

SAFE CLEAN WATER PROGRAM SCIENTIFIC STUDY PROPOSAL QUESTIONNAIRE

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

Title: **Street Sweeping Study (ULAR)**

Proposing Organization: **City of Los Angeles**

Your summary of the Project Goals and Objectives:

All three reviewers agreed that the study aims to evaluate street sweeping practices to enhance pollutant removal efficiency and improve water quality in the Upper Los Angeles River (ULAR) watershed. The study builds on previous efforts, expanding geographic scope and refining methodologies for assessing sweeper effectiveness and street dirt characterization.

Specific objectives include:

- **Evaluating the effectiveness of different sweeper technologies under controlled and real-world conditions.**
- **Characterizing street dirt and pollutant accumulation to inform route prioritization.**
- **Developing heat maps to optimize street sweeping frequency and pollutant removal.**
- **Providing data that can be used by municipalities for compliance with water quality regulations and stormwater management programs.**

Two reviewers emphasized that the study's findings could inform broader regional street sweeping strategies and be integrated into Watershed Management Plans.

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

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

- **How the study will address potential data gaps, such as areas with incomplete sweeping records.**
- **How findings will be scaled beyond the ULAR watershed to benefit other municipalities.**

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 study directly supports stormwater management by:

- **Enhancing pollutant removal through optimized street sweeping techniques.**
- **Providing data to support compliance with Total Maximum Daily Load (TMDL) requirements and MS4 Permit obligations.**
- **Informing decisions on street sweeping frequency and locations to maximize pollution reduction.**

One reviewer highlighted that improved street sweeping practices could also lead to secondary benefits, such as improved air quality.

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. **Compilation of Existing Data:** Reviewing current street sweeping routes, material conditions, and land use.
2. **Sweeper Effectiveness Testing:** Conducting controlled and real-world tests to compare different sweeper types.
3. **Street Dirt Characterization:** Analyzing pollutant accumulation rates across various conditions.
4. **Heat Map Development:** Creating visual tools to optimize street sweeping frequency and pollutant removal.
5. **Implementation Strategy:** Developing recommendations to improve overall street sweeping efficiency.

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:

- **Sweeper Selection Criteria:** More details on how the study will select the variety of sweepers to test.
- **Data Collection Controls:** Explanation of how variables influencing street dirt accumulation will be accounted for.
- **Long-Term Application:** A clearer framework for how municipalities beyond the ULAR watershed can use the study's findings.

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

- **Data Accuracy Measures:** Verify that effectiveness testing accounts for dust and dirt that may be blown away rather than removed.
- **Consideration of Pollutant Prioritization:** Include pollutant prioritization in route optimization based on TMDL and compliance needs.
- **Sweeper Selection Risks:** Address concerns about potentially eliminating effective sweepers too early in the testing process.

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

Two reviewers found the objectives achievable, while one noted potential challenges related to:

- **Providing adequate geographic representation in street dirt characterization.**
- **The need for strong project management to coordinate data collection and analysis within the study timeframe.**

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: Potential inconsistencies in sweeping records or pollutant accumulation data.**
 - 2. Sweeper Effectiveness Overstatement: Dust and debris displacement rather than actual removal could skew results.**
 - 3. Scaling Results Beyond ULAR: Verifying findings are applicable to other municipalities with different environmental conditions.**
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 will assist stormwater managers by:

- **Providing data-driven insights for selecting the most effective sweeper technologies.**
- **Identifying priority areas for enhanced street sweeping efforts based on pollutant accumulation.**
- **Supporting compliance with stormwater quality regulations and TMDL requirements.**

One reviewer noted that the study's results could be incorporated into Reasonable Assurance Analyses (RAAs) for MS4 Permit compliance.

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

The reviewers offered the following insights:

- **The study should verify that data collection does not interfere with existing street sweeping operations.**
- **Additional consideration should be given to how findings can be translated into operational changes for municipalities beyond Los Angeles.**
- **Evaluating the cost-benefit tradeoffs of different sweeping technologies would enhance the study's practical applications.**

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 "very good," emphasizing their relevance to urban runoff pollution reduction. The third reviewer rated them as "excellent," highlighting the study's potential to refine a widely used stormwater management practice.

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

Two reviewers rated the technical approaches as "very good," citing the study's well-structured methodology. The third found them "adequate," citing concerns about how effectively the study will control for data variability and provide accuracy in sweeper effectiveness testing.

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

One reviewer rated the study team as "very good," highlighting their expertise in stormwater management and street sweeping studies. Another reviewer rated them as "adequate," citing a lack of specific personnel details in the proposal. The third reviewer marked this section as "not applicable" due to insufficient information provided on team qualifications.