaps, and digital outreach kits that explain risk in accessible, visual formats. These tools extend the value of BLE and nonregulatory products far beyond the engineering team—into classrooms, council meetings, and emergency planning offices.

### Why Halff?

Halff is more than a technical consultant—we are a long-term strategic partner embedded in the advancement of Louisiana's flood risk management priorities. For over three decades, we've delivered results across Region VI. For the past four years, we've helped LADOTD build one of the most forward-thinking CTP programs in the nation.

We bring unmatched experience delivering the full Risk MAP lifecycle—more than any other contractor in Region VI. That experience translates into practical strategies, scalable workflows, and intuitive tools that LADOTD uses daily to manage flood risk and advance resilience statewide.

Our team doesn't just understand FEMA policy—we've helped shape it. From authoring the Region VI BLE Technical Guidance to designing the BLE Viewer and BLE QC Python tool, Halff's innovation is built into the very systems FEMA and LADOTD rely on. We've also helped Louisiana secure FEMA special project funding, develop its CTP Business Plan, and adapt to agency transitions during some of the program's most volatile years.

Most importantly, our staff live and work in Louisiana. We are not just vendors we are neighbors, stakeholders, and stewards of Louisiana's long-term resilience. With Halff, LADOTD gains a partner who is prepared, proven, and deeply invested in the future of floodplain management across the state.



#### Shaping Strategy, Not Just Deliverables

From guiding LADOTD through FEMA's shift in funding priorities to aligning statewide BLE priorities with LWI data, Halff continues to serve as the strategic backbone behind Louisiana's evolving CTP program.

## 19 Workload

Firm(s) All firms must be represented in this table	Past Performance Evaluation Discipline(s)	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance
	Other (Water Modeling)	Contract No. 4400020960 Task Order No. 14	FY22 Phase 2 Risk Identification and Assessment - Rapides Parish East	\$80,632
	Other (Water Modeling)	Contract No. 4400020960 Task Order No. 19	FY23 CTP Program Management	\$11,049
	Other (Water Modeling)	Contract No. 4400020960 Task Order No. 20	FY23 Phase 2 Risk Identification and Assessment Rapides Parish Part 2	\$66,900
Holff Associates Inc.	Other (Water Modeling)	Contract No. 4400020960 Task Order No. 21	FY24 PM Scope of Work - CTP Business Plan	\$14,670
Halff Associates, Inc.	Other (Water Modeling)	Contract No. 4400020960 Task Order No. 22	CTP FY24 Region 6 - Roadmap for Leveraging Data Pilot	\$49,482
	Other (Water Modeling)	Contract No. 4400020960 Task Order No. 23	Phase 1 (Discovery) for the FEMA Risk MAP Program	\$54,959
	Other (Water Modeling)	Contract No. 4400017090 Task Order No. 4	Louisiana Watershed Initiative (LWI) Region 4 Modeling Contract	\$262,749
	Road	Contract No. 4400028440 State Project No. H.015477.5	Shreveport Pavement Program (Asphalt Rehabilitation) Caddo and Bossier Parishes	\$131,167
	Road	Contract No. 400005673 State Project No. H.011235.5	I-49 South @ Verot School Road US 90	\$16,514
	Road	Contract No. 4400020291 State Project No. H.012869	LA 182 (UNIV) @ LA 723 (RENAUD) Roundabout LA 182 and LA 723	\$167,950
	Bridge	Contract No. 4400025023 State Project No. H.015513	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 Elenor Road Over Coulee	\$55,550
C.H. Fenstermaker & Associates, L.L.C	Bridge	Contract No. 4400025023 State Project No. H.0155335	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 Puma Road Over Coulee	\$82,800
	Bridge	Contract No. 4400025023 State Project No. H.015516	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 Bieber Road Over Nezpique Bayou	\$1,855
	Bridge	Contract No. 4400025023 State Project No. H.015512	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 Mullins Road Over Tete Bayou	\$57,000

