

Via Electronic Mail

October 19, 2023



Laura Kleeman  
Coachella Valley Water District  
P.O. Box 1058  
Coachella, CA 92236

**Re: North Cathedral City Regional Stormwater Project - CalOES/FEMA Funding**

Dear Laura:

Coachella Valley Water District (CVWD) is interested in pursuing grants from the California Office of Emergency Supplies (CalOES) / Federal Emergency Management Agency (FEMA) funding programs for the North Cathedral City Regional Stormwater Project (Project). CVWD has requested assistance from Woodard & Curran to continue to position the Project for CalOES/FEMA funding. We are submitting this letter proposal and cost estimate to CVWD to provide the requested support for this Project.

**BACKGROUND**

Woodard & Curran has been tracking FEMA funding opportunities for CVWD stormwater projects as part of ongoing funding tracking and strategy task order. The Hazard Mitigation Grant Program (HMGP), Building Resilient Infrastructure and Communities (BRIC), and Flood Mitigation Assistance (FMA) programs are administered by Cal OES, the designated agency for the State of California for applying for program funding from FEMA. The HMGP, BRIC, and FMA programs are solicited by CalOES and FEMA annually, typically around the same time each year.

- **HMGP- Hazard Mitigation Grant Program:** HMGP provides funding to state, local, tribal, and territorial governments so they can develop hazard mitigation plans and rebuild in a way that reduces, or mitigates, future disaster losses in their communities. This grant funding is available after a presidentially declared disaster. In California's case- Drought and Flooding presidential declarations are what qualify us. The current HMGP funding opportunity is issued pursuant to the Presidential Major Disaster Declaration, DR-4683 (Severe Winter Storms, Flooding, Landslides, and Mudslides).
- **BRIC- Building Resilient Infrastructure and Communities:** The BRIC program guiding principles are supporting communities through capability- and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency. The purpose of BRIC is to Prevent/Mitigate Problems. This program tends to be highly competitive.
- **FMA- Flood Mitigation Assistance:** Funds can be used for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program (NFIP). This program is less competitive than BRIC and the one we would recommend over BRIC for CVWD for this project.

For each of the three funding programs, CalOES reviews NOIs for eligibility and if successful, invites applicants to complete and submit a full project subapplication including a Benefit Cost Analysis (BCA). CalOES reviews all subapplications and submits projects to FEMA in accordance with the State's priorities. Following submission to FEMA, the subapplications are reviewed for eligibility, feasibility, cost-effectiveness, and Environmental and Historic Preservation (EHP) compliance prior to approving and awarding funds by FEMA. Depending on the subapplication type and complexity, the FEMA review process could range from 12-24 months. Subapplicant non-federal (local) cost share must be available at time of subapplication submission and at time of award. The subapplicant must also be ready to implement upon project award.

## **APPROACH**

In preparation for the completion of the BCA and subapplication for the HMGP, CVWD provided Woodard & Curran with models and data available related to the Project. Based on our review of the data, additional hydraulic and hydrologic (H&H) modeling is required prior to completion of the BCA. Given our experience with FEMA on these funding programs, they will require project-specific modeling for four flood profiles. We would not recommend using the existing models and data to prepare a BCA as it would not result in approval by CalOES and/or FEMA.

Our recommended approach consists of preparing for the 2024 HMGP solicitation which could begin around March 2024. We would proceed with data collection (Task 2.1), the H&H modeling (Task 2.2), and complete a test run of the BCA toolkit (a portion of Task 2.3) to see if the benefit:cost (BC) ratio would be greater than one. If the BC ratio is estimated to be less than one, we would stop work and reassess next steps. If it is estimated to be greater than one, then we would continue with full analysis and scope of work.

## **SCOPE OF WORK**

### **Task 1: Project Management and Meetings**

Woodard & Curran will hold one kick off meeting with CVWD to review project goals, scope, and schedule. Woodard & Curran will conduct bi-weekly check-in conference calls during the six-month duration of preparing the BCA (Task 2) and subapplication (Task 3). Following submittal, Woodard & Curran will assist CVWD with response to questions and comments from CalOES for an additional eight months for a total contract duration of 12 months. It is assumed Woodard & Curran will attend up to four conference calls with CalOES and CVWD. Woodard & Curran will conduct internal coordination meetings and manage scope, schedule, and budgets.

