

## GLOSSARY OF TERMS LIST

### Terms for Consideration to Include in the ITP's Final Report

*APRIL 11, 2016 Draft*

1. **85th Percentile** means the storm event that is greater than 85% of the storms that occur based on measured local historical rainfall over a period of time. Stormwater best management practices are designed to capture and infiltrate storms up to the 85<sup>th</sup> percentile.
2. **Anti-burst Requirements** means a performance rating where sprinkler bodies are subjected to 1.5 times the maximum (not less than 150 psi) of maximum published operating pressure for 1 minute.
3. **Audit Sampling** means the rate at which representative sites are subjected to an irrigation audit within a multi-lot development.
4. **Automatic Rain Shut-off Device** means a “rain sensor” or “rain sensing shutoff device” component which automatically suspends an irrigation event when it rains.
5. **Baseline peak month** means the peak month of outdoor water needs used when calculating the baseline landscape water allowance using the EPA Water Budget Calculation Tool.
6. **Bio-swale** means a linear vegetated depression for capturing, filtering, conveyance and infiltration of stormwater.
7. **California-Friendly Sustainable Landscaping®** means a trademarked program of the Metropolitan Water District Southern California that emphasizes gardening with native and climate adapted non-native plants.
8. **Capacity Footprint** means the ability to supply an amount of water at any time and is related to infrastructure, energy use, water supply, planning and management of a water system.
9. **Conventional Controllers** means irrigation controllers that use time-based scheduling only, without sensors or other external modifiers.
10. **Customer Service Buildings** means buildings that are intended for frequent entrance by large numbers of private citizens. These buildings are high profile and offer opportunities for education and outreach.
11. **Drainage Check Valve** means a “check valve” or “anti-drain valve” located under a sprinkler head or other location in the irrigation system, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.
12. **Drought-Tolerant Landscaping** means a landscape with plants that can tolerate and recover from periods of drought or intermittent irrigation.
13. **Energy Star Portfolio Manager** means an online energy and water management tracking tool developed by the U.S. Environmental Protection Agency.
14. **EPA WaterSense Water Budget Tool** means an online interactive tool measure of efficiency and regional suitability for the amount of water applied to a landscape based on local climate data.

15. **ET-Based Controller** means an irrigation controller that uses evapotranspiration data to modify an irrigation schedule. The data may be historical ETo data, current data from onsite sensors, data from an external sources or a combination of data sources.
16. **ETo** means “reference evapotranspiration” or “ETO” means a standard measurement of environmental parameters which affect the water use of plants. ETo is expressed in inches per day, month, or year, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of determining the Maximum Applied Water Allowances so that regional differences in climate can be accommodated.
17. **Evapotranspiration Adjustment Factor (ETAF)** means an “ET adjustment factor” (ETAF) factor of 0.55 for residential areas and 0.45 for non-residential areas, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape.
18. **Functional Turf / Lawns** means areas of turfgrass that have designated functions for recreation, such as parks, playing fields and areas of public assembly.
19. **Functional, High-Value, Multi-Benefit Landscapes** means landscapes that have the ability to provide active and passive recreation, improve local environmental conditions and enhance the value of the property and community.
20. **Gray Water** means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to, wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers. Health and Safety Code Section 17922.12.
21. **Harvested Rainwater** means rain water that has been captured, diverted, and stored for future beneficial use.
22. **High Efficiency Nozzles** means irrigation nozzles that deliver 85% of the applied water to the targeted area as large droplets reducing misting, evaporation and wind-drift. The precipitation rate is no greater than 1 inch per hour. This slower application rate allows soil to absorb water before it runs off.
23. **Hydrozone Maps** means a layer of a landscape design and/ or irrigation design delineating areas or groupings of plants by their relative water needs.
24. **Infiltration Capacity** means the rate of downward flow of water into the soil at the air-soil interface.
25. **Integral Pressure Regulation** means having the mechanism to regulate pressure built into a sprinkler body.
26. **Irrigation Audit** means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission

uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule. The audit must be conducted in a manner consistent with the Irrigation Association's Landscape Irrigation Auditor Certification program or other U.S. Environmental Protection Agency "WaterSense" labeled auditing program.

