

SAFE CLEAN WATER PROGRAM SCIENTIFIC STUDY PROPOSAL QUESTIONNAIRE

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

Title: **Community Garden Stormwater Capture Investigation**

Proposing Organization: **Los Angeles Community Garden Council**

Your summary of the Project Goals and Objectives:

The proposal reviewers agree that the goal of this project is to identify existing community gardens in L.A. County that are optimally suited to serve as implementation sites for BMPs, and to develop BMP design concepts for multiple sites across multiple watersheds where runoff capture/treatment could be optimized.

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

The reviewers disagree on whether the objectives are clearly stated. Two reviewers said the objectives are generally clear, while the third said the objectives are not entirely clear. One of the reviewers who indicated the objectives are generally clear said they would have liked to see more clarity on how candidate sites will be ranked and prioritized, while the other reviewer described the objectives as clear but too brief. The third, more critical reviewer said the number of watersheds to be studied is not clear – either 7 or 14, depending on where in the proposal you read – nor is there clarity around how the sites will be analyzed and what kinds of design criteria will be used.

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?

The reviewers disagree on how effectively the project supports the SCWP's goals of increasing stormwater or urban runoff capture and/or reducing stormwater or urban runoff pollution. Two of the reviewers expressed doubts, while the third reviewer expressed confidence. Of the two reviewers who expressed doubts, one questioned whether a lack of BMP concept designs for community gardens is the limiting factor and the cause of more BMPs not being built, and also questioned whether, as a result of having concept designs, more BMPs would actually be implemented in L.A. County. The other reviewer who expressed doubts pointed out that no BMPs will actually get built by the end of the project, although with additional future funding for implementation, the reviewer expressed optimism that the project could be impactful. The third reviewer expressed confidence in the proposal's potential management impact, commending the proposal for considering both site characteristics and the buy-in of community garden leaders in selecting BMP sites.

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 proposal reviewers agree that the proposal consists of the following steps: (1) compile basic information for about 750 community gardens in L.A. County, (2) narrow down these sites to a much smaller number of candidate sites using screening criteria, (3) visit the candidate sites to collect field information, (4) develop conceptual designs for implementing BMPs at a subset of the

candidate sites, and (5) develop materials to support future efforts to secure the necessary funding to implement the BMP concept designs.

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

All three reviewers expressed concerns about the lack of detail in the technical approach. One reviewer noted the lack of information about what site selection criteria will be used – specifically, if volume of stormwater the site is capable of capturing would be considered. A second reviewer noted that the proposal writer had skipped or provided little information in multiple key subsections, including neglecting to specify site selection criteria and threshold cutoffs. The third reviewer expressed concerns about the feasibility of obtaining some types of data for various sites, and the lack of detail on the role of the [SCWP] Coordinator .

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

All three reviewers expressed concerns about the technical soundness of the proposal. One reviewer deemed the technical gaps to be “significant,” noting that the proposal should have offered much more specificity around what the final concept designs will look like, what types of BMPs will be considered, and what field data will be collected. A second reviewer said that the proposal’s plan to rely on existing, publicly available soil survey data would be a mistake, as these data are “notoriously inaccurate.” The third reviewer expressed concerns about the lack of detail on BMP sizing requirements and feasibility evaluations at the sites where concept designs will be created.

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

All three reviewers agreed that the study’s timeframe and budget seem reasonable, although one reviewer said they are “somewhat unsure” about taking this stance due to insufficient technical details in the proposal. The other two reviewers said the timeframe was reasonable and that the budget might be larger than necessary.

