MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

Adopted by the Board on August 15, 2016 – Effective Date September 14, 2016

ORDINANCE NO. 172

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE MONTEREY PENINSULA WATER MANAGEMENT AMENDING REGIONAL WATER EFFICIENT LANDSCAPE REQUIREMENTS IN COMPLIANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 23, DIVISION 2, CHAPTER 2.7, CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE

FINDINGS

1. The Monterey Peninsula Water Management District was created to address ground and surface water resources in the Monterey Peninsula area, which the Legislature found required integrated management, and was endowed with the powers set forth in the Monterey Peninsula Water Management District Law (Chapter 527 of the Statutes of 1977, found at West's Water Code, Appendix, Section 118-1, et seq.).

2. The Monterey Peninsula Water Management District has adopted and regularly implements water conservation and efficiency measures which, inter alia, set standards for the installation of plumbing fixtures in New Construction, and requires retrofit or replacement of existing plumbing fixtures upon Change of Ownership, Change of Use, and Expansion of Use, and for existing Non-Residential uses. The Monterey Peninsula Water Management District has general and specific power to cause and implement water conservation activities as set forth in Sections 325 and 328 of the Monterey Peninsula Water Management District Law.

3. Water conservation in landscaping serves the public health, safety, and welfare by minimizing water use, eliminating Water Waste, and maximizing energy efficiency.

4. Assembly Bill 325 - The Water Conservation in Landscape Act of 1990 ("AB 325") was signed into law on September 29, 1990, requiring the California Department of Water Resources ("DWR") to develop and adopt a State Model Water Efficient Landscape Ordinance with provisions for water efficient landscape design, installation, and maintenance by January 1, 1992.

5. Assembly Bill 1881-The Water Conservation in Landscaping Act of 2006 ("AB 1881") required DWR to develop and adopt an updated State Model Water Efficient Landscape Ordinance ("MWELO"). Government Code Section 65595 as enacted by AB 1881 mandates that local governments either adopt the MWELO or a local ordinance that is at least as effective in water conservation by January 1, 2010. If neither has occurred by that date, the local agency is required to enforce the MWELO.

6. On January 29, 2010, MPWMD notified the DWR that the MPWMD intends to follow the MWELO.

7. On April 1, 2015, the Governor of the State of California issued Executive Order B-29-15 due to the continued severe drought conditions. This order required DWR to revise the MWELO through expedited regulation to increase water efficiency standards for new and retrofitted landscapes through more efficient Irrigation Systems, Graywater usage, onsite storm water capture, and by limiting the portion of landscapes that can be covered in Turf.

8. On July 15, 2015, the California Water Commission approved the revised MWELO. Local governments are required to enforce the revised MWELO as of December 15, 2015, unless the local agency has adopted a local ordinance. The purpose of this ordinance is to adopt a local ordinance that is at least as effective in water conservation as the revised MWELO and accordingly enable the District to apply this ordinance in lieu of the revised MWELO.

9. In accordance with Section 490 of the California Code of Regulations Title 23 (Waters), Division 2, Chapter 2.7, the purpose of the MWELO is to establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in New Construction (including new buildings with landscape or other new landscape, such as a park, playground, or Greenbelt without an associated building) and rehabilitated projects by encouraging the use of a watershed approach. Subsection "c" further states that such landscapes will make the urban environment resilient in the face of climatic extremes and result in an improved urban setting. Consistent with the State's purpose, this ordinance is intended to govern those types of landscapes that are ornamental in nature and typically found in urban settings.

10. In accordance with Sections 65595(c) (1) and 65597 of the Government Code, the Board of MPWMD hereby finds that this ordinance is at least as effective in conserving water as the revised MWELO. Pursuant to Section 65596 of the Government Code, specific elements were identified to be included within the revised MWELO. These elements

have been incorporated into this ordinance; therefore, it meets the minimum requirements of State law.

11. Rule 11, Definitions, is amended to reflect new terms specific to the Water Efficient Landscape Rule and to amend existing definitions for consistency with Monterey County's landscape ordinances. This action is necessary to ensure consistency throughout Monterey County.