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Firm(s) All firms must be represented in this table	Past Performance Evaluation Discipline(s)	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance
	Bridge	Contract No. 4400025023 State Project No. H.015511	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 E. Martial Ave. Over Coulee	\$27,500
	Bridge	Contract No. 4400025023 State Project No. 015515	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03Andover Road Over Indian Bayou Lateral	\$66,400
	Bridge	Contract No. 4400025023 State Project No. H.015514	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program District 03 Sarah Dee Pkwy. Over Coulee	\$82,000
	Bridge	Contract No. 4400025023 State Project No. H.015505	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 Solid Waste Water Road Over Bayou Boeuf	\$2,500
	Bridge	Contract No. 4400025023 State Project No. H.015510	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 Phillip Street Over Drainage Bayou	\$69,400
	Bridge	Contract No. 4400025023 State Project No. H.015509	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 Huval Street Over True Canal	\$64,900
	Bridge	Contract No. 4400025023 State Project No. H.015508	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 Adam Guidry Road Over Coulee	\$121,400
	Bridge	Contract No. 4400025023 State Project No. H.015507	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 Minos Road Over Coulee	\$68,600
	Bridge	Contract No. 4400025023 State Project No. H.015506	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 Aristide Road Over Coulee	\$70,350
	Bridge	Contract No. 4400025023 State Project No. H.015517	Infrastructure Investment and Jobs Act (IIJA) Off- System Bridge Program District 03 Guegnon Street Over Youngs South Coulee	\$112,300
	Road	Contract No. 4400025625 State Project No. H.014622.2	St. Nazaire Road Ext: LA 96 Corne Road	\$236,481
	Environmental	Contract No. 4400027474	IDIQ Contract for Environmental Permitting and Biological Services Task Order No. 1 MS4 Permitting Support East Baton Rouge Parish District 61	\$2,348

Firm(s) All firms must be represented in this table	Past Performance Evaluation Discipline(s)	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance
	Survey	Contract No. 4400023689 State Project No. H.013622.5	LSRP Ardenwood Dr	\$24,366
Civil Design & Construction, Inc.	Survey	Contract No. 4400027093 State Project No. H.015847.5	US90: LA668 - LA318	\$49,318
	Survey	Contract No. 4400026911 State Project No. H.013718	LA23 - Gretna Blvd.	\$13,600
Louisiana State University Agricultural Center (LSU AgCenter)	N/A	N/A	N/A	N/A
University of New Orleans	Other (CRS/Hazard Mitigation Planning and Policy)	Contract No. AWD-10000347 State Project No. SPSR-00000411	Support for the State NFIP	\$61,972
Center for Hazards Assessment, Response & Technology	Other (CRS/Hazard Mitigation Planning and Policy)	Contract No. AWD-10000276 State Project No. SPSR-00000190	2024 Louisiana State Hazard Mitigation Plan Update	\$121,769
Southern Shores Engineering, LLC	N/A	N/A	N/A	N/A
ABCD GIS Mapping, LLC	N/A	N/A	N/A	N/A

225.925.4704

Fax Numbers 225.032.5317 (Admin. Services) 225.932.5314 (Corporations) 225.932.5318 (UCC)

Status

Active

Additional Offic

NON-SURVIVOR

Date 9/7/2005

City PORT ALLEN

Louisiana Secretary of State

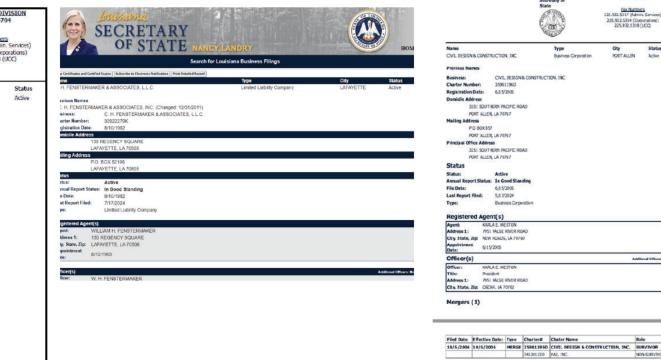
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Type

**Business Corporation** 

## 20 Certifications/Licenses

	State of Louisiana Secretary of State	COMMERCIAL DIVISION 225.925.4704 <u>Fax Numbers</u> 225.932.5317 (Admin. Services) 225.932.5314 (Corporations) 225.932.5318 (UCC)		
Name	Туре	City	Status	
HALFF ASSOCIATES, INC.	Business Corporation (Non-Louisiana)	RICHARDSON	Active	
Previous Names				
Business:	HALFF ASSOCIATES, INC.			
Charter Number:	35788652F			
Registration Date:	10/1/2004			
Domicile Address				
1201 N. BOW	ISER RD.			
RICHARDSON	4, TX 75081			
Mailing Address				
1201 N BOW	SER RD			
RICHARDSON	4, TX 75081			
Principal Business Offi	ce .			
401 MARKET	ST STE 650			
SHREVEPORT	, LA 71101			
<b>Registered Office in Lo</b>	uisiana			
201 RUE BEA	UREGARD, STE. 202			
LAFAYETTE, I				
Principal Business Esta	blishment in Louisiana			
201 RUE BEA	UREGARD, STE 202			
LAFAYETTE, I	A 70508			
Status				
Status:	Active			
Annual Report Status:	In Good Standing			
Qualified:	10/1/2004			
Last Report Filed:	9/1/2024			
Type:	Business Corporation (Non-Louisiana)			



