

## SAFE CLEAN WATER PROGRAM SCIENTIFIC STUDY PROPOSAL QUESTIONNAIRE

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

Title: **Quantifying Community Flood Management Benefits of**

**Watershed-Scale Stormwater Capture**

Proposing Organization: **San Gabriel Valley Council of Governments**

Your summary of the Project Goals and Objectives:

**The reviewers agreed that the primary goal of the study is to quantify the community flood management benefits of watershed-scale stormwater capture projects. This includes assessing opportunities for channel restoration under varying climate conditions, developing standardized methods for evaluating flood improvements, and providing recommendations for project siting and design. Specific objectives include:**

- **Identifying metrics and analytical methods for quantifying flood management benefits and Community Investment Benefits (CIBs).**
- **Estimating flood management benefits of historical and future SCWP projects.**
- **Evaluating watershed-scale transformations to support channel restoration while managing flood risks.**
- **Developing recommendations for project siting and design to maximize flood risk reduction and community benefits.**

**Two reviewers emphasized the study's focus on integrating flood mitigation with broader stormwater management goals, making it highly relevant to SCWP objectives.**

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

**All reviewers found the objectives clearly stated. However, one reviewer recommended providing additional clarification on:**

- **Specific metrics and benchmarks for evaluating flood benefits, such as peak flow mitigation and volume reduction.**
- **How the pilot subwatershed results will be scaled and applied to the larger watershed area.**

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?

**All reviewers agreed that the project directly supports SCWP goals by quantifying flood management benefits and linking them to stormwater capture. By integrating flood mitigation with stormwater projects, the study enhances water quality and increases resilience to climate impacts. One reviewer highlighted the study's potential to guide future channel restoration efforts, further aligning with regional stormwater management priorities.**

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)?

The reviewers outlined the following technical approach elements:

1. **Hydrologic Modeling:** Conducting volume capture and peak flow reduction analysis using existing and planned SCWP projects.
  2. **Pilot Study:** Focusing on the Arroyo Seco subwatershed to evaluate flood risks, opportunities, and project impacts under various scenarios.
  3. **High-Resolution Modeling:** Integrating two-dimensional flood modeling with climate change data to assess flood management potential across the watershed.
  4. **Recommendations and Tools:** Developing design guidelines and tools for optimizing project siting and flood reduction benefits.
5. Has the proposal provided sufficient information to describe the technical approach for each element? If not, what information is missing?

Two reviewers found the proposal sufficiently detailed, while one suggested additional information in the following areas:

- **Scaling Framework:** Provide a clear plan for extrapolating pilot findings to the larger watershed.
  - **Stakeholder Engagement:** Clarify how input from stakeholders will influence project prioritization and design recommendations.
  - **Long-Term Maintenance:** Include strategies for updating tools and models to provide continued relevance.
6. Is the technical approach sound? If not, what do you recommend should be done to improve the technical approach of the proposed project?

The reviewers found the technical approach sound, with some recommendations for improvement:

- **Evaluation Criteria:** Clearly define the metrics and criteria used to evaluate flood management benefits.
  - **BMP Guidance:** Incorporate actionable BMP design recommendations informed by modeling outputs.
  - **Co-Benefits:** Include metrics for additional benefits, such as heat island reduction and habitat restoration, to enhance multi-benefit planning.
7. How achievable are the study's stated technical objectives, especially within the proposed timeframe and budget?

Two reviewers deemed the objectives achievable within the one-year timeframe and \$470,000 budget, particularly given the manageable scope of the pilot phase. However, one reviewer noted that modeling projects often face delays and suggested proactive project management to mitigate risks of schedule slippage and scope creep.

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

**The reviewers identified several technical risks:**

- 1. Data Gaps: Incomplete or low-resolution hydrologic data could impact model accuracy.**
  - 2. Model Integration: Ensuring consistency between UCLA/UCI models and SCWP tools may present challenges.**
  - 3. Stakeholder Coordination: Aligning diverse stakeholder priorities could delay progress and complicate deliverables.**
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?

**The reviewers agreed that the study's outcomes will provide actionable insights for stormwater managers, including:**

- Tools for evaluating flood risk reduction potential of SCWP projects.**
- Metrics for optimizing project design and siting.**
- Data on channel restoration feasibility to support multi-benefit planning and SCWP compliance.**

**One reviewer highlighted the study's potential to inform broader watershed-scale BMP design and enhance resilience to future climate impacts.**

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

**The reviewers offered the following perspectives:**

- The study bridges stormwater management with flood mitigation and channel restoration, making it a valuable resource for integrated planning.**
- Leveraging existing SCWP tools and regional models provides efficient use of resources and alignment with ongoing initiatives.**
- Expanding the study to include economic analysis of proposed transformations could strengthen decision-making support.**

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?

**Two reviewers rated the objectives as "excellent," emphasizing their alignment with SCWP goals. The third reviewer rated them as "very good," noting the potential for broader application beyond the study area.**

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

**Two reviewers rated the technical approaches as "excellent," while the third found them "very good," citing the robust methodology and integration of advanced modeling tools.**

- c. Technical experience and qualifications of the study team?

**All reviewers rated the study team as "excellent," highlighting their expertise in stormwater management, flood modeling, and climate science. The collaboration between SGVCOG, UCLA, UCI, and Craftwater Engineering was seen as a major strength of the proposal.**