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

All three reviewers agreed that the project could experience significant technical risks, although the reviewers had difficulty pinpointing these risks and providing solutions because of the lack of technical detail in the proposal. One reviewer questioned whether narrowing down the sites during the screening process will result in a viable list of candidate sites, and also whether the site selection data to be collected will identify all relevant site-specific factors that the project team will need to know when preparing its concept designs (and moreover, that managers will need to know to sign off on the design plans). A second reviewer expressed concerns about improper soils or groundwater elevation data sets resulting in multiple candidate sites identified through the evaluation process being ultimately disqualified during the concept design stage. The third reviewer expressed concerns that the proposal does not explicitly identify all of the data sets that

will be collected, noting that the quality of these data sets will determine the feasibility of the project itself.

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 disagreed on whether the study will produce results useful to stormwater managers. Two of the reviewers expressed doubts, with one noting that it remains unclear whether the BMP concept designs developed through this project will actually be implemented, and the other reviewer noting that with no plan for data collection presented, the proposal is unlikely to advance management practices. The third reviewer expressed confidence in the proposal’s potential management impact, noting that the study will give managers a list of sites that are appropriate for implementing BMPs.

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

All three reviewers provided additional perspectives expressing doubts about the technical underpinnings of the proposal. One reviewer said that the proposal should have discussed the positive impact of “green jobs” creation, and provided more detailed cost justification, especially given that some watersheds have many more community gardens to evaluate than others. A second reviewer expressed disappointment that the proposal did not highlight how much stormwater could be captured if the BMP concept designs to be developed via this study were to all be eventually implemented; the second reviewer also noted that many of the sites – being former housing plots – are likely to be above street level, which would require implementing BMPs requiring disruptive excavation work. The third reviewer simply expressed disappointment at the lack of technical detail in the proposal.

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 of the reviewers rated the proposal’s objectives as being “adequate” for addressing SCWP goals, but simultaneously used their rating to criticize the proposal, with one reviewer noting that community gardens may not be optimal BMP locations in the first place and may not have sizeable-enough watersheds to justify placing BMPs in them, and the other characterizing the project’s final products as “underwhelming for the total budget proposed.” The third reviewer provided a “Not applicable because of insufficient information” rating.

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

All three reviewers rated the chances of the project achieving its stated outcomes as “adequate.” One of the reviewers did not elaborate, while the other two reiterated their concerns about the lack of technical detail.

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

All three reviewers provided a “Not applicable because of insufficient information” rating, with one explicitly calling out the fact that no information was provided for any members of the project team, except for the proposal writer.

SAFE CLEAN WATER PROGRAM SCIENTIFIC STUDY PROPOSAL QUESTIONNAIRE

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

Title: **Maximizing Impact of Minimum Control Measures**

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

Your summary of the Project Goals and Objectives:

The reviewers agree that the project's overarching goal is to develop standardized methods for quantifying the effectiveness of non-structural BMPs (a.k.a. minimum control measures, or MCMs) and then for optimally integrating these MCMs into watershed management strategies in the L.A. region. Specifically, the project will aggregate existing MCM monitoring data and collect additional data, decide how to model MCM performance, facilitate the integration of MCMs into models, and create publicly accessible tools to promote adoption of these approaches.

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

All three reviewers agree that the project's objectives are, on the whole, clearly stated. Two reviewers provided suggestions for further improving clarity, including providing more information on how the MCMs will be monitored and evaluated, and clarity on the specific roles and responsibilities of the project's stakeholder engagement group.

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 three reviewers agreed that the project effectively supports the SCWP's goals of increasing stormwater or urban runoff capture and/or reducing stormwater or urban runoff pollution. All three reviewers applauded the study's focus, noting that MCMs have historically been understudied and that there is a management need to improve understanding MCM performance and to facilitate their integration into routine watershed management.

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 agreed that the technical approach will consist of collecting data on MCM performance in the L.A. region, standardizing data collection and performance evaluation methods, developing a technical approach for integrating MCMs into watershed models, and leveraging these insights to improve understanding of how to enhance and optimize MCMs to deliver maximum benefits.