12. Rule 21-B-3, Application for Permit to Connect to or Modify a Connection to a Water Distribution System, is amended to update the existing Rule and add language from the Model Water Efficient Landscape Ordinance.

13. Rule 23-B-2-(b), Mandatory Conditions, Action on Application for a Water Permit to Connect to or Modify an Existing Water Distribution System, is amended to reflect the permit requirements for Residential and Non-Residential landscaping.

14. Rule 142, Water Efficiency Standards, is amended to reflect amendments to the Model Water Efficient Landscape Ordinance.

15. This ordinance authorizes the Board of the Monterey Peninsula Water Management District to adopt, by separate resolution, a Landscape Manual entitled the "Monterey Peninsula Water Management District Landscape Manual – Standards, Guidelines and Specified Performance Requirements for Landscape Water Use and Irrigation" ("Landscape Manual"). The Landscape Manual has been developed to work in conjunction with the ordinance, to explain the regulations and provide technical information, and it could be updated periodically by resolution without requiring amendment to Rule 142.1.

16. This ordinance is applicable to Sites within the Monterey Peninsula Water Management District that install new or Refurbished Landscapes (as defined in this ordinance) after December 1, 2015.

17. This ordinance is consistent with and supportive of other water conservation policies and regulations set forth in the Monterey County Code ("MCC") that apply in the coastal and inland zones.

18. This Ordinance is exempt from review under the California Environmental Quality Act ("CEQA") (California Public Resources Code Section 21000 et seq.). Pursuant to State CEQA Guidelines section 15307 (14 Cal. Code Regs. §15307), this Ordinance is covered by the CEQA Categorical Exemption for actions taken to assure the maintenance,

restoration, enhancement, or protection of a natural resource where the regulatory process involves procedures for protection of the environment.

NOW THEREFORE be it ordained as follows:

ORDINANCE

Section One: **Short Title**

This ordinance shall be known as the **2016 Water Efficient Landscape Requirements Ordinance** of the Monterey Peninsula Water Management District.

Section Two: **Statement of Purpose**

The Monterey Peninsula Water Management District enacts this ordinance to add the State's and Monterey County's water efficient landscape requirements to the District's Rules and Regulations in keeping with the District's role as the Monterey Peninsula's regional water manager.

Section Three: **Amendment of Rule 11, Definitions**

Rule 11 shall be amended as shown in bold italics (***bold italics***) and strikethrough (~~strikethrough~~). The following terms shall be capitalized throughout the Rules and Regulations of the District. Numbering is provided for reference only and shall not be included in Rule 11.

1. ***APPLIED WATER – "Applied Water" shall mean the portion of water supplied by the Irrigation System to the landscape.***

2. ***AS-BUILT DRAWINGS – "As-Built Drawings" shall mean landscape drawings prepared by the contractor that show, in red ink, on-Site changes to the original landscape construction documents.***

3. ***AUTOMATIC IRRIGATION CONTROLLER – "Automatic Irrigation Controller" shall mean a timing device used to remotely control valves that operate an Irrigation System. Automatic Irrigation Controllers are able to self-adjust and schedule irrigation events using either Evapotranspiration (weather-based) or soil moisture data.***

4. ***BACKFLOW PREVENTION DEVICE – "Backflow Prevention Device" shall mean a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water.***

5. ***CALIFORNIA INVASIVE PLANT INVENTORY – "California Invasive Plant Inventory" shall mean the California Invasive Plant Inventory maintained by the California Invasive Plant Council.***

6. ***CERTIFIED IRRIGATION DESIGNER – "Certified Irrigation Designer" shall mean a person certified to design Irrigation Systems by an accredited academic institution, a professional trade organization or other program such as the United States Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer program.***

7. CERTIFIED LANDSCAPE IRRIGATION AUDITOR – "Certified Landscape Irrigation Auditor" shall mean a Person certified ~~by the Irrigation Association or the California Landscape Contractors Association~~ to perform ~~L~~*l*andscape ***Irrigation*** ~~Water~~ Audits ***by an accredited academic institution, a professional trade organization or other program such as the United States Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.*** ~~and prepare Landscape Water Budgets~~.