#### Task 1 Deliverables:

- Bi-weekly check-in calls with CVWD for four months.
- Up to four calls with CalOES and CVWD.
- Monthly invoices and progress reports.

### **Task 2: Benefit Cost Analysis (BCA) Development**

Woodard & Curran will develop a FEMA compliant BCA using FEMA's BCA Toolkit and guidance. This BCA will be developed to support an HMGP, BRIC, and/or FMA subapplication to fund the

Project. Hydraulic modeling will be needed to assess the proposed project's impacts on structural flooding.

#### Task 2.1 Data Collection

Woodard & Curran will contact appropriate entities to obtain data needed to complete the BCA through the FEMA Toolkit. It is anticipated that the following items will need to be obtained:

1. Riverside County Tax Assessor Full Database for parcels and structures/buildings. Minimum attributes needed:
  - a. Building Type: Residential, commercial, or industrial.
  - b. Building Size: For properties, the Assessor's record of total living area.
  - c. Number of stories: For properties, the Assessor's record of living area.
  - d. Building Replacement Value: For properties, the Assessor's Record market value can be used as an initial value.
  - e. Basement present or not
2. GIS Data
  - a. Building Footprints
  - b. Current Terrain data from USGS
  - c. Current US Census data
  - d. Land Use and Landcover from USGS
3. History of Highway I-10 and railroad damages from CalTrans and UPRR:
  - a. Repair cost for specific flood events
  - b. Flood events that caused road or railroad closures and length of closure
  - c. Average Daily Traffic Estimates
4. Past studies and hydrologic and hydraulic models of the existing and proposed conditions for the region.
5. Cost Estimates of Morongo Wash Channel Improvement, the yearly maintenance cost, and the useful life expectancy of project.
6. Historical structural damage and repair cost for specific flood events, if available.
7. List of Active NFIP Policy Holders impacted by project in a digital database or Excel format. Typically, this is a community or county wide list request from FEMA by community.

The data above is required to conduct the BCA analysis and project success is dependent on outside entities to obtain that data. Woodard & Curran will support efforts to obtain the data but cannot guarantee receipt of data. The scope assumes the data listed in the Data Collection task above will be obtained.

#### Task 2.2 Hydrologic and Hydraulic Modeling

Woodard & Curran will leverage the existing study data (Task 2.1) and models previously provided by CVWD to perform a pre- and post-project analysis for the Project. The 10-, 50-, 100- and 500-year storm event will be analyzed to obtain existing and proposed water surface elevations for flood at building and structure locations impacted by the improvements. The study will be performed using the latest version of HEC-RAS, simulating flow using unsteady 1D and 2D flow, of an upstream hydrograph, performed in accordance with standard

engineering practice. The extent of the study will be based on impact to existing conditions flood levels.

### Task 2.3 BCA Development

Woodard & Curran will use the data collected (Task 2.1) and hydraulic model (Task 2.2) to perform a BCA using the FEMA Toolkit. The hydraulic modeling results from Task 2.2 will be used to assess the structural damage for storm events. Damages will be developed using depth-damage curve included in toolkit.

Toolkit input data will be developed using GIS process to efficiently process the anticipated 3000+ structure for this BCA. Anticipated inputs per structure:

- Assessor Data listed above.
- Lowest Adjacent Grade of terrain.
- First Floor elevation of structure.
- Flood elevation in structure, pre and post for all flood events.
- Quantity of resident displaced.
- Quantity of residents who work.

Assumptions regarding the data may be necessary to complete the toolkit. Assumptions will be based on the Tax Assessor Data, but due to the significant number of building entries some overall assumptions may be necessary. For example, finished floor elevations will be estimated based on the LiDAR data and an assumption of pad heights. Additionally, during completion of the BCA, Woodard & Curran will enter comment sections individually as required within the toolkit. These comments will be standardized for efficiency.

Development of Historical and Professional Expected Damage Assessments for the road (I-10) and railroad are defined by the data provided by agencies. This process is anticipated to be completed by Woodard & Curran working with CVWD and agency staff to develop benefit estimates.

### Task 2.4 BCA Report

Woodard & Curran will document the methodology and results of the BCA in a report, as recommended by CalOES and FEMA, to be submitted as a draft for review. Following review by CVWD, Woodard & Curran will address comments and submit a final report electronically.

