

Agenda Item 5e

Outdoor Potable Water Use

- **Statement of specific purpose, problem, rationale and benefits:**

Irrigation Efficiency – Improve Implementation of MWELO

The California Model Water Efficient Landscape Ordinance (MWELO) was issued by the California Department of Water Resources in 2009. The MWELO applies to “public agency projects and private development projects with a landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review” (§ 490.1 Applicability). The MWELO requirements include, but are not limited to, irrigation efficiency and planting selections. Local agencies are required to either implement the MWELO or develop and implement their own local WELO (CAL. GOV. CODE § 65595). However, according to interviews with a number of state and local officials, these requirements are not consistently implemented across the state.

The current CALGreen mandatory codes contain a requirement to comply with water budgets under a WELO or MWELO (section 5.304.1). We propose the following revisions to CALGreen to more thoroughly address opportunities to improve implementation of the MWEL:¹

- Clarify that audits required to comply with the MWELO must be completed by a third party or conducted by the local jurisdiction responsible for MWELO implementation. The California Urban Water Conservation Council (CUWCC) recommends that “All Certifications of Compliance shall include an in-person inspection by qualified, independent personnel”.²
- Include more specific verification procedures for the MWELO 71% irrigation system efficiency requirement (§ 492.13 Irrigation Efficiency). Potential options include, though are not necessarily limited to, the following:
 - The MWELO (§ 492.12 Irrigation Audit, Irrigation Survey, and Irrigation Water Use Analysis) states that an “irrigation audit report with the Certificate of Completion ... may include ... inspection, system tune-up, system test with distribution uniformity, reporting overspray or run off”. We propose to require these elements.
 - The Water Efficient Landscape Ordinance for the City of Palo Alto requires system checks for irrigation distribution efficiency (XII. Landscape Audit Report) to verify proper design and installation. Irrigation rates, a related metric, are determined based on catch-cans or manufacturer’s ratings under the IAPMO GPMCS. These options could also be considered by a local jurisdiction. We also note that a pending WaterSense specification could provide a benchmark for efficient landscape irrigation bodies and nozzles in the future, though an equipment specification would not by itself ensure proper installation.

Irrigation Efficiency – Pressure Devices

We understand that in many areas of the state, water pressures at irrigation devices such as sprinkler heads exceed the manufacturer’s recommendations and cause excessive water flow. Pressure regulating devices limit water pressure and can be installed at the main irrigation water supply connection or at a valve, and at least one manufacture includes this technology in the

¹ These revisions could supplement or replace existing section 5.304.1.

² California Urban Water Conservation Council. (2005, December). “Water Smart Landscapes for California AB 2717 Landscape Task Force Findings, Recommendations, & Actions.” (Recommendation 3).

irrigator itself. Installing a pressure device is an inexpensive and very effective solution recommended by the CUWCC (Recommendation 24).

The MWELo contains a requirement to design irrigation systems with a pressure device as needed (§ 492.7 Irrigation Design Plan (a)(1)), but does not specify appropriate pressure levels. We recommend requiring that plans for the landscape irrigation design document specify the type and location of pressure devices, consistent with the Landscape Irrigation Best Management Practices document³. This requirement is not clearly specified in §492.7 and will assist inspectors with code implementation. We also encourage stakeholder feedback on whether a specific numeric pressure limit should be included. For instance, International Green Construction Code section 404.1.2.5 states that “Microirrigation zones shall be equipped with pressure regulators that ensure zone pressure is not greater than 40 psi...”

- **Proposed code language for the 2015 Triennial Code Adoption Cycle**

LEGEND FOR EXPRESS TERMS

1. New California amendments: All such language appears *underlined and in italics*.
2. Repealed text: All such language appears in ~~strikeout~~.

NONRESIDENTIAL MANDATORY MEASURES

SECTION 5.304

OUTDOOR WATER USE

5.304.4. MWELo Verification.

1) Compliance with the Model Water Efficient Landscape Ordinance (MWELo), or a locally adopted WELo, shall be verified through inspection by the local jurisdiction or a third party auditor. The project applicant shall submit an irrigation audit report with the Certificate of Completion to the local agency and such report shall include, but is not limited to: inspection, system tune-up, system test with distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule.

2) The landscape irrigation plan shall specify the type and location of pressure devices.

³ Irrigation Association & American Society of Irrigation Consultants, “Landscape Irrigation Best Management Practices”, May 2014.