8. ***CHECK VALVE – "Check Valve" shall mean a 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. Check Valve is also known as an anti-drain valve.***

9. ***COMMON INTEREST DEVELOPMENTS – "Common Interest Developments" shall mean community apartment projects, condominium projects, planned developments, and stock cooperatives per Civil Code Section 1351.***

10. ***COMPOST – "Compost" shall mean the safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.***

11. ***CONTROLLER – "Controller" shall mean an automatic timing device used to remotely control valves or heads to operate an Irrigation System. A weather-based Controller is a Controller that utilizes Evapotranspiration or weather data to make adjustments to irrigation schedules. A self-adjusting irrigation Controller is a Controller that uses onsite sensor data (e.g., soil moisture) to adjust irrigation schedules.***

12. ***DISTRIBUTION UNIFORMITY – "Distribution Uniformity" shall mean the measure of the uniformity of irrigation water over a defined area.***

13. DRIP IRRIGATION – "Drip Irrigation" shall mean ~~a low pressure, low volume watering system that applies water slowly to plants, near or at ground level, to minimize runoff and loss to evaporation.~~ ***any non-spray Low Volume Irrigation System utilizing emission devices with a Flow Rate measured in gallons per hour. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.*** The term "Drip Irrigation" shall have the same meaning as "Micro Irrigation" and "Trickle Irrigation."

14. ***ECOLOGICAL RESTORATION PROJECT – "Ecological Restoration Project" shall mean a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.***

15. ***EFFECTIVE PRECIPITATION (Eppt) – "Effective Precipitation" ("Eppt") shall mean the portion of total precipitation which becomes available for plant growth. Effective Precipitation is also known as "useable rainfall."***

16. ***EMITTER – "Emitter" shall mean a Drip Irrigation emission device that delivers water slowly from the system to the soil.***

17. ***ESTABLISHED LANDSCAPE – "Established Landscape" shall mean the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.***

18. ***ESTABLISHMENT PERIOD OF THE PLANTS – "Establishment Period of the Plants" shall mean the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth. Native habitat mitigation areas and trees may need three to five years for establishment.***

19. ESTIMATED TOTAL WATER USE ("ETWU") – "Estimated Total Water Use" ***("ETWU") shall mean the total water used for the landscape based on the plants used in the landscape design.*** ~~is determined based upon the area of Landscaping and the types of plant material used in the Landscaping (as~~

~~determined by Water Use Classification of Landscape Species (WUCOLS) classifications). The sum of the ETWU calculated for all hydrozones shall not exceed MAWA.~~

20. EVAPOTRANSPIRATION ADJUSTMENT FACTOR or ET ADJUSTMENT FACTOR – "Evapotranspiration Adjustment Factor" or "ET Adjustment Factor" ("ETAF") shall mean, ***except for Special Landscape Areas,*** a factor of ***0.55 for Residential projects and 0.45 for Non-Residential projects that, when applied to Reference Evapotranspiration, adjusts for Plant Water Use Factors and Irrigation Efficiency.*** ~~0.7, that, when applied to reference Evapotranspiration, adjusts for 11-16 Monterey Peninsula Water Management District plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the Landscape. A combined plant mix with a site-wide average of 0.5 is the basis of the plant factor portion of this calculation. For purposes of the ETAF, the average irrigation efficiency is 0.71. Therefore, the ET Adjustment Factor is (0.7) = (0.5/0.71). ETAF for a special Landscape Area as defined in the Model Water Efficient Landscape Ordinance shall not exceed 1.0. ETAF for existing non-rehabilitated Landscapes is 0.8.~~

21. ***EVAPOTRANSPIRATION RATE – "Evapotranspiration Rate" shall mean the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.***

22. ***FLOW RATE – "Flow Rate" shall mean the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.***

23. ***FLOW SENSOR – "Flow Sensor" shall mean an inline device installed at the supply point of the Irrigation System that produces a repeatable signal proportional to Flow Rate. Flow Sensors must be connected to an Automatic Irrigation Controller, or flow monitor capable of receiving flow signals and operating Master Shut-Off Valves. The combination Flow Sensor/Controller may also function as a landscape Water Meter or sub-meter.***