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

All three reviewers pointed out information that is missing from the proposal. Two of the reviewers identified relatively few missing details, while the third reviewer identified extensive amounts of missing information. The two reviewers who identified relatively few details said they were looking for more detailed information on how MCMs will be monitored and have their performance evaluated, as well as how the study will produce a final set of tools that are built on

a rigorous technical foundation. The third reviewer indicated they were looking for more specificity for almost every task, noting a lack of detail regarding specifically how many of the tasks will be carried out.

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 disagreed on the soundness of the study's technical approach. One reviewer characterized the approach as "very sound." A second reviewer said it is "hard to tell" because of a lack of detail. And the third reviewer said the approach is "generally sound," but identified multiple areas that are unclear in the proposal, including how the MCM performance modeling will be conducted and how cost-effectiveness will be determined.

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

All three of the reviewers expressed optimism that the study's goals could be achieved within the stated timeframe and budget, but all of the reviewers caveated their optimism by noting that they would have liked to see more details to feel confident about this assessment.

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

All three reviewers identified technical risks associated with implementing this project. One reviewer expressed concerns about the project's ability to monitor, evaluate and quantify MCM performance in a "robust, credible and consistent manner." A second reviewer expressed concerns that the online tools would lack a strong technical footing. The third reviewer expressed concerns about potentially unpredictable outcomes when engaging with stakeholders, and about collecting potentially uneven data on MCM performance, which could complicate efforts to optimally integrate MCMs into watershed planning.

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 three reviewers expressed confidence that the project has strong potential to influence management decision-making. One reviewer described the project as "high value," a second reviewer said the project could lead to increased MCM investments by local governments, and the third reviewer said the study will provide "critical tools" to inform best management practices.

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

All three reviewers suggested that the project should reach out to and learn from similar efforts by others. One reviewer suggested engaging with national groups, including the National Municipal Stormwater Alliance. A second reviewer suggested convening a national panel of technical experts to provide peer review, and possibly funding the project in a phased/adaptive manner to ensure the project's final tools are built on a strong technical foundation. The third reviewer suggested reaching out to municipalities with experience in this topic, such as Austin,

Texas, for support and guidance, particularly for areas like how to evaluate and quantify MCM performance.

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 of the reviewers rated the proposal's objectives as being "excellent" for addressing SCWP goals, while the other reviewer gave a "very good" rating and did not elaborate further.

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

The reviewers disagreed on the likelihood of the study achieving its objectives. One reviewer gave an "excellent" rating, one gave an "adequate" rating, and one gave an "adequate to inadequate" rating and did not elaborate further.

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

The reviewers disagreed in their assessment of the study team's capabilities. One reviewer gave an "excellent" rating, while the other two gave a "Not applicable because of insufficient information" rating. One of the latter two reviewers elaborated on their rating, noting that while the proposal makes clear that the study team is already involved with similar work, the proposal fails to describe successful completion of any of this work.

SAFE CLEAN WATER PROGRAM SCIENTIFIC STUDY PROPOSAL QUESTIONNAIRE

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

Title: **Regional Pathogen Reduction Study**

Proposing Organization: **Gateway Water Management Authority**

Your summary of the Project Goals and Objectives:

The reviewers agreed that the overarching goal of this project is to develop targeted, science-informed management strategies for remediating the specific sources of human fecal pollution in L.A. County watersheds that pose the greatest human health risks. Specifically, the study will leverage recent scientific advances in fecal pollution tracking and fecal risk assessment to: (1) determine the sources of fecal pollution that pose the greatest human health risks during both dry and wet weather, (2) identify beaches and other recreational water bodies where these risks are greatest, and (3) develop management actions for combatting fecal pollution in the highest-risk areas.

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

The reviewers agreed that the study's goals are clearly stated. One reviewer was unequivocally positive in their assessment, while the other two reviewers caveated their assessments. Of the latter two reviewers, one said that while the goals were clearly stated, the goals were unrealistic (see Question 6). The second of the latter two reviewers said that the proposal lacks important details in how specifically the objectives will be achieved, although this reviewer simultaneously suggested that this lack of clarity will resolve itself once the technical team begins gaining internal clarity via a stakeholder engagement process.

