

## SAFE CLEAN WATER PROGRAM SCIENTIFIC STUDY PROPOSAL QUESTIONNAIRE

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

Title: **Data-Driven Resource Optimization and Planning System (DROPS)**

for **Los Angeles County**

Proposing Organization: **Foothill Municipal Water District**

Your summary of the Project Goals and Objectives:

**All three reviewers agree that the overarching goal of the DROPS study is to develop a low-cost, user-friendly planning tool that integrates remote sensing, topography, rainfall, land use, urban planning, stormwater infrastructure, and socioeconomic data. This tool aims to assist stormwater managers in identifying and prioritizing locations for implementing stormwater capture projects, reducing non-functional turf, enhancing infiltration, and addressing flood risks.**

**One reviewer emphasized the study's focus on increasing efficiency in stormwater project planning, while another highlighted the tool's potential to support decision-making by enabling stakeholders to evaluate site-specific benefits for stormwater capture and green infrastructure.**

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

**Two reviewers found the objectives clearly stated, requiring no additional clarification. However, one reviewer noted that the source and accessibility of datasets to be used in DROPS needs further elaboration. Specifically, they questioned whether data would be publicly sourced, contributed by stakeholders, or proprietary.**

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's goals align with increasing stormwater capture and reducing pollution. By streamlining site identification and planning, DROPS can lower the barriers to implementing green infrastructure and stormwater BMPs. One reviewer noted that this approach would not only enhance local water supply and groundwater recharge but also reduce pollutant loads and flood risks in urbanized areas.**

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 elements:**

1. **Data Integration and Modeling: Leveraging datasets such as remote sensing, topography, and land use to create a robust planning tool.**
2. **Pilot Testing: Conducting field measurements and calibration in the Verdugo and Raymond Basins to validate the DROPS model.**
3. **User-Centered Design: Developing a web-based platform with a Lean UX methodology to provide accessibility and functionality for end-users.**
4. **Iterative Development: Testing and refining the tool through phased implementation and**

**stakeholder feedback.**

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

**Two reviewers stated that the proposal sufficiently describes the technical approach. However, the third reviewer identified missing details, including:**

- **The methodology for calibrating and verifying the DROPS model in pilot basins.**
- **The specific metrics and thresholds for evaluating site efficacy.**
- **Security measures to protect the web-based platform from potential data breaches.**

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 agreed that the technical approach is sound, with some recommendations for improvement:**

- **Verification and Calibration: Provide more details on how DROPS will be validated during pilot testing and how these findings will inform its broader application.**
- **Equity Considerations: Provide an accessible tool to disadvantaged communities (DACs) and prioritize projects in these areas.**
- **Long-Term Maintenance: Address the sustainability of DROPS by including plans for ongoing updates and operational support.**

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

**Two reviewers found the objectives achievable within the one-year timeframe and budget, particularly given the study's focus on leveraging existing datasets and tools. However, the third reviewer noted that potential delays during data integration or model refinement might necessitate extending the timeline to two years. This flexibility could improve the robustness and usability of DROPS.**

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

**The reviewers identified several risks:**

1. **Data Access and Quality: Challenges in obtaining and integrating high-resolution datasets may limit model accuracy.**
2. **Model Validation: Validating the DROPS model's accuracy across diverse site conditions could require additional calibration efforts.**
3. **Sustainability: Securing long-term funding for operations and maintenance is critical to maintaining user confidence and system functionality.**

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 unanimously agreed that DROPS will provide actionable insights for stormwater managers, including:**

- **Prioritizing sites for BMP and LID implementation based on runoff capture potential and pollutant reduction.**
- **Identifying opportunities to replace non-functional turf with sustainable landscaping.**
- **Enhancing decision-making in DACs by streamlining access to relevant data and site evaluations.**

**One reviewer noted that DROPS' open-source nature will enable its continued application and adaptation beyond the scope of this study.**

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

**The reviewers provided the following perspectives:**

- **DROPS should include adaptive management capabilities to address evolving climate and urbanization challenges.**
- **Collaboration with academic and governmental institutions could enhance data quality and tool credibility.**
- **The study should document lessons learned during development to inform future iterations of DROPS or similar tools.**

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," highlighting DROPS' potential to simplify and enhance stormwater management. The third reviewer rated the objectives as "excellent," emphasizing the tool's alignment with SCWP goals and its capacity to reduce barriers to green infrastructure implementation.**

- 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 thorough planning and inclusion of stakeholder input. The third reviewer rated the approaches as "excellent," noting the integration of pilot testing and user-centered design.**

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

**All reviewers rated the study team as "excellent," highlighting their extensive experience in water resource management, data analytics, and stakeholder engagement. The team's collaboration with NASA Goddard and the California Data Collaborative was particularly commended for enhancing the project's technical rigor.**