24. ***FRIABLE – "Friable" shall mean a soil condition that is easily crumbled or loosely compacted down to a minimum depth per planting material requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.***

25. ***FUEL MODIFICATION PLAN GUIDELINE – "Fuel Modification Plan Guideline" shall mean guidelines from a local fire authority to assist residents and businesses that are developing land or building structures in a fire hazard severity zone.***

26. GRAYWATER -- "Graywater" shall mean untreated waste water which 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.*** ~~come into contact with toilet waste~~. "Graywater" includes***, but is not limited to; waste water*** ~~used water~~ from bathtubs, showers, Bathroom Washbasins, clothes washing machines and laundry tubs. It does not include waste water from Kitchen Sinks and Dishwashers~~, photo lab sinks, or laundry water from soiled diapers~~. ***Health and Safety Code Section 17922.12.*** "Graywater" shall have the same meaning as "Greywater."

27. ***HIGH WATER USE PLANT – "High Water Use Plant" shall mean any plant categorized as high water need by the Water Use Classification of Landscape Species guide ("WUCOLS").***

28. ***HYDROZONE – "Hydrozone" shall mean a portion of the Landscape Area having plants with similar water needs and rooting depths served by a valve or set of valves with the same schedule. A Hydrozone may be irrigated or non-irrigated.***

29. ***INFILTRATION RATE – "Infiltration Rate" shall mean the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).***

30. ***INVASIVE PLANT SPECIES – "Invasive Plant Species" shall mean a species of plants not historically found in California that spreads outside cultivated areas and can damage environmental or economic resources and is listed as an Invasive Plant in either the California Invasive Plant Inventory; USDA invasive, noxious weeds database, or the Landscape Manual.***

31. ***IRRIGATION AUDIT – "Irrigation Audit" shall mean an in-depth evaluation of the performance of an Irrigation System conducted by a Certified Landscape Irrigation Auditor. An Irrigation Audit shall include, 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.

32. ***IRRIGATION DESIGN PLAN – "Irrigation Design Plan" (IE) shall mean an irrigation plan and drawings designed and signed by a licensed Landscape Architect, Certified Irrigation Designer, licensed Landscape Contractor, or any other person authorized to design an Irrigation System (see Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code).***

33. ***IRRIGATION EFFICIENCY – "Irrigation Efficiency" shall mean 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. The Irrigation Efficiency is 0.75 for overhead spray devices and 0.81 for drip systems.***

34. ***IRRIGATION METER – "Irrigation Meter" shall mean a separate meter that measures the amount of water used for irrigation.***

35. ***IRRIGATION SURVEY – "Irrigation Survey" shall mean an evaluation of an Irrigation System that is less detailed than an Irrigation Audit.***

36. ***IRRIGATION WATER USE ANALYSIS – "Irrigation Water Use Analysis" shall mean an analysis of water use data based on meter readings and billing data.***

37. ~~LANDSCAPING – "Landscaping" shall mean the arrangement of plants and other materials that may result in outdoor water use.~~

38. ***LANDSCAPE AND IRRIGATION MAINTENANCE SCHEDULE – "Landscape and Irrigation Maintenance Schedule" shall mean a document provided to the property owner and submitted with the Certificate of Completion for landscape installation that provides information about routine inspection; auditing, adjustment and repair of the Irrigation System and its components;***

aerating and dethatching Turf areas; topdressing with Compost, replenishing Mulch; fertilizing; pruning; weeding in all Landscape Areas, and removing obstructions to emission devices.

39. ***LANDSCAPE ARCHITECT – "Landscape Architect" shall mean a person who holds a license to practice landscape architecture in the State of California (California Business and Professions Code Section 5615).***

40. LANDSCAPE AREA -- "Landscape Area" ***shall*** mean all the planting areas, ~~t~~***Turf*** areas, and ~~w~~***W***ater ~~f~~***F***eatures in a Landscape ***Design*** ~~p~~***P***lan subject to the Maximum Applied Water Allowance and the Estimated Applied Water Use calculations. 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. ~~o~~***O***pen ~~s~~***S***paces and existing Native Vegetation).

