Request for Information (RFI): Monitoring Solutions for Turf Transformation Demonstration Sites

RFI number: CalWEP-Turf_2601
Project name: Monitoring Solutions for Turf Transformation Demonstration Sites
Date of release: January 29, 2026
Response Deadline: February 20, 2026

Background

In California, we recognize that water challenges impact all communities, but not equally. Replacing lawns with drought tolerant landscaping helps build climate resilience, but can be expensive for frontline communities who are increasingly vulnerable to climate-change impacts.

The Land Resilience Partnership ("LRP") is a voluntary, non-regulatory incentive program which connects land stewards with technical experts to enhance properties, build community resilience, and contribute to a healthier watershed. The LRP program conducts a Landscape Transformation pilot program to directly help California's frontline communities by providing hands-on assistance to plan and install climate resilient landscapes at no cost to those communities.

The LRP program provides professional guidance in site assessment, project design, technical assistance, and construction oversight and direct install to maximize benefits and water savings to your site. The LRP originated in Tuolumne County in partnership with Watershed Progressive, the Tuolumne County Resource Conservation District (TCRCD) & the Department of Water Resources (DWR). In 2018, the TCRCD initiated two technical assistance programs for land-stewards providing access to local water strategies as well as technical guidance in implementation & ongoing maintenance.

The California Water Efficiency Partnership (CalWEP), in collaboration with the LRP, is looking to monitor and evaluate multiple benefits from the Landscape Transformation Pilot Program. The goal of CalWEP's project is to support the long-term success and expansion of turf transformation programs across California. This initiative aims to quantify water savings and document broader benefits including temperature reduction, stormwater capture, air quality improvements, and customer satisfaction, at up to 25 demonstration sites distributed across diverse climate zones and communities. These sites include both residential and commercial properties, spanning coastal and inland regions in both northern and southern California.

About CalWEP

CalWEP is a nonprofit organization that is a statewide leader committed to advancing urban water efficiency and conservation. Its mission is to maximize water savings across California by promoting innovative technologies and practices, supporting effective public policies, and providing research, training, and education to strengthen water management. CalWEP serves as a trusted resource for water agencies, offering tools, programs, and guidance to help them comply with state water use efficiency regulations and achieve long-term resiliency goals. Through its

member-driven approach, CalWEP fosters collaboration, advocacy, and practical solutions that empower agencies and communities to use water wisely.

Project Goals

Our objective is to deploy a comprehensive suite of monitoring tools and sensors that will collect robust, standardized data collection before and after landscape transformation.

Landscape transformation refers to the intentional conversion of existing turfgrass into climate-resilient, water-efficient systems that may include native and climate-appropriate plants, improved soil structure, alternative irrigation methods, and nature-based features such as bioswales or rain gardens. These transformations are not a single event, but a process that unfolds over time. For this project, CalWEP seeks to monitor conditions before, during, and after implementation to understand both immediate and evolving impacts. Pre-installation monitoring establishes baseline conditions such as water use, soil moisture, surface and air temperatures, and site characteristics. During installation and establishment, monitoring focuses on short-term disruptions and transitions, including irrigation changes, soil disturbance, and early plant performance. Post-installation monitoring captures near-term outcomes such as reduced water demand, improved soil moisture retention, temperature moderation, and stormwater behavior, while recognizing that many long-term benefits—such as ecosystem function, plant maturity, and sustained performance—may take years to fully materialize. As such, this effort prioritizes practical indicators that can be measured within the project timeframe, while also laying the groundwork for understanding longer-term benefits that may be more difficult to ascertain in the short term.

The resulting data will inform statewide best practices, support agency reporting needs, and strengthen future grant proposals. We seek solutions that balance rigor and practicality, integrating quantitative and qualitative metrics.

Reporting on this project will include both quantitative and qualitative metrics such as water savings (via billing data and flow sensors), soil moisture and retention, air and surface temperature, stormwater capture, air quality, plant survival, and customer experience. Each metric will be tracked using standardized methods and tools, with cost estimates and reporting value clearly defined.

Collected data will be integrated into digital tools, such as cloud dashboards and case study compendiums, to facilitate real-time visualization, accessibility, and statewide communication. Biannual progress reports and a final program impact report will synthesize findings across all demonstration sites, offering actionable recommendations and a “playbook” of metrics and methods for agencies to replicate and adapt.

Due to the specialized and emerging nature of landscape monitoring technologies applicable to this project, CalWEP recognizes that the number of viable solutions may be limited.

Scope of Work

The project wants to understand how these different metrics are impacted before, during, and after a landscape turf transformation project. Vendors are invited to provide information on monitoring solutions for one or more of the following metrics:

- Water savings related to landscape irrigation and project implementation (via billing data and real-time flow sensors)
- Soil moisture and retention
- Air temperature and microclimate
- Surface temperature (thermal imaging)
- Stormwater capture (infiltration capacity and modeling)
- Air quality (PM2.5/PM10)

CalWEP would rent equipment from vendors to collect data during the periods before and after landscape transformation. Vendors would own the monitoring equipment and would be responsible for installing the equipment at the start of the project and removing it at the end of the project period.

Site Details

Monitoring will occur at 25 sites, representing a mix of residential and commercial properties, distributed across California's varied climate zones. Sites are located in both urban and rural contexts, with approximately 17 in the north and 9 in the south, and a goal to have near-even split between coastal and inland regions*. Vendors should describe how their solutions can accommodate this geographic diversity, including any considerations for connectivity, data transmission, and environmental variability.

