Stanford University

SUSTAINABILITY AND ENERGY MANAGEMENT

March 11, 2016

Ms. Julie Saare-Edmonds
Landscape & Green Building Programs Water Use Efficiency
California Department of Water Resources
901 P Street
Sacramento, CA 95814

SENT VIA ELECTRONIC MAIL
julie.saare-edmonds@water.ca.gov

Subject: Stanford University's Comments on the ITP Draft Recommendations on Landscape Water Use Reduction and Efficiency

Dear Ms. Saare-Edmonds,

The Department of Land, Buildings, & Real Estate (LBRE) at Stanford University (Stanford) appreciates the significant effort to produce the thorough and detailed subject recommendation report that the Independent Technical Panel (ITP) has drafted. We are pleased to have the opportunity to submit comments and hope to be more involved and collaborate with the Department of Water Resources (DWR) on this important topic in the future.

Stanford has a long standing water efficiency program, and has been working to increase water efficiency in irrigated landscaped areas for over 30 years. Stanford was an early adopter of weather based irrigation controllers across much of the campus. Between the water years of 2001 and 2013, the campus reduced total potable water consumption by 23% (from 2.73 million gallons per day [MGD] to 2.11 MGD, respectively). Furthermore, in response to the current drought and with start-up of the Stanford Energy System Innovations' Central Energy Facility, which is 70% more water efficient than the previous cogeneration facility, the average potable water demand had further decreased to 1.89 MGD during water year 2015. For over 20 years, Stanford has completed conversion of irrigated area water sources to allow the majority of campus to now be irrigated with non-potable irrigation water ("Lake Water"), sourced from local surface water and sustainably pumped local groundwater.

LBRE has listed several comments regarding the ITP report:

- Stanford recommends a clearer distinction of which recommendations apply solely to potable water use in landscape, throughout the report.
- The Stanford University campus has hundreds of irrigation water meters, and thousands of irrigation zones. The Section 5 recommendations for improvements in existing landscapes, and particularly the second recommended requirement for an owner of one acre or more of landscaped area to submit a landscape irrigation report, would be onerous for a large institutional water user such as Stanford. Additionally, the proposed submittal date of January 2017, and within 60 days of notification from the local agency, is unreasonable for large facilities or institutions due to the number of irrigation zones that would need to be evaluated and reported on. We recommend that this irrigation system overview and mapping be solely a recommendation as an internal practice for improved efficiency and operation, rather than a required submittal to DWR.
- In Section 6, Table 1, the definition for Special Landscaped Areas has been recommended for expansion to include "all" areas irrigated solely with non-potable water. The recommended

WATER RESOURCES & CIVIL INFRASTRUCTURE GROUP
327 Bonair Siding, Stanford, CA 94305-7272 T 650-725-8081 F 650-723-3191

definition revision is to include "[…] areas entirely irrigated with recycled water, graywater, or harvested rainwater […]". Stanford LBRE finds this definition too specific, and that it appears to unnecessarily exclude other non-potable sources such as local untreated surface water, local sustainably pumped and untreated groundwater, basement dewatering water, irrigation runoff, and captured urban and stormwater runoff.

- In Section 6, Table 1 the topic of Rainwater Retention, as currently recommended for revision, would overlap with existing stormwater regulations surrounding low impact development. We suggest some additional wording revisions within § 492.16 that allow for larger projects subject to low impact development regulations, to comply with those established stormwater regulations. Furthermore, capture and re-use of runoff exclusively for landscape irrigation purposes is challenging because of the need to store water until irrigation of landscaped areas is required. During the winter when water will be captured there is very little landscape irrigation demand to empty the cistern in anticipation of the next storm. This challenge is not addressed in the recommendation and as written burdens owners with significant costs for very little benefit.
- Recommendation 5 of Section 7, Plant Labeling, as related to post installation inspections and audits, would be difficult to successfully implement. With the increasing quantity of inspections required of local agencies, Stanford has found that long delays between planting and inspection often occur. As the time between planting and inspection increase, it becomes more likely that labels would be lost during landscape use, and this could require a significant effort of relabeling. Stanford recommends that a qualified inspector use the information in the planting plan to complete inspections.

Stanford Utilities appreciates the time that DWR and the ITP has invested in this process, however, we strongly recommend that additional attention be paid to the issues listed above. We are looking forward to continuing the improvement of the water efficiency of landscapes as we work together with DWR, and other stakeholder groups.

Feel free to contact me at (650) 723-9747 if you have questions or comments.

Sincerely,

Julia Nussbaum, PE
Manager, Water Quality, Efficiency, & Stewardship
Sustainability & Energy Management
Land, Buildings, & Real Estate
Stanford University

cc: Cathy Deino Blake (electronic copy), Stanford University, Architecture / Campus Planning & Design
Ted Tucholski (electronic copy), Stanford University, Grounds Services
Tom Zigterman (electronic copy), Stanford University, Water Resources & Civil Infrastructure