41. ***LANDSCAPE CONTRACTOR – "Landscape Contractor" shall mean a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.***

42. ***LANDSCAPE DESIGN PLAN – "Landscape Design Plan" shall mean a plan (and drawings) that (1) delineates and labels each Hydrozone; (2) identifies each Hydrozone as low, moderate, high water, or mixed water use; (3) identifies any Recreational Areas; (4) identifies areas permanently and solely dedicated to edible plants; (5) identifies areas irrigated with Recycled Water; (6) identifies type of Mulch and application depth; (7) identifies soil amendments, type, and quantity; (8) identifies type and surface area of any Water Features; (9) identifies hardscapes (Pervious and non-Pervious); (10) identifies applicable storm water Best Management Practices; (11) identifies any applicable rain harvesting or catchment technologies; and (12) identifies any applicable Graywater discharge piping, system components and area(s) of distribution. A Landscape Design Plan must be signed by a licensed Landscape Architect, Certified Irrigation Designer, licensed Landscape Contractor, or any other person authorized to design an Irrigation System (see Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code). "Landscape Design Plan" shall also be known as a "Planting Plan."***

43. ***LANDSCAPE MANUAL – "Landscape Manual" shall mean the "Monterey Peninsula Water Management District Landscape Manual – Standards and Specified Performance Requirements for Water Efficient Landscape Water Use and Irrigation."***

44. ***LANDSCAPE PACKAGE– "Landscape Package" shall mean the landscape Water Permit application and materials required to be submitted for review and approval by the MPWMD.***

45. ~~LANDSCAPE WATER AUDIT – "Landscape Water Audit" shall mean an action taken by a Landscape Irrigation Auditor to determine reasonable outdoor water use.~~

46. ***LANDSCAPE WATER METER – "Landscape Water Meter" shall mean an inline device installed at the irrigation supply point that measures the flow of water into the Irrigation System and is connected to a totalizer to record water use.***

47. ***LATERAL LINE – "Lateral Line" shall mean the water delivery pipeline that supplies water to the Emitters or sprinklers from the valve.***

48. ***LOCAL WATER PURVEYOR – "Local Water Purveyor" shall mean any entity, including a public agency, city, county or private water company that provides retail water service.***

49. ***LOW VOLUME IRRIGATION SYSTEM – "Low Volume Irrigation System" shall mean the application of irrigation water at low pressure through a system of tubing or Lateral Lines and low-volume Emitters such as drip, drip lines, and bubblers. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.***

50. ***LOW WATER USE PLANT – "Low Water Use Plant" shall mean any plant categorized as low water need by the Water Use Classification of Landscape Species ("WUCOLS") guide.***

51. ***MAJOR LANDSCAPE PROJECT – "Major Landscape Project" shall mean Landscape projects with an aggregate Landscape Area greater than two thousand five hundred (2,500) square feet.***

52. ***MASTER SHUT-OFF VALVE – "Master Shut-Off Valve" shall mean an automatic valve installed at the irrigation supply point which controls water flow into the Irrigation System. When this valve is closed, water will not be supplied to the Irrigation System. A Master Shut-Off Valve will greatly reduce any water loss due to a leaky station valve.***

53. MAXIMUM APPLIED WATER ALLOWANCE – "Maximum Applied Water Allowance" shall mean the upper limit of annual ~~a~~*A*pplied ~~w~~*W*ater for the ~~E~~established Landscape A~~a~~rea. It is based upon the area's ***R***~~r~~eference Evapotranspiration, the ET Adjustment Factor, and the size of the Landscape Area. ~~The Maximum Applied Water Allowance shall be calculated using the equation: MAWA = (ETo) (0.62) [(0.7 x LA) + (0.3 x SLA)]. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with Recycled Water are subject to the MAWA with an ET Adjustment Factor not to exceed 1.0.~~

54. MICRO IRRIGATION – "Micro Irrigation" shall mean ~~a low pressure, low volume watering system that applies water slowly to plants, near or at ground level, to minimize runoff and loss to evaporation.~~ ***any non-spray Low Volume Irrigation System utilizing emission devices with a Flow Rate measured in gallons per hour. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.*** The term "Micro Irrigation" shall have the same meaning as "Drip Irrigation" and "Trickle Irrigation."

