SAFE CLEAN WATER PROGRAM SCIENTIFIC STUDY PROPOSAL QUESTIONNAIRE

1. Proposal identification information and summary of the project goals.

   Title: Climate Resistance and Resiliency: An Adaptive Framework for Stormwater Risk Management

   Proposing Organization: San Gabriel Valley Council of Governments (Developer: Craftwater)

   Your summary of the Project Goals and Objectives:

   Across the reviews, reviewers described the primary goal of the study as the development of a proactive and adaptive framework to assess stormwater-related risks associated with extreme natural disasters and climate change across the Upper Los Angeles River, Rio Hondo, and Upper San Gabriel River watersheds. Reviewers noted that the study proposes to evaluate vulnerabilities and impacts related to five disaster types—fires, floods, mudslides, droughts, and earthquakes—and to identify prevention and rapid-response mitigation strategies to protect water quality, water supply, stormwater infrastructure, and operations. Key proposed outputs include a Proactive Prevention and Rapid Response Mitigation Framework and a risk-benefit calculator intended to support stormwater management and investment decision-making.

2. Are the objectives clearly stated? What portion of the objectives need more clarification?

   Reviewers expressed divergent views regarding the clarity of the study objectives. Some reviewers **found the objectives to be clearly stated and logically structured, while others characterized them as overly broad and lacking sufficient specificity**. Reviewers who raised concerns **noted uncertainty regarding how stormwater-related risk would be defined and quantified, how multiple disaster types and stormwater impact categories would be integrated**, and whether objectives focus on stormwater-specific impacts versus broader disaster risk characterization. Several reviewers suggested that clearer definition of metrics, spatial and temporal resolution, and prioritization among hazards would improve objective clarity.

3. How do the project goals directly support a nexus to increasing stormwater or urban runoff capture and/or reducing stormwater or urban runoff pollution?

   Reviewers also differed in their assessment of the study's nexus to stormwater capture and runoff pollution reduction. Some reviewers identified a strong nexus, noting the focus on disaster-driven pollutant mobilization, infrastructure degradation, and water supply impacts, as well as the potential to identify strategies that maintain stormwater capture and treatment under extreme conditions. Other reviewers **characterized the nexus as indirect, expressing concern that the study may prioritize generalized disaster risk assessment over stormwater-specific processes unless the analytical focus is more clearly defined**.

4. What is (are) the overarching technical approach element(s) of the proposed project as you understand them (not necessarily the same as the elements described in the proposal)?

   Reviewers generally agreed that the proposed technical approach consists of four primary components: formation of a Technical Stakeholder Committee and community engagement process; characterization of stormwater-relevant risks using climate projections, existing hazard assessments, and worst-case scenario analyses; identification of prevention and mitigation strategies; and development of a risk-benefit calculator to support decision-making. However, reviewers differed in their interpretation of how these components would be integrated and operationalized across disaster types, watersheds, and stormwater impact categories.

5. Has the proposal provided sufficient information to describe the technical approach for each element? If not, what information is missing?

Reviewers expressed mixed views regarding the adequacy of technical detail. Some reviewers considered the task structure sufficient to understand the overall approach. Others identified substantial gaps, particularly related to how vulnerability and risk would be quantified, how probabilities and worst-case scenarios would be defined, what data sources and tools would be used for each hazard, and how uncertainty would be addressed within the risk-benefit calculator. Several reviewers indicated that additional methodological detail would be necessary to evaluate the robustness of the proposed analyses.

6. Is the technical approach sound? If not, what do you recommend should be done to improve the technical approach of the proposed project?

   Reviewers' assessments of technical soundness varied considerably. Some reviewers viewed the overall framework as conceptually sound and consistent with prior SCWP-supported climate and disaster studies, particularly if existing methods and datasets are leveraged. Other reviewers stated that the technical soundness could not be adequately evaluated due to insufficient description of the analytical methods, integration across hazards, and stormwater-specific impact modeling. These reviewers emphasized that clearer articulation of research design, risk scoring, and modeling assumptions would be needed to establish confidence in the approach.

7. How achievable are the study's stated technical objectives, especially within the proposed timeframe and budget?

   Reviewers differed in their assessment of achievability. Some reviewers considered the objectives achievable within the proposed timeframe and budget, citing the phased task structure and reliance on existing resources. Others expressed concern that the broad scope—five disaster types across three watersheds—may limit feasibility and result in outputs that are too generalized unless scope and analytical depth are carefully managed.

8. What are the greatest technical risks that you foresee the proposing agency facing when implementing the project?

   Reviewers identified several technical risks, including uncertainty associated with downscaled climate projections, challenges in modeling interconnected disaster sequences (e.g., fire followed by mudslides), data gaps related to stormwater asset inventories, and limitations in monetizing stormwater-relevant impacts within a cost-benefit framework. Additional risks cited included scope creep, inconsistent methodology across hazards, and difficulty integrating the framework into existing agency planning and decision-making processes.

9. Please describe the linkages between the project's technical objectives and the types of decisions that stormwater managers will make based on the project's outcome(s)? Will the technical achievements provide stormwater managers useful linkages that extend beyond this study?

   All reviewers agreed that, if successfully implemented, the study could provide useful decision-support tools for stormwater managers. Potential applications include prioritization of capital investments, identification of vulnerable assets and communities, evaluation of prevention versus response strategies, and communication of risk and cost tradeoffs to decision-makers and the public. However, several reviewers emphasized that the usefulness of these linkages depends on the study's ability to clearly translate disaster risk assessments into stormwater-specific, actionable guidance.

10. Please provide any additional technical perspectives you would like to share.

    No additional technical perspectives noted.

11. Please answer each of the following questions by selecting one of the following five answer choices: *Excellent, Very good, Adequate, Inadequate or Not applicable because of insufficient information*. Please add an explanation to accompany your answer choice (or refer to the question number above for appropriate context and rationale):

    a. How well do the proposal objectives address the County's goals of increasing stormwater or urban runoff capture and/or reducing stormwater or urban runoff pollution?

       Ratings ranged from Inadequate/Not Applicable due to insufficient information to Excellent, reflecting differing views on the clarity and stormwater specificity of the proposed framework and the sufficiency of methodological detail provided. Lower ratings reflected uncertainty regarding stormwater specificity and nexus, while higher ratings reflected the importance of addressing disaster-driven stormwater risks under climate change.

    b. How well do you think the technical approaches will achieve the study objectives and stated outcomes?

       Ratings ranged from Not Applicable due to insufficient information to Excellent. Reviewers expressed high confidence where the framework was viewed as leveraging existing methods, and low confidence where methodological detail was considered insufficient.

    c. Technical experience and qualifications of the study team?

       Ratings ranged from Not Applicable due to insufficient information to Excellent. Some reviewers noted strong qualifications and advisory structures, while others cited limited information on team composition and roles.