### Task 2 Deliverables:

- H&H Model
- BCA using FEMA Toolkit
- Draft and Final BCA Report

### Task 2 Assumptions:

- Any request to work without or substituted data can cause significant increases in cost

and time to perform analysis. As an example, if the Assessor database cannot be provided and the request was made that Woodard & Curran use the online website to mine structure data, the cost of project would escalate by over \$1 million and add at a minimum an additional six months of time.

- Data acquisition is often the most complicated part of a project and can take the longest time. It is assumed Woodard & Curran will lead data collection efforts with support from CVWD to maximize responsiveness of the agencies, the county, and other third-party data sources. Woodard & Curran will take reasonable measures to effectuate a response from other parties, but will not be responsible for delayed, inadequate, or lack of response from other parties.
- The scope of work does not include field investigations (such as, but not limited to, survey of right of-way and property ownership determinations, and geotechnical investigations).
- Scope of work does not include ecological studies required to obtain regulatory permits for implementation of mitigation measures; permitting services (local, state and/or Federal); preliminary and final design services; or detailed engineer's opinion of probable cost.
- CVWD will provide construction cost estimates.
- The purpose of this work is to establish a BCA for the project. Woodard & Curran does not guarantee project grant eligibility.

### **Task 3: NOI and Subapplication**

Woodard & Curran will prepare an NOI using the previously prepared HMGP NOI.

Woodard & Curran will prepare the subapplication which consists of forms and multiple attachments. Woodard & Curran will complete the form and attachments with the use of existing documents. If information is not available in the existing documents, Woodard & Curran will prepare a data request and CVWD will provide the requested information needed to prepare the forms and attachments.

Woodard & Curran will prepare draft attachments to be reviewed by CVWD. Based on comments from CVWD, the application will be finalized and submitted to Cal OES via its online submittal system, Engage Cal OES Portal. Woodard & Curran will:

- Prepare, revise, and update the forms.
- Prepare maps, as needed.
- Coordinate with CalOES and CVWD via email and conference calls (assuming up to two at 60 minutes each).
- Assist in the preparation of presentations and/or informational material for CalOES staff to understand the project and benefits.

CalOES will only submit complete and FEMA credible subapplications for funding consideration. Important subapplication information and the required supporting documentation include:

- **Period of Performance.** In accordance with the FEMA HMGP requirements, the period of performance for all subapplications can be up to 36 months.
- **Cost Share.** Eligible subapplicants will be responsible for covering the required 25% non-federal share (local match). If eligible and selected for Prepare California Match, Cal OES will cover the 25% non-federal share (local match).
- **Benefit-Cost Analysis.** A FEMA credible BCA is required for phased and shovel-ready projects. BCAs are not needed for planning, planning-related, 5% initiative, and project scoping (i.e., Advance Assistance) activities.
- **Environmental and Historic Preservation.** Compliance with all applicable Federal and California EHP laws, executive orders, and regulations to assess potential impacts of a proposed project on affected physical, cultural (historic and archaeological), biological, and social resources is a condition of FEMA HMGP funding. Therefore, all HMGP project subapplications must undergo an EHP review as part of FEMA's eligibility review process prior to award. Projects for which actual physical work, such as groundbreaking, demolition, or construction has occurred prior to project award may be ineligible for funding.
- **Procurement.** All contracts and purchases must comply with Federal procurement guidelines outlined in 2 CFR 200 to be eligible for funding. Additionally, contracts and purchases must also comply with all applicable California and local procurement laws, regulations, and policies. In accordance with 2 CFR 200, contractors who assist with grant subapplication development will be ineligible to compete for subsequent procurements/contracts on the same grant award due to conflict of interest in which an unfair competitive advantage is present [i.e., future Phase I (design/EHP) and/or Phase II work (construction)].
- **Required Supporting Documentation.** The following materials will need to be included as part of the subapplication to be considered complete:
  1. Project Gantt Chart (Upload to Work Schedule Section)
  2. Cost Estimate Narrative (Upload to Project Cost Estimate Section)
  3. Maintenance Letter (Auto generated through Engage Portal)
  4. Match Commitment Letter (Auto generated through Engage Portal)
  5. Benefit-Cost Analysis Toolkit and Calculator PDF (Upload to BCA Section)
  6. Benefit-Cost Analysis Methodology (Upload to BCA Section)
  7. Benefit-Cost Analysis Documentation for Non-Default Values (Upload to BCA Section)
  8. FEMA EHP Checklist (Upload to Environmental Review Section)

Following review and approval by CVWD, the draft will be submitted to Cal OES. Woodard & Curran assumes one round of review and edits with CVWD.