55. ***MICROCLIMATE – "Microclimate" shall mean the climate of a small, specific area that may contrast with the climate of the overall Landscape Area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.***

56. ***MINOR LANDSCAPE PROJECT – "Minor Landscape Project" shall mean landscape projects with an aggregate Landscape Area less than or equal to two thousand five hundred (2,500) square feet.***

57. ***MODERATE WATER USE PLANT – "Moderate Water Use Plant" shall mean any plant categorized as moderate water need by the Water Use Classification of Landscape Species ("WUCOLS") guide.***

58. MULCH – "Mulch" shall mean any ***organic*** material such as leaves, bark, straw, ***Compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite*** left loose and applied to the soil ***surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion*** ~~to reduce evapotransporation. Organic mulches include pine bark, compost, and wood chips. Inorganic mulches include rock, cobble gravel and synthetic water-holding soil additives.~~

59. ***NON-RESIDENTIAL LANDSCAPE – "Non-Residential Landscape" shall mean landscapes in commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes portions of common areas of common interest developments with designated Recreational Areas.***

60. ***OPERATING PRESSURE – "Operating Pressure" shall mean the pressure at which the parts of an Irrigation System are designed by the manufacturer to operate.***

61. ***OVERHEAD SPRINKLER IRRIGATION SYSTEM – "Overhead Sprinkler Irrigation System" or "Overhead Irrigation System" shall mean systems that deliver water through the air (for example pop-ups, impulse sprinklers, spray heads, rotors, and micro-sprays).***

62. ***OVERSPRAY – "Overspray" shall mean the irrigation water that is delivered beyond the Landscape Area, wetting pavements, walks, structures, or other non-landscaped areas.***

63. ***PARKWAY – "Parkway" shall mean the area between a sidewalk and the curb or traffic lane. It may be planted or unplanted, and with or without pedestrian egress.***

64. ***PERVIOUS – "Pervious" shall mean any surface or material that allows the passage of water through the material and into the underlying soil.***

65. ***PLANT WATER USE FACTOR – "Plant Water Use Factor" shall mean a value, when multiplied by "Reference Evapotranspiration," that estimates the amount of water needed by plants. The Plant Water Use Factor range for very Low Water Use Plants is less than 0.1, the Plant Water Use Factor range for Low Water Use Plants is 0.1 to 0.3, the Plant Water Use Factor range for***

Moderate Water Use Plants is 0.4 to 0.6, and the Plant Water Use Factor range for High Water Use Plants is 0.7 to 1.0. Plant Water Use Factors are derived from the publication "Water Use Classification of Landscape Species." Plant Water Use Factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources.

66. ***PLANTING PLAN – "Planting Plan" shall have the same meaning as Landscape Design Plan.***

67. ***RAIN SENSING SHUTOFF DEVICE – "Rain Sensing Shutoff Device" shall mean a component of an Irrigation System which automatically suspends irrigation when it rains. The term "Rain Sensing Shutoff Device" shall have the same meaning as the term "Rain Sensor."***

68. RAIN SENSOR – "Rain Sensor" ***or "Rain Sensing Shutoff Device"*** shall mean a ~~device that measures rainfall and overrides the irrigation cycle of an Irrigation System, thus turning the Irrigation System off, when a predetermined amount of rain has fallen.~~ ***component of an Irrigation System which automatically suspends irrigation when it rains. The term "Rain Sensor" shall have the same meaning as the term "Rain Sensing Shutoff Device."***

69. RECYCLED WATER – "Recycled Water" shall mean ***treated or recycled waste water of a quality suitable for Sub-potable uses such as landscape irrigation and Water Features. This water is not intended for human consumption.*** ~~water that originates from a Sub-potable Source of Supply such as wastewater treated to the tertiary level~~.