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?

The reviewers disagreed on the likelihood of the study supporting the SCWP's goals of increasing stormwater or urban runoff capture and/or reducing stormwater or urban runoff pollution. Two of the reviewers expressed confidence and optimism about the project's management impact, noting that the project is likely to produce information that directly informs how fecal pollution is managed. The third reviewer expressed significant doubts about the project's ability to influence management actions – a consequence of what the third reviewer characterized as potentially erroneous assumptions baked into the study design. Specifically, the third reviewer noted that the proposal's lack of detail in the methods sections casts doubt on the technical rigor of the study design. This third reviewer also expressed skepticism about whether high-risk fecal sources can be "clearly identified," and whether viable stormwater BMPs presently exist to effectively target the high-risk sources.

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 agreed that the study's technical elements will consist of: (1) collecting water samples from beaches, rivers, creeks and channels across L.A. County, (2) using both legacy fecal

pollution detection methods and next-generation molecular methods to measure fecal indicators, fecal genetic markers, viruses and other pathogens, (3) estimating human health risks at beaches and other recreational water bodies and (4) developing a management tool and management plans for addressing the highest-risk human fecal contamination sources.

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

The reviewers disagreed on whether the proposal adequately describes the study's technical approach. One reviewer said the technical approach is sufficiently described and reiterated that any information gaps will be filled via stakeholder engagement. The other two reviewers said the technical approach is not sufficiently described. Both of the latter two reviewers said information is woefully lacking about the molecular methods for detecting fecal contamination, how health risk assessment work will be performed on the water-quality constituents that are measured, and how stormwater BMPs will be selected to target the highest-risk sources. These two reviewers noted that the success of the project will be dependent on getting all of these key aspects of the study right. One of the latter two reviewers also noted that when it comes to optimizing stormwater BMPs to remove human viruses and other pathogens, the science itself remains "very poorly understood."

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 disagreed in their assessment of the soundness of the study's technical approach. One reviewer expressed confidence that the technical approach is sound and offered no caveats. A second reviewer said that not enough information was provided to evaluate the technical approach itself, citing multiple potential shortcomings with the study's methods, including whether the study will properly account for human behavior and how the study will account for pathogen concentrations that could fall below detection limits. The third reviewer was even more critical of the study's technical approach, noting that the chance of the study succeeding as designed is "unrealistic" and suggesting that the study be redesigned to focus on assessing risk at beaches first, then moving upstream into the watershed "in a much more focused and targeted manner."

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

The reviewers disagreed about how achievable the study's objectives are within the proposed timeframe and budget. One reviewer expressed full optimism about the timeframe, and did not explicitly comment on the budget. A second reviewer expressed cautious optimism about the study's timeframe and budget, but noted that the proposal's lack of technical detail makes it "difficult" to properly assess the timeline and budget. The third reviewer, while not explicitly commenting on the budget or timeline, was the most pessimistic, noting that the study's ability to measure fecal constituents will depend on the qualifications of the team tasked with performing this work – qualifications that were not sufficiently described in the proposal. The third reviewer also reiterated that the science remains too underdeveloped for managers to identify and implement specific stormwater BMPs that will reliably remove human fecal contamination.

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

All three reviewers identified technical risks that could affect the study's success. While one reviewer said that the greatest technical risk is simply that the project will not be completed on time, the other two reviewers agreed that the greatest technical risk will lie in the qualifications of the study team, which was not explicitly described in the proposal. Both of these latter two reviewers stressed that the consequences of using an unqualified study team for this type of work could be profound. One reviewer explained that the data obtained "might be highly variable or inaccurate" and, moreover, "not suitable" for conducting human health risk assessments. The other reviewer noted that it is "very easy" to misuse fecal pollution data and risk assessment analyses; this reviewer also stressed that measuring pathogens in water "is like looking for a needle in a haystack."