Amendments on File (3) Description

Disclosure of Ownership

City SHREVEPORT

HOMI

Status

Active

nal Officers: No

	Search for	Louisiana Business Filings				
Certificates and Ce	rtified Copies Subscribe to Electronic Notification Print Detailed Record	Туре	City	Status	Buy Certificates and Ce Name	rtified Copies
	RES ENGINEERING, LLC	Limited Liability Company	BATON ROUGE	Active	ABCD GIS MAPP	ING, LLC
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ter Number:	SOUTHERN SHORES ENGINEERING, LLC 43798400K				Charter Number:	40379
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	2251 DRUSILLA LN. SUITE D					700 TEXAS
	BATON ROUGE, LA 70809					SHREVEPO
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	BATON ROUGE, LA 70809				Status	SHREVEPO
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IS:	Active				Annual Report St	
	atus: In Good Standing				File Date:	12/21
Date:	3/2/2020				Last Report Filed	11/21/
Report Filed:					Type:	Limite
:	Limited Liability Company					
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istered Agen	WHITNEY THOMPSON					XINGWEN (
	9456 WESSON ST.					8054 CAPTA SHREVEPO
	BATON ROUGE, LA 70809				Appointment	SHREVEPU
ointment					Date:	12/21/2010
•	3/2/2020					
					Officer(s)	
cer(s)				Additional Officers: No	Officer:	XINGWEN C
	WHITNEY THOMPSON					Member
e	Manager					8054 CAPTA
ress 1:	9456 WESSON ST.				City, State, Zip:	SHREVEPO
. State. Zip:	BATON ROUGE, LA 70809					

Date

4/20/2021

Annual Report St	tatus: In Good Standing	
File Date:	12/21/2010	
Last Report Filed	11/21/2024	
Туре:	Limited Liability Company	
Registered Age	nt(s)	
Agent:	XINGWEN CHEN	
Address 1:	8054 CAPTAIN MARY MILLER DR	
City, State, Zip:	SHREVEPORT, LA 71115	
Appointment Date:	12/21/2010	
Officer(s)		Additio
Officer:	XINGWEN CHEN	
Title:	Member	
Address 1:	8054 CAPTAIN MARY MILLER DR	
City, State, Zip:	SHREVEPORT, LA 71115	

SECRETARY OF STATE

ABCD GIS MAPPING, LLC 40379282K 12/21/2010

700 TEXAS ST., SUITE 201 SHREVEPORT, LA 71101

700 TEXAS ST., SUITE 201 SHREVEPORT, LA 71101

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Amendments on File (1)				1.7
Description				Date
Domestic LLC Agent/Domicile Change				11/8/2020
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Search for Louisiana Business Filings

Type Limited Liability Company

cription

nestic LLC Agent/Domicile Change



## 21 QA/QC Plan

Not requested in this submittal.

## 22 Sub-Consultant Information

Firm Name (Name must match as registered with Louisiana's Secretary of State)	Address	Point of Contact and Email Address	Phone Number
ABCD GIS Mapping, LLC	700 Texas St, Suite 201 Shreveport, LA 71101	Xingwen Chen, Ph.D xingwenchen@gmail.com	318.518.8054
C. H. Fenstermaker & Associates, L.L.C.	135 Regency Square Lafayette, LA 70508	Jeanne Hornsby, PE, CFM jeanne@fenstermaker.com	337.501.4344
Civil Design & Construction, Inc.	PO Box 857 Port Allen, LA 70767	Karla Weston, PE kweston@cdcbr.com	225.765.1802
Louisiana State University Agricultural Center (LSU AgCenter)*	104 J. Norman Efferson Hall Baton Rouge, LA 70803	Wade Baumgartner osp@agcenter.lsu.edu	225.578.6030
Southern Shores Engineering, LLC	2251 Drusilla Lane, Suite D Baton Rouge, LA 70809	Whitney Thompson, PE wthompson@southernshoreseng.com	225.252.5544
University of New Orleans, Center for Hazards Assessment, Response & Technology (UNO-CHART)*	2000 Lakeshore Drive New Orleans, LA 70148	Burt Neal bdneal@uno.edu	504.280.7136

\*As state-funded entities, LSU AgCenter and UNO-CHART are not registered with the Louisiana Secretary of State.



# 23 Location