70. ***RECORD DRAWINGS – "Record Drawings" shall mean landscape documents prepared by the Landscape Architect that reflect on-Site changes the contractor noted in the As-Built Drawings. They are often compiled as a set of on-Site changes made for the owner per the owner-architect contract.***

71. ***RECREATIONAL AREA – "Recreational Area" shall mean areas, excluding private single family Residential areas, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf course tees, fairways, roughs, surrounds and greens.***

72. ***REFERENCE EVAPOTRANSPIRATION – "Reference Evapotranspiration" shall mean a standard measurement of environmental parameters which affect the water use of plants. Reference Evapotranspiration is expressed in inches per day, month, or year, and is an estimate of the Evapotranspiration of a large field of four to seven inches tall, cool-season grass that is well watered. Reference Evapotranspiration is used as the basis of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.***

73. ***REHABILITATED LANDSCAPE – "Rehabilitated Landscape" shall mean any re-landscaping of existing landscapes where the modified Landscape Area is equal to or greater than two thousand five hundred (2,500) square feet.***

74. ***RESIDENTIAL LANDSCAPE – "Residential Landscape" shall mean landscape surrounding single or multifamily homes.***

75. ***RUNOFF – "Runoff" shall mean water which is not absorbed by the soil or landscape to which it is applied and flows from the Landscape Area. For example, Runoff may result from water that is applied at too great a rate (application rate exceeds Infiltration Rate) or when there is a slope.***

76. ~~SENSOR-BASED IRRIGATION CONTROLLER – "Sensor-Based Irrigation Controller" shall mean a Smart Controller designed to use real-time measurements of one or more locally measured factors to adjust irrigation timing. The factors typically considered include: temperature, rainfall, humidity, solar radiation, and soil moisture. A Sensor-Based Irrigation Controller often has historic weather information (i.e. an ET curve) for the site location programmed into memory and then uses the sensor information to modify the expected irrigation requirement for the day.~~

77. ~~SIGNAL-BASED IRRIGATION CONTROLLER – "Signal-Based Irrigation Controller" shall mean a signal-based Smart Controller that receives a regular signal of prevailing weather conditions via radio, telephone, cable, cellular, web, or pager technology. The signal typically comes from a local weather station (or series of weather stations) and usually updates the current Evapotranspiration rate to the controller.~~

78. ~~SMART CONTROLLER – "Smart Controller" shall mean a weather-based device (typically a "timer") that automatically controls an outdoor Irrigation~~

~~System. Smart Controllers use weather, site or soil moisture data as a basis for determining an appropriate watering schedule. Smart Controllers (commonly referred to as ET controllers, weather-based irrigation controllers, smart sprinkler controllers, and water smart controllers) are a new generation of irrigation controllers that utilize prevailing weather conditions, current and historic Evapotranspiration, soil moisture levels, and other relevant factors to adapt water applications to meet the actual needs of the plants.~~

79. ***SOIL TEXTURE – "Soil Texture" shall mean the classification of soil based on its percentage of sand, silt, and clay.***

80. ***SOILS MANAGEMENT REPORT – "Soils Management Report" shall mean an analysis of the existing soil conditions relative to horticulture (versus agriculture or structural integrity) resulting in recommendations of appropriate soil amendments.***

81. SOIL MOISTURE SENS~~OR~~***ING DEVICE*** – "Soil Moisture Sens~~or~~***ing Device***" shall mean a device ~~used to~~ ***that*** measure***s*** ~~soil moisture content~~ ***the amount of water in the soil. The device may also suspend or initiate an irrigation event***~~, triggering a Smart Controller to water only when moisture levels recede to a level below that required to sustain Landscaping~~.

82. ***SPECIAL LANDSCAPE AREA (SLA) – "Special Landscape Area" or "SLA" shall mean an area of the landscape irrigated with Recycled Water, Water Features using Recycled Water, and areas dedicated to active play such as parks, sports fields, golf courses, and where Turf provides a playing surface.***

83. ***SPRINKLER HEAD – "Sprinkler Head" shall mean a device which delivers water through a nozzle.***

84. ***STATIC WATER PRESSURE – "Static Water Pressure" shall mean the pipeline water supply pressure when water is not flowing.***

85. ***STREET MEDIAN – "Street Median" shall mean an area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.***

86. ***STORM WATER CONTROL FACILITY – "Storm Water Control Facility" shall mean a structural feature intended to control or reduce storm water Runoff and associated pollutants, to induce or control the infiltration or***

Groundwater recharge of storm water, or to eliminate illicit or illegal non-storm water discharges into storm water conveyances.

