

## SECTION 6: STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELo) FUTURE REVISIONS & PROCESS UPDATES

### RECOMMENDATION #3: MWELo Future Revisions for the Next Review Cycle

#### Background

In response to the Governor Brown's emergency water conservation Executive Order B-29-15 in April 2015, the Department of Water Resources (DWR) undertook an extensive and expedited revision of the MWELo. The Independent Technical Panel (ITP) contributed a set of recommendations to DWR during the revision process in the summer of 2015. Many, but not all, of the ITP's suggested revisions were integrated into the new MWELo, released in July 2015. DWR has expressed a desire to regularly update MWELo to ensure that the model ordinance stays relevant while advancing water conservation and efficiency. The following recommendations support DWR in this goal by providing: 1) specific recommendations for the next MWELo update that will continue to maximize landscape water savings; and 2) a general recommendation for DWR to examine and improve the scope and impact of MWELo as it applies to existing landscapes.

#### Purpose Statement

Although the latest update to MWELo has taken effect only recently, several revisions or additions to the ordinance were previously recommended to DWR by the ITP or have been brought to the ITP's attention during the past year. Previously submitted recommendations were largely not accepted because they were outside the language of the Governor's Executive Order and/or the complexities of the proposals required more vetting by stakeholders than could be accomplished in the expedited timeframe for the 2015 MWELo update.

To increase the efficacy and relevance of MWELo, it is recommended that DWR incorporate the proposed changes to MWELo in Table 1 below in the next revision of MWELo, incorporating them as proposed amendments in a draft circulated for public comment. The most consequential of these recommendations are:

- That MWELo provide a statewide minimum standard for rooftop rainwater retention in new development, giving a boost to the "watershed approach" to sustainable landscaping and providing a consistent floor for any additional stormwater control measures that may be instituted through other means at the local, regional, or State level.
- That the additional water allowance first authorized in 1992 for "special landscape areas" be reduced to take into account two decades of progress in irrigation technology and plant propagation for lower water use.
- That landscapes associated with buildings undergoing major renovations be covered by the requirements of the ordinance.

The specific revisions are intended to strengthen the power of MWELo, when implemented and enforced, to achieve functional, high value, multi-benefit landscapes.

The ITP also reaffirms its recommendation that MWELo should effectively address water use efficiency on existing landscapes. It is recommended that DWR examine the structure of MWELo as it applies to existing landscapes. While it is critically important for MWELo to guide efficiency improvements in newly developed and renovated landscapes, the vast majority of landscape water use is – and will continue to be – attributable to landscapes installed before 2015. The ITP shares the view of many stakeholders that the standards for existing landscapes in the current MWELo are not actionable, and that a practical pathway to the application and enforcement of these standards needs to be found.

#### The Independent Technical Panel Recommends That:

- (1) DWR incorporate the changes recommended in Table 1 below in the next update of the MWELo, and
- (2) DWR examine the structure of the MWELo as it applies to existing landscapes, and report within one year to the Governor and legislature on its findings and recommendations for improving its effectiveness.

**Table 1:** Specific sections recommended for revision in the next MWELo update; an (ITP) annotation indicates the recommended revision was previously included in the Panel’s recommendations to DWR for the 2015 MWELo update.