Estimated Project Sites*:

- 3 residential properties and 2 commercial properties in Mendocino County (Ukiah, Fort Bragg, etc.).
- 3 residential properties and 2 commercial properties in Butte County (Chico, Oroville, Biggs, Gridley areas)
- 1 commercial property in Mariposa-Tuolumne Foothill Communities
- 3 residential properties and 2 commercial properties in Sonoma County (rural areas of Santa Rosa, Valley of the Moon, Petaluma)
- 4 residential properties and 2 commercial properties in City of Chowchilla
- 2 residential properties in Ventura County
- 1 commercial property in Victorville

*Exact sites and quantities have not been identified, but this is the current target community and site class distribution.

To ensure the monitoring framework reflects California's diverse landscapes and communities, the project will explicitly address regional variability as well as urban vs. rural impacts. Benefits of turf transformation such as water savings, temperature reduction, stormwater capture, and air quality improvements, may differ significantly across climate zones, urban and rural contexts, and local water use practices. Therefore, the monitoring approach will be flexible and regionally sensitive, with site selection and metrics tailored to capture both statewide impacts and region-specific outcomes. Comparative analysis and stakeholder input will be used to highlight trends, outliers, and lessons learned unique to each region, supporting agencies in customizing their messaging and program design.

Technical Requirements

Please address the following in your response:

- Sensor/device specifications for each metric, including installation requirements and expected maintenance
    - Please identify spacing and visibility impact
    - Please identify if options exist for client installation of equipment
- Power and data source needs (e.g., battery, solar, AC, cellular, WiFi, LoRa)
- Data transmission and integration capabilities (cloud dashboards, APIs, required tools)
- Data security, sharing protocols, and accessibility for project partners
- Recommendations for pre- and post-installation data collection, including baseline and follow-up intervals
    - Frequency and access of data
    - Data format
- Support for periodic reporting (every 6 months) and final program impact analysis (Before and after program impact analysis)
- Estimated costs (installation, hardware, software subscriptions, replacements, and any ongoing fees).

Data Collection and Sharing

Vendors should describe their approach to data collection, storage, and sharing, including:

- Methods for ensuring data integrity and accessibility across multiple sites
- Protocols for integrating quantitative sensor data with qualitative interview results
- Options for real-time or dashboard-style data visualization for project partners and agencies
- Data ownership and accessibility parameters.

Timeline/Schedule

RFI Phase

Milestone	Date
RFI Issued	January 29, 2026
Vendor Question Period	February 2 – February 13, 2026
Deadline for Vendor Questions	February 13, 2026 (5:00 PM PT)
Responses to Vendor Questions Posted	February 17, 2026
RFI Responses Due	February 20, 2026 (5:00 PM PT)
Internal Review & Evaluation	February 23 – February 26, 2026
Anticipated identification of one or more qualified vendors for potential direct negotiation.	February 26, 2026

Implementation & Data Collection Timeline

Phase	Dates
Preparation of Monitoring Sites	March 1 – May 31, 2026
Pre-Installation Collection of Landscape Transformation Baseline Data	June – November 2026
Post-Installation Collection of Landscape Transformation Resukts Data	December 2026 – June 2027
Removal of Rented Data Collection Equipment from Monitoring Sites	July 2027

Response Instructions

Vendors are invited to submit information on the approach to this project. Please provide a detailed response addressing the Scope of Work below. Responses should include:

- Overview of your company's experience with similar projects
- Technical specifications and recommended solutions for each metric
- Power and connectivity options for varied site conditions
- Data management and reporting capabilities
- Estimated costs and timeline, including equipment rental fees (no equipment purchases should be included)
- Any additional recommendations for optimizing monitoring across diverse locations

Submission Deadline

RFI responses must be received no later than **February 20, 2026, at 5:00 PM Pacific Time**. Late submissions may not be reviewed.

Submission Method

Responses must be submitted electronically via email.

Submission Email Address

Melissa Matlock
melissa@calwep.org

Email Subject Line

Please use the following format in the subject line:
RFI Response – [Your Company]

Submission Format

- Responses should be submitted as a single PDF file
- Clearly label all sections to correspond with the RFI questions
- Supporting materials may be included as appendices

Questions

All questions and requests for interpretations or clarifications, either administrative or technical, must be submitted in writing to CalWEP via email [melissa@calwep.org] by February 13, 2026 by 5:00pm. CalWEP will post responses to all questions and requests on its website by February 17, 2026 at the following location: Procurement Opportunities » California Water Efficiency Partnership.

RFI Purpose and Limitations

CalWEP is issuing this RFI for informational and planning purposes. This RFI does not constitute a solicitation, offer, or commitment by CalWEP to procure goods or services. Submission of a response does not create any obligation on the part of CalWEP, nor does it entitle a respondent to, reimbursement or to participate in any future procurement. Notwithstanding the foregoing, CalWEP may use the responses to this RFI to later decide to enter into direct discussions or negotiations with one or more respondents to provide goods and services without issuing a further solicitation, or to take no further action, at its sole discretion.

All responses to this RFI become the sole property of CalWEP, but will not be publicly opened or disclosed. All information submitted in response to this RFI will be treated as non-confidential unless otherwise clearly marked. Respondents acknowledge that CalWEP may use information contained in RFI responses for planning, evaluation, and program development purposes without compensation. CalWEP, however, will not claim ownership of or use any identified proprietary technologies or products without first entering into a licensing or other agreement for any proposed use. Submission of a response indicates acceptance by the respondent of the conditions contained in this RFI, unless exceptions are clearly and specifically noted in the submission.