



MWELO

Appendix D

Peter Estournes CWM-E, LIC-M



The California Landscape Contractors Association

MWELO 2016 – 490.1: Changes

- **Purpose – focus is more on sustainability**
- **Applicability**
- **Prescriptive measures – Appendix D**
- **Documentation package**
- **Landscape design**
- **Irrigation design**
- **Water Budget**
- **Reporting**



MWELO 2016 – 490.1 Applicability



Prescriptive vs. Performance Requirements

- Remains triggered by need for building permit, plan check, design review
- Residential – 500sf or more
- Non-residential – 500sf or more
- Appendix D - simple form- for projects 2500sf or less incl. those using alt water sources

Appendix D – Sample Water Efficient Landscape Worksheet.

Appendix D – Prescriptive Compliance Option

- (a) This appendix contains prescriptive requirements which may be used as a compliance option to the Model Water Efficient Landscape Ordinance.
- (b) Compliance with the following items is mandatory and must be documented on a landscape plan in order to use the prescriptive compliance option:
- (1) Submit a Landscape Documentation Package which includes the following elements:
- (A) date
 - (B) project applicant
 - (C) project address (if available, parcel and/or lot number(s))
 - (D) total landscape area (square feet), including a breakdown of turf and plant material
 - (E) project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed)
 - (F) water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well
 - (G) contact information for the project applicant and property owner
 - (H) applicant signature and date with statement, "I agree to comply with the requirements of the prescriptive compliance option to the MWELO".
- (2) Incorporate compost at a rate of at least four cubic yards per 1,000 square feet to a depth of six inches into landscape area (unless contra-indicated by a soil test);
- (3) Plant material shall comply with all of the following:
- (A) For residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles and areas using recycled water; For non-residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 100% of the plant area excluding edibles and areas using recycled water;
 - (B) A minimum three inch (3") layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.
- (4) Turf shall comply with all of the following:
- (A) Turf shall not exceed 25% of the landscape area in residential areas, and there shall be no turf in non-residential areas;
 - (B) Turf shall not be planted on sloped areas which exceed a slope of 1 foot vertical elevation change for every 4 feet of horizontal length;
 - (C) Turf is prohibited in parkways less than 10 feet wide, unless the parkway is adjacent to a parking strip and used to enter and exit vehicles. Any turf in parkways must be irrigated by subsurface irrigation or by other technology that creates no overspray or runoff.
- (5) Irrigation systems shall comply with the following:
- (A) Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data.
 - (B) Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.
 - (C) Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturer's recommended pressure range.
 - (D) Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply.
 - (E) All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014, "Landscape Irrigation Sprinkler and Emitter Standard." All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.
- (c) At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.



MWELO 2016 – 490.1

Applicability – Prescriptive

Appendix D:

- Applies to landscapes 2500sf or less in size
- Prescriptive measures in lieu of performance requirements
- Check list approach to relieve pressure on building inspectors
- All items on list are mandatory

Appendix D – Sample Water Efficient Landscape Worksheet.

Appendix D – Prescriptive Compliance Option

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- (b) Compliance with the following items is mandatory and must be documented on a landscape plan in order to use the prescriptive compliance option:
- (1) Submit a Landscape Documentation Package which includes the following elements:
 - (A) date
 - (B) project applicant
 - (C) project address (if available, parcel and/or lot number(s))
 - (D) total landscape area (square feet), including a breakdown of turf and plant material
 - (E) project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed)
 - (F) water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well
 - (G) contact information for the project applicant and property owner
 - (H) applicant signature and date with statement, "I agree to comply with the requirements of the prescriptive compliance option to the MWELO".
 - (2) Incorporate compost at a rate of at least four cubic yards per 1,000 square feet to a depth of six inches into landscape area (unless contra-indicated by a soil test);
 - (3) Plant material shall comply with all of the following:
 - (A) For residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles and areas using recycled water; For non-residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 100% of the plant area excluding edibles and areas using recycled water;
 - (B) A minimum three inch (3") layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.
 - (4) Turf shall comply with all of the following:
 - (A) Turf shall not exceed 25% of the landscape area in residential areas, and there shall be no turf in non-residential areas;
 - (B) Turf shall not be planted on sloped areas which exceed a slope of 1 foot vertical elevation change for every 4 feet of horizontal length;
 - (C) Turf is prohibited in parkways less than 10 feet wide, unless the parkway is adjacent to a parking strip and used to enter and exit vehicles. Any turf in parkways must be irrigated by sub-surface irrigation or by other technology that creates no overspray or runoff.
 - (5) Irrigation systems shall comply with the following:
 - (A) Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data.
 - (B) Irrigation controllers shall be of a type which does not lose programming date in the event the primary power source is interrupted.
 - (C) Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturer's recommended pressure range.
 - (D) Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply.
 - (E) All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC 802-2014, "Landscape Irrigation Sprinkler and Emitter Standard." All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.
- (c) At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

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Applicability - Prescriptive



Appendix D:

- **Submit landscape documentation package**
- **4cy/1000sf compost requirement to 6” deep**
- **75% of plants to be a PF of .3 or less – residential.
100% to be a PF of .3 or less – commercial**
- **Minimum 3” of mulch**
- **25% turf – residential. None on slopes >25%. No turf in parking strips less than 10’ wide and must be subsurface irrigated**

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Applicability - Prescriptive



Appendix D: Irrigation Systems

- **WBIC or soil moisture based controllers w/non-volatile memory**
- **Pressure regulators required**
- **Manual shutoff valves close to POC**
- **Emission devices must meet national standards**
- **Overhead irrigation must be .65 DU or higher**
- **Areas <10' in width must use subsurface or other means for no overspray or runoff**
- **Provide irrigation schedule**
- **Provide schedule of landscape and irrigation system maintenance**
- **Commercial sites with Landscape areas >1000sf must have submeter**

MWELO 2016 – 492.3

Performance Requirements



Elements of Landscape Documentation Package:

1) Project Information:

- a) **Date**
- b) **Project applicant**
- c) **Project address**
- d) **Total landscape area**
- e) **Type of project (new, rehabilitated, public, etc)**
- f) **Water Supply type**
- g) **Check list of items within Landscape Documentation Package**
- h) **Project Contacts (applicant, property owner, etc.)**

MWELO 2016 – 492.3 Performance Requirements



Elements of Landscape Documentation Package:

Project Information cont'd:

- i) Applicant signature and date with the statement,
“I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package”

MWELO 2016 – 490.1
Applicability - Prescriptive



Appendix D: Final Inspection

At time of final inspection, applicant must provide owner of property with:

- **Certificate of Completion**
- **Certificate of installation**
- **Irrigation schedule**
- **Schedule for landscape maintenance**
- **Schedule for Irrigation system maintenance**