Topic & Recommendation	References	Language	Justification
<b>Applicability</b> – expand MWELo triggers for existing landscapes to include high-cost building renovations	§490.1	(ITP) <u>addition: (a)(3) existing landscapes with a landscape alteration greater than 500 square feet associated with any additions or renovations to the building with a valuation exceeding \$200,000.00 requiring a building permit.</u>	This additional MWELo cost trigger would capture smaller but significant landscape renovations that would otherwise be excluded based on the 2,500 sq. ft. renovation size threshold. When major renovations are happening to a building, it is as if a new development is being constructed, and therefore this cost trigger is simply capturing landscape renovations that are similar in scope to new development at the same size threshold as the new development MWELo provision (500 sq. ft.).
<b>Evapotranspiration Adjustment Factor (ETAF) for Special Landscaped Areas</b> – reduce from 1.0 to 0.8	§491	(ITP) (s) The ETAF for a Special Landscape Area shall not exceed <del>±0</del> <u>0.8</u> .	Irrigation efficiency and water conservation should be cultivated as a standard practice for all irrigated plantings, including special landscaped areas that are capable of thriving with an ETAF of 0.8. By decreasing the ETAF for these areas from 1.0 (a level first adopted in 1992) to 0.8, MWELo would account for improvements in plant husbandry and irrigation technology and help instill a consistent conservation ethic, rather than maintaining a loophole for over-watering.
<b>Special Landscaped Areas</b> – expand the designation to include all areas irrigated solely with non potable water sources including graywater and harvested rainwater	§491	(ttt) “Special Landscape Area” (SLA) means an area of the landscape dedicated solely to: edible plants; recreational areas; areas entirely irrigated with recycled water, <u>graywater, or harvested rainwater</u> ; or water features using recycled water	By designating landscaped areas irrigated solely with non-potable water as ‘special landscaped areas, MWELo would incentivize the use of alternate water sources beyond municipality-provided recycled water such as graywater and rainwater. Additionally, areas partially or periodically irrigated with potable water should not receive this additional water allowance.
<b>Turfgrass Slope</b> – reduce allowable turf slope with spray irrigation from 25% to 10%	§492.6	(a)(1)(D) Turf is not allowed on slopes greater than <del>25%</del> <u>10%</u> where the toe of the slope is adjacent to an impermeable hardscape and where <del>25%</del> <u>10%</u> means 1 foot of vertical elevation change for every <del>4 feet</del> <u>10 feet</u> of horizontal length.	Irrigating turf with overhead spray on slopes of 25% without generating runoff is difficult. Additionally, turf areas with slopes of 25% are often not ‘functional’ in that they do not support many or most recreational activities. Given that MWELo seeks to eliminate overspray and runoff, and encourage alternatives to non-functional turf, it follows that turf should not be allowed on such steep slopes.
<b>Pool/Spa Covers</b> – require pool/spa covers	§492.6	(a)(2)(D) Pool and Spa Covers are <u>highly recommended</u> required.	Having pool and spa covers required on new development/renovations would increase their appropriate use by the end user. This is a straight-forward requirement that can significantly reduce pool and spa water consumption. As with any new pool, covered pools should be surrounded by a barrier of appropriate height and secure entry.
<b>Irrigation Schedule &amp; Hydrozone Maps</b> – require that a copy of the irrigation schedule and the associated hydrozone map is left on site with the automated irrigation controller itself	§492.10 and Appendix C (Part 3)	(a)(6) <u>addition: Current versions of irrigation schedules and landscape hydrozone maps shall be placed and maintained in the appropriate irrigation controller housing and shall include relevant information necessary to adjust the scheduling as needed considering all the parameters listed in §492.10(a)(4) and (5).</u>	The inclusion of readily accessible and detailed irrigation schedules, hydrozone maps, and scheduling tools - physically associated with the irrigation controller – would make it easier for landscape managers (internal staff or third-party contractors, e.g., auditors) to identify key scheduling factors and to set up and maintain an irrigation system to efficiently meet the needs of the landscape. The necessary institutional knowledge would be at the finger-tips of the individual(s) who is best able to implement best practices with the information provided. Although some ET-based controllers will keep the irrigation schedule embedded in its system, for conventional controllers, irrigation schedules are necessary.
<b>Irrigation Efficiency</b> – require no overspray or	§492.12	(c)(2) <u>addition: Prevention of overspray and runoff must be</u>	Though the requirement for no overspray or runoff is implied throughout MWELo (e.g., §492.7 (a)(1)(U)(3)), it should be

runoff to receive certificate of completion		<u>confirmed during the irrigation audit in order for the local agency to accept the certificate of completion.</u>	stated clearly that a local agency is not to approve a certificate of completion without an audit report that confirms the absence of overspray and runoff under regular irrigation scheduling conditions. If the irrigation system is not achieving efficient watering immediately after installation and original scheduling, it is unlikely to ever achieve compliance by improving efficiency over time.
<b>Audit Sampling – Add provisions for sample selection and acceptance criteria for landscapes approved on the basis of sampling</b>	§492.12	(b) In large projects or projects with multiple landscape installations (i.e., production home developments) an auditing rate of 1 in 7 lots or approximately 15% will satisfy this requirement. [revisions to be developed during MWELo update]	Revisit the audit sampling allowance for large projects to ensure the appropriate selection of the landscapes to be sampled for audit, the criteria for acceptance of aggregated results of sampling, and requirements for unaudited sites if any sampled sites fail the audit.
<b>Rainwater Retention – require the retention of rainwater from roofs</b>	§492.16	(d) <del>It is strongly recommended that</del> Landscaped areas <u>must</u> be designed for capture and infiltration capacity that is sufficient to prevent runoff from impervious <u>roof</u> surfaces (i.e., <del>roof and paved areas</del> ) from either: the one inch, 24-hour rain event, or the 85th percentile, 24-hour rain event [...]	A discrete and actionable step towards making the use of alternate water sources a common practice, this recommended revision would require property managers/developers to act on a downspout re-direct, moving their roof drainage into permeable ground or rainwater cisterns. This revision would augment potable water supplies used for irrigation and would help to replenish groundwater and lighten the burden on already-stressed stormwater systems.
<b>Public Education – provide information on how to hire trained landscaped professionals</b>	§492.17	(ITP) (a)(2), (b)(2) <u>addition: Information available shall include detailed specifications on how to hire trained and licensed landscape architects, contractors, designers and maintenance workers and the benefits of using such professionals.</u>	Permitted renovation applicants and model home owners should be provided with constructive educational material on how to hire qualified landscape workforce. These workforce hires should be qualified individuals who are capable of maintaining an MWELo-compliant landscape at peak efficiency and prime aesthetic appeal. It is well understood that landscapes need quality maintenance, and a homeowner provided with the information on how and why to hire qualified workforce has an advantage in achieving or sustaining the potential water efficiency benefits associated with MWELo compliance.