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 disagreed about whether the study will produce results that are relevant and directly applicable to stormwater managers. Two of the reviewers expressed confidence that the project will be directly used to inform decision-making, citing the study's potential to understand which specific fecal contamination control measures to implement across L.A. County, as well as which specific fecal parameters should be monitored going forward to optimally manage human health risks. The third reviewer stated they are "very dubious" that the study will be used to inform management decisions, noting that the study is unlikely to produce actionable management recommendations because human fecal pollution in watersheds is too ubiquitous and diffuse, and because the science remains underdeveloped to advance viable stormwater BMP solutions that effectively address this pervasive contamination challenge.

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

All three reviewers provided additional comments. One reviewer complimented the overall study design, noting its potential to "greatly increase knowledge" about fecal contamination sources and removal strategies. A second reviewer reiterated previously expressed concerns about how the ubiquitous, diffuse nature of fecal contamination is likely to put inherent limitations on the study's ability to viably identify stormwater BMPs that will effectively control fecal contamination. And the third reviewer reiterated the importance of ensuring the study design is technically rigorous, including by properly accounting for pathogen concentrations that are below detection limits, by using a full suite of methods to detect fecal contamination, and by using robust data analysis and risk assessment methods.

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?

The reviewers disagreed in their assessment of how effectively the study will address SCWP goals. Two reviewers gave "excellent" and "very good" ratings, respectively, with both reviewers expressing confidence that the study will provide managerially actionable insights. The third reviewer gave an "inadequate or not applicable because of insufficient information" rating, reiterating concerns about "no real technical details" in the study and the lack of broader management context for the study.

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

The reviewers disagreed in their assessment of the likelihood of the study's success. One reviewer gave a "very good" rating and did not elaborate further. The other two reviewers offered a more pessimistic outlook, providing "inadequate" and "not applicable because of insufficient information" ratings, respectively. Both of the latter two reviewers said too little information was presented in the study to properly assess its likelihood of success, especially a lack of information on the study team's qualifications.

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

The reviewers disagreed in their assessment of the study team's capabilities. One reviewer gave a "very good" rating and did not elaborate further. The other two reviewers expressed reservations about the study team. One of the latter two reviewers gave an "inadequate" rating and reiterated concerns about the lack of specifics presented in the proposal regarding the study team's qualifications. The other reviewer, who gave a "not applicable because of insufficient information" rating, expressed reservations about the fact that the study team will be assembled "via stakeholder engagement" after the project gets underway; this reviewer, however, noted the background information presented in the proposal is solid and will put the study team on a solid scientific foundation – at least initially.

SAFE CLEAN WATER PROGRAM SCIENTIFIC STUDY PROPOSAL QUESTIONNAIRE

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

Title: **Additional Funding Request to Support the LRS Adaptation Addressing the LA River Bacteria TMDL for the ULAR Watershed Management Group**

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

Your summary of the Project Goals and Objectives:

The reviewers agreed that the study's goal is to identify the sources of fecal contamination in the Upper Los Angeles River that pose the greatest human health risks, and to identify targeted management strategies for efficiently reducing these sources. The study represents Phase 2 of a previous SCWP-funded study that began the process of identifying major fecal contamination sources in the watershed. Phase 1 developed a framework for identifying high-risk sites and conducted an initial round of monitoring and analysis. Phase 2 of the project will fill in data gaps through additional monitoring, plus refine management strategies for addressing the highest-priority areas. The study also aims to conduct stakeholder outreach and to develop materials to guide other stormwater managers in taking a similar, targeted approach to remediating elevated human fecal contamination levels in watersheds.

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

All three reviewers agreed that the study's objectives are clearly stated and do not require additional clarification, with one reviewer complimenting the objectives for being "logically laid out."