27. **Irrigation Consultant** means a person who performs professional services such as consultation, investigation, reconnaissance, research, design, preparation of drawings and specifications and responsible supervision, where the dominant purpose of such service is the design of landscape irrigation, in accordance with accepted professional standards of public health and safety.
28. **Irrigation Efficiency (IE)** means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices.
29. **Irrigation Runtimes** means the time interval of application of irrigation water. This should be calculated based on irrigation system output rate and soil infiltration rate.
30. **Irrigation Survey** means an evaluation of an irrigation system that is less detailed than an irrigation audit. An irrigation survey includes, but is not limited to: inspection, system test, and written recommendations to improve performance of the irrigation system.
31. **Irrigation Water Use Analysis** means an analysis of water use data based on meter readings and billing data.
32. **Irrigation Schedules** means determining when to irrigate and how much water to apply, based upon measurements or estimates of soil moisture or crop water used by a plant.
33. **Landscape Architect** means a person who holds a license to practice landscape architecture in the state of California Business and Professions Code, Section 5615.
34. **Landscape Area** means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).
35. **Landscape Contractor** means a person licensed by the state of California to construct, maintain, repair, install, or subcontract the development of landscape systems.
36. **Landscape Designer** means a person permitted by the Business and Profession Code to prepare plans, drawings, and specifications for the selection, placement, or use of plants for single family dwellings. They may prepare drawings for the conceptual design and placement of tangible objects and landscape features. A landscape designer may not prepare construction documents, details, or specifications for tangible landscape objects or landscape features or prepare grading and drainage plans for the alteration of sites.
37. **Landscape Irrigation System** means all equipment required to convey water to or within the landscape area.
38. **Landscape Water Efficiency** means the ability of a landscape to use water efficiently through plant choices, soil health, rainwater retention, mulching and irrigation efficiency.

39. **Leadership in Energy and Environmental Design (LEED)** means a certification program that include a rating system to guide the design, construction, operation, and maintenance of green buildings, homes, and neighborhoods<sup>1</sup>
40. **Local Agency** means a city or county, including a charter city or charter county, that has land use authority and is responsible for adopting and implementing the Model Water Efficient Landscape Ordinance. The local agency is also responsible for the enforcement of this ordinance, including but not limited to, approval of a permit and plan check or design review of a project.
41. **Low Water Landscape** – please see water efficient landscaping
42. **Maximum Applied Water Allowance** means means the upper limit of annual applied water for the established landscaped area as specified in Section 492.4. It is based upon the area’s reference evapotranspiration, the ET Adjustment Factor, and the size of the landscape area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance.
43. **Model Water Efficient Landscape Ordinance (MWELO)** means a California regulation (Title 23) that is the basis for the minimum standards for landscape design and management.
44. **Net Zero Energy Approach for buildings** means an energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the on-site renewable exported energy~~limiting water consumption to captured rainwater and on-site treated recycled water and eliminating all water quality impacts from the site.~~
45. **Ornamental Turf / Lawns** means areas of turfgrass intended for esthetic purposes only based on size, slope, position or location that make recreation function unlikely or impractical.
46. **Outdoor Peak Month** means the month that has the highest outdoor water demand resulting from local climate. In much of California the outdoor peak demand is July or August.
47. **Peak Demand** means a period with the highest demand for water, may be based on time of day, day of the week or month of the year.
48. **Plant Factor** means a factor, when multiplied by ETo, estimates the amount of water needed by plants. For purposes of this ordinance, the plant factor range for very low water use plants is 0 to 0.1, the plant factor range for low water use plants is 0.1 to 0.3, the plant factor range for moderate water use plants is 0.4 to 0.6, and the plant factor range for high water use plants is 0.7 to 1.0.
49. **Point Source Emitters** means a drip emitter that discharges water at a single emission point.
50. **Potential Water Efficiency** means the expected effectiveness of compliance with MWELO and the water budget.
51. **Qualified Contractors and Maintenance Workforce Professionals** means landscape workers with the skills and knowledge to design, install, manage and maintain landscapes for maximum resource efficiency and maximum benefits. Skills and knowledge could be obtained through a combination of education, testing, licensure, certification, apprenticeship and experience.
52. **Rain Garden** means a garden bed that collects rain runoff from impervious surfaces and slopes and absorbs the water quickly into the soil.

