

SAFE CLEAN WATER PROGRAM SCIENTIFIC STUDY PROPOSAL QUESTIONNAIRE

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

Title: **Gateway Area Pathfinding Analysis (GAP Analysis) - Phase 2**

Proposing Organization: **Gateway Water Management Authority**

Your summary of the Project Goals and Objectives:

The reviewers agree that the overarching goal of this study is to take a data-driven approach to determining which specific potential future BMP projects in the Gateway Area watershed area should become implementation priorities to achieve maximum watershed-scale benefits. This Phase 2 study builds on previously funded Phase 1 work to develop technically rigorous methods for determining these implementation priorities; now the methods are ready to be implemented across a larger geographic area during Phase 2. The Phase 2 project will work to understand how various potential BMP projects could synergistically interact to achieve the greatest water-quality improvements – a task that will include identifying all potential BMP projects not already identified, and then using a series of modeling analyses to prioritize among all identified candidates.

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, although all three reviewers offered relatively minor suggestions for areas to that could be clearer, including rewording some of the specific project objectives to flow more logically, providing more details on the scope of the BMP projects that will be considered, and clarifying whether the BMP projects will be evaluated more on their ability to improve water capture or water quality.

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. Each reviewer offered comments affirming the strength of the anticipated management impacts of this work. One reviewer noted that the project's "tight integration" with watershed management planning in the region will help ensure beneficial outcomes. A second reviewer commended the study's focus on maximizing use of taxpayer dollars, and expressed confidence that the study will effectively help the Gateway Area "tee up" funding for implementing priority BMP projects. The third reviewer commended the study for taking a "system-of-projects" approach to evaluating and prioritizing BMP implementations, instead of evaluating each project in a silo.

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 main elements of the study's technical approach consist of: (1) using a combination of modeling, geospatial mapping and field surveys to identify all potential BMP projects, including all specific sites, (2) using modeling to turn individual potential projects on and off in the Gateway Area to understand which combinations of projects will lead to the

most positive benefits, and (3) identifying a list of priority projects based on the scenario analyses via an iterative modeling process that also considers cost.

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

All three reviewers commended the overall technical approach described in the proposal – in particular, the methodical way that the proposing organization responded to comments received by the reviewers of its Phase 1 proposal. At the same time, all three reviewers pointed to multiple specific technical aspects that they would have liked to see clarified, including more detailed explanation of the analysis methods, the range of different types of BMP projects that will be considered, how the scenario analyses will be conducted to identify optimized combinations of BMP projects, how the study will define the clean-water goals it will work toward, and how costs associated with different BMP projects will be estimated.

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 confidence that the technical approach is sound and will appropriately build on an existing SCWP-funded project. At the same time, all three reviewers offered suggestions for improving the technical approach. One reviewer suggested including uncertainty analysis during the modeling analysis work. A second reviewer suggested providing more transparency for what appears to be “some sort of proprietary modeling scheme” by the proposing organization, and defining how cost estimates for the various BMP projects will be determined. And the third reviewer recommended convening a technical advisory committee to review all of the project’s analyses and findings.

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

All three reviewers expressed confidence that the budget is reasonable to achieve the study’s goals, with one reviewer adding that the return on investment for this project is “likely high.” The reviewers did not agree on whether the timeframe is reasonable. One reviewer expressed confidence the timeframe will be reasonable, while the other two reviewers expressed doubts, with one saying the timeline could be a “pipe dream” and the other saying the timeline “seems ambitious” and will be dependent on when the project is actually funded.

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 this project, although they caveated their assessment by noting that the identified risks are inevitable and/or will not fundamentally derail the project. One reviewer said the greatest risk will be uncertainty in the modeling simulations that could result in less water-quality improvements than anticipated. A second reviewer said the data inputs that go into the modeling work – particularly site-specific conditions like soil and utilities – are “often wrong” and noted that the only way to manage these risks would be to do more analysis than the study calls for. The third reviewer noted that after all of the analysis and scoring work is complete, multiple priority BMP projects could be ruled out during

the engineering analysis stage – an unfortunate outcome because, once the project’s priorities are developed, the project has no feedback loop to reassess these priorities later.

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 study will produce results that are relevant and directly applicable to stormwater managers, although they were not all on the same page about how much of an impact the results will have on managers beyond the study area. While one reviewer expressed optimism that other watersheds could readily adopt the study’s modeling techniques, a second reviewer pointed out that the project has no tangible products or data sets that a stormwater manager outside the study area “can pick up and utilize in another watershed.” (The third reviewer did not weigh in on the project’s utility beyond the Gateway Area.)

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

While one reviewer provided no additional comments, the other two reviewers offered additional technical perspectives. One reviewer commented that the project has a “very good chance of success” and noted that the study team has the technical capabilities to incorporate uncertainty analysis into its modeling work, even though the project scope does not call for uncertainty analysis. The second reviewer commented that the proposal overall feels “amorphous and not grounded in the local watershed,” and that maps and other materials to orient the reader to the watershed area would have been helpful.

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?

One reviewer rated the proposal’s objectives as being “excellent” for addressing SCWP goals, while the other two reviewers gave a “very good” rating. The latter two reviewers said they did not give the proposal the highest possible rating because of reservations about some technical aspects of the proposal: One cited a lack of information about the total number of BMP projects that will or could be implemented from this work, and the other cited the fact that analyses of the BMP projects will be limited to incorporating project “typology” data only, as opposed to data unique to each individual BMP project, which would be preferable.

- 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. A second reviewer gave a “very good” rating and said that the study’s lack of uncertainty analysis for the modeling was the reason it did not receive a higher rating. The third reviewer gave an “adequate” rating and stated that they did not rate the proposal higher because of a lack of specifics on how the modeling will be conducted.

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

All three reviewers rated the study team’s capabilities “excellent” and had only positive things to say about the study team, including that the study team has a demonstrated track record of success doing this type of work.