As needed, Woodard & Curran planning staff will attend FEMA tutorials and communicate with Cal OES.

Task 3 Deliverables:

- Subapplication materials

Task 3 Assumptions:

- CVWD will be responsible for signing necessary certifications and forms and for providing copies of required documents and passing resolutions.
- CVWD will provide materials, as needed, to complete the application.
- This scope and fee estimate assumes an engineering feasibility study has already been completed and will be provided by CVWD for the project that will be included in the application.
- This scope and fee estimate does not include preparation of a Categorical Exclusion or environmental technical studies which may be required for grant award.

## **SCHEDULE**

Woodard & Curran would begin work upon notice to proceed which is anticipated on or around October 24, 2023. We estimate completion of the BCA to take up to six months, depending on timeliness of the receipt of data from the County, Caltrans, and UPRR. Woodard & Curran would continue to provide CVWD support following submittal of the subapplication with an estimated completion date of October 2024.

## **BUDGET**

Woodard & Curran proposes to complete this scope of work for an amount not-to-exceed \$281,930 on a time-and-materials basis. This fee is reimbursable through the grant and would be reimbursed retroactively. A detailed fee estimated is provided as Exhibit A.

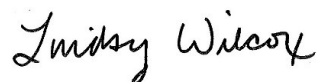
We appreciate this opportunity to work with CVWD in achieving your funding goals. Please feel free to call our proposed Project Manager, Lindsey Wilcox at (914) 513-2212, if you have any questions regarding our proposal or require any further information.

Sincerely,

WOODARD & CURRAN, INC.

A handwritten signature in blue ink that reads "Elisha Back". The signature is fluid and cursive.

Elisha Back  
Principal  
Senior Client Manager

A handwritten signature in black ink that reads "Lindsey Wilcox". The signature is fluid and cursive.

Lindsey Wilcox, P.E. (NY)  
Associate Principal  
Water Resources Engineer

## EXHIBIT A



Coachella Valley Water District  
North Cathedral City Regional Stormwater Project - CalOES/FEMA Funding

Fee Estimate  
October 19, 2023

Tasks	Labor								Total Hours	Total Labor Costs (1)	Total Fee
	Elisha Back	Lindsey Wilcox	Katie Hogan	TBD	Ryan Hirano	Joe Kirby	Emma Estabrook	Jen Sindermann			
	Principal-in-Charge	PM	TM	PE	Planner	QA	GIS	Admin.			
	\$309	\$268	\$268	\$197	\$179	\$309	\$179	\$101			
<b>Task 1: Project Management and Meetings</b>											
PM and Meetings	12	36	12				24	12	96	\$22,080	\$22,080
Subtotal Task 1:	12	36	12	0	0	0	24	12	96	\$22,080	\$22,080
<b>Task 2: Benefit Cost Analysis (BCA) Development</b>											
Task 2.1 Data Collection	1	5	48			24	40		118	\$29,089	\$29,089
Task 2.2 Hydrologic and Hydraulic Modeling	2		88	180		16	56		342	\$74,630	\$74,630
Task 2.3 BCA Development	2	8	140	40		64	220	10	484	\$108,328	\$108,328
Task 2.4 BCA Report	2	4	12	40		12	50	20	140	\$27,464	\$27,464
Subtotal Task 2:	7	17	288	260	0	116	366	30	1084	\$239,511	\$239,511
<b>Task 3: NOI and Subapplication</b>											
Forms and Content	4	4	34	10	36			5	93	\$20,339	\$20,339
Subtotal Task 3:	4	4	34	10	36	0	0	5	93	\$20,339	\$20,339
<b>TOTAL</b>	<b>23</b>	<b>57</b>	<b>334</b>	<b>270</b>	<b>36</b>	<b>116</b>	<b>390</b>	<b>47</b>	<b>1273</b>	<b>\$281,930</b>	<b>\$281,930</b>

1. The individual hourly rates include salary, overhead and profit.
2. W&C reserves the right to adjust its hourly rate structure and ODC markup at the beginning of the calendar year for all ongoing contracts.
3. Additional Woodard & Curran staff may perform work on the project, based on our standard billing rate schedule currently in effect.