53. **Rainwater Capture** means the intentional retention of rainwater for beneficial use. This contrasts with conveyance to discharge rain.
54. **Rainwater Retention** means retaining rainwater onsite for future beneficial use. It may be in constructed storage (cisterns, rain barrels) or through an infiltration approach (rain gardens, swales, dry wells).
55. **Recycled Water** (also known as “reclaimed water,” or “treated sewage effluent water”) means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.
56. **Rotors** means sprinklers that apply water in a pattern by means of one or more rotating streams to a defined landscape area.
57. **Significant Landscape Renovations** means a rehabilitation of landscapes involving both plant replacement and irrigation replacement throughout the majority of the site.
58. **Social Norms** means the rules of what is considered acceptable in a group or society and may change or modify over time.
59. **Soil Moisture-Based Sensor** (also known as “soil moisture sensing device” or “soil moisture sensor”) means a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.
60. **Special Landscape Area (SLA) means** an area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water.
61. **Stormwater Retention** means the collection of rainwater and other sources of surface waste water from multiple sites that has entered the stormwater conveyance system and saved for future beneficial use.
62. **Supplemental Irrigation** means the irrigation supplied when rain is not sufficient to meet the needs of plants.

— Sustainable Landscape means a stable and productive ecosystem that conserves the physical and biological processes occurring within that landscape system. Designed and managed sustainable landscapes maintain hydrological function, plant and animal diversity and biomass, soil integrity, and contribute to human wellness. To accomplish this, sustainable landscapes contain climate appropriate plants that can exist on rainfall and or other natural sources of water with little supplemental irrigation and can recover after periods of dry weather. The soil of a sustainable landscape contains adequate organic materials and air spaces, allowing for abundant micro- and macro-organisms and strong root systems. Any equipment, materials or practices used in constructing a sustainable landscape are highly efficient, sourced locally if possible, with a long life cycle and are recyclable or bio-degradable. A sustainable landscape will have a mix of plants including long lived trees to provide shade and store carbon and other plants that provide multiple benefits including wildlife habitat. A sustainable landscape will have a regenerative effect and improve the environmental conditions of an area. For the purposes of this report, this definition encompasses the definitions of California-Friendly Landscapes, Drought-Tolerant Landscapes, Water-wise Landscapes and Water Efficient Landscapes.

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~~63. Sustainable Landscaping means landscapes that are developed with regenerative practices to ensure continued benefits and minimize the need for inputs in perpetuity.~~

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64. **Sustainable Practices** means practice in the design, installation, management and maintenance of landscapes that minimize the inputs needed (water, energy, etc.) and maximize the benefits (shade, habitat, carbon storage) of landscaping.
65. **Traditional Landscape** means a landscape style that is reliant on significant inputs in water, fertilizer, and chemical pest control and maintenance labor. Often comprising of mostly non-native, non-climate adapted plants.
66. **Triennial Code Review Cycle** means that every three (3) years, one or more state agencies propose changes and through a public process, amend California Building Standards. IE: the Dept. of Housing and Community Development, Div. State Architect, Office Statewide Health Planning and Development, CA Department of Public Health , or Office of the State Fire Marshall.
67. **Urban Landscape** means planned and installed areas with trees, shrubs, turfgrasses and other plants in an urban area. Does not include natural undisturbed vegetation and commercial agricultural activities.
68. **Urban Ornamental Landscapes** means landscapes in an urban setting with esthetics as the primary function.
69. **User Dashboard** means an easy to read and interpret user interface on a website.
70. **Water-Wise Landscapes** means another term for water efficient landscapes.
71. **Water Efficient Landscaping** means landscaping that has been designed and installed with water saving practices and products, including [very low and](#) low water needing plants [as described in Water Use Classification of Landscape Species IV \(WUCOLS IV\)](#).
72. **Water-Wise Plant Material** means plants used in landscapes that are adapted to living with a low amount of water compared to ETo.
73. **WaterSense®** means a U.S. Environmental Protection Agency (US EPA) program to encourage water efficiency in the United States through the use of a special label on consumer products and specifications.
74. **Watershed Approach** means a natural approach to integrated and site-specific landscape design, construction, and maintenance that transcends water-use efficiency to address the related benefits of rainwater capture and use; reduction of pollution, greenhouse gases, and green waste; energy and cost savings; and human and wildlife habitat improvements. *\* from CUWCC- This should be consistent with Section 3 of our report. (Paul Herzog volunteered to work with ITP in refining this definition)*
75. **Weather-Based Controller** means controllers that monitor changing weather conditions with sensors to adjust an irrigation schedule. These products are also referred to as climate-based controllers, climatologically-based controllers and smart controllers.
76. **Weather-Based versus ET-based Controllers** means the term Weather-Based Irrigation Controller (WBIC) has replaced the term ET controller in most cases.