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 three reviewers agreed that the project effectively supports the SCWP's goals of increasing stormwater or urban runoff capture and/or reducing stormwater or urban runoff pollution. One reviewer noted that the project has the potential to not only reduce fecal contamination, but also to "eliminate dry-weather flows that likely contain additional pollutants." A second reviewer noted that the project's focus on inventorying fecal contamination sources represents "the first step in mitigating pollution control." The third reviewer applauded the project's potential to generate data that are "critical to identifying locations and sources of pollution."

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)?

All three reviewers agreed that the project's technical approach consists of: (1) conducting water-quality monitoring to understand which tributaries are contributing the highest human fecal contamination levels, (2) identifying human waste sources in proximity to high-risk sites through sanitary surveys, mapping and stakeholder engagement, and (3) developing targeted management strategies for remediating sources that pose the highest human health risk.

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

All three reviewers agreed that the proposal sufficiently describes the technical approach and did not elaborate further.

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

All three reviewers agreed that the technical approach is sound. Two of the reviewers complimented the project for deriving its study design from methods outlined in the California Microbial Source Identification Manual, which offers best-practices guidance for how to identify fecal contamination sources. One of these reviewers also noted that the study's monitoring design is effective because it can be adapted over time as data and information are collected from individual monitoring sites.

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

All three reviewers agreed that the project is achievable within the proposed timeframe and budget. Only one of the reviewers offered a caveat to this assessment, expressing "concern" that the proposing organization's request for Phase 2 funding could indicate that not all of the Phase 1 objectives were achieved.

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

One reviewer said they do not anticipate "any major technical risks" and expressed full confidence in the study's achievability. The other two reviewers identified potential technical risks. One of the latter two reviewers said that not all study objectives may be achievable within the project timeframe. The second of the latter two reviewers said that the study's plan to analyze and compare two different indicators of fecal contamination – the genetic marker HF183 and fecal indicator bacteria – could present data interpretation challenges since other researchers have found the relationship between these two indicators to be "highly variable." This same reviewer, however, expressed confidence that the project's plans to identify sewer lines, homeless encampments, illicit connections, and other specific potential sources of fecal contamination should provide important context, helping to mitigate potential challenges associated with interpreting the water-quality data.

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 three reviewers agreed that the project has strong and direct linkages to stormwater management and decision-making processes. One reviewer said the project could lead to managers using "different techniques" to remove bacteria from runoff. A second reviewer suggested the project could serve as a template that could be replicated by other watersheds facing similar challenges with bacterial TMDL compliance. The third reviewer said the project is likely to be able to lead to viable solutions for remediating multiple potential types of fecal contamination.

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

Two reviewers provided additional perspectives. One reviewer reiterated a previously expressed concern that if Phase 1 of the project was not successfully completed, it would cast doubt on the achievability of the study's Phase 2 goals. The second reviewer complimented the study design for offering "a very practical and effective approach" for identifying and prioritizing among the highest-risk sites.

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?

The three reviewers disagreed in their assessment of how effectively the project addresses SCWP goals. One reviewer gave an "adequate" rating and did not elaborate further. A second reviewer gave a "very good" rating and suggested that the density of sampling during the study may not be adequate to fully address SCWP goals. The third reviewer gave an "excellent" rating and complimented the study for working to create viable management strategies for addressing bacterial TMDLs.

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

The three reviewers disagreed in their assessment of the likelihood of the study achieving its goals. Two reviewers gave an "excellent" rating, with one of these reviewers expressing confidence that the project will "ultimately inform mitigation strategies." The third reviewer gave an "adequate" rating and did not elaborate further.

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

The three reviewers disagreed in their assessment of the study team's qualifications. Two reviewers gave an "excellent" rating, with one of these reviewers complimenting the study team for being familiar with collecting water-quality data to identify fecal contamination sources. The third reviewer gave an "adequate" rating and did not elaborate further.