87. ***STORM WATER CONTROL MEASURE – "Storm Water Control Measure" shall mean any structural or non-structural strategy, practice, technology, process, program or other method intended to control or reduce storm water Runoff and associated pollutants, or to induce or control the infiltration or Groundwater recharge of storm water, or to eliminate illicit or illegal non-storm water discharges into storm water conveyances. Storm Water Control Measures include Storm Water Control Facilities.***

88. ***SWING JOINT – "Swing Joint" shall mean an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.***

89. TRICKLE IRRIGATION - "Trickle Irrigation" shall mean shall mean ~~a low pressure, low volume watering system that applies water slowly to plants, near or at ground level, to minimize runoff and loss to evaporation.~~ ***any non-spray Low Volume Irrigation System utilizing emission devices with a Flow Rate measured in gallons per hour. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.*** The term "Trickle Irrigation" shall have the same meaning as "Drip Irrigation" and "Micro Irrigation."

90. ***TURF – "Turf" shall mean a ground cover surface of mowed grass and does not include artificial Turf surfaces. For example, Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses and Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass are warm-season grasses.***

91. ***VALVE – "Valve" shall mean a device used to control the flow of water in the Irrigation System.***

92. ~~LANDSCAPE~~ WATER BUDGET – "~~Landscape~~ Water Budget" shall mean a maximum annual water allowance in gallons per year~~, determined upon completion of a Landscape Water Audit by a Landscape Irrigation Auditor. The Landscape Water Budget shall~~ ***that*** take***s*** into consideration the types of plants, ~~soil condition,~~ Evapotranspiration Rates and Irrigation System.

93. ***WATER CONSERVING PLANT SPECIES – "Water Conserving Plant Species" shall mean a plant species identified as having a low Plant Water Use Factor.***

94. ***WATER EFFICIENT LANDSCAPE WORKSHEET – "Water Efficient Landscape Worksheet" shall mean the form used in the Landscape Package to calculate the Water Budget for a landscape. The form is found in Appendix B of the Landscape Package.***

95. ***WATER FEATURE – "Water Feature" shall mean a design element where open water performs an aesthetic or recreational function. Water Features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and Swimming Pools where water is artificially supplied. The surface area of Water Features is included in the high water use Hydrozone of the Landscape Area. Constructed facilities used for onsite waste water treatment or Storm Water Control Measures that are not irrigated and used solely for water treatment or storm water retention are not considered Water Features.***

96. ***WATERING STATION – "Watering Station" shall mean an area served by one valve or by a set of valves that operate simultaneously.***

97. ***WATERING WINDOW – "Watering Window" shall mean the time of day irrigation is allowed.***

98. WEATHER BASED IRRIGATION CONTROLLER -- "Weather Based Irrigation Controller" shall mean an Irrigation System ~~controller~~ ***component*** that ~~evaluates~~ ***uses*** local weather conditions and ***landscape conditions*** ~~Evapotranspiration (ET) rates~~ to ~~create a site specifi c irrigation schedule~~ ***adjust irrigation schedules automatically to actual conditions on the Site or historical weather data***.

99. ***WUCOLS – "WUCOLS" shall mean the Water Use Classification of Landscape Species guide published by the University of California Cooperative Extension and the California Department of Water Resources 2014, as may be periodically updated.***

Section Four: **Amendment of Rule 20, Permits Required**

Rule 20-B shall be amended as shown in bold italics (***bold italics***) and strikethrough (~~strikethrough~~) to add the Model Water Efficient Landscape Ordinance requirement for Rehabilitated Landscape Areas.

B. PERMITS TO CONNECT TO OR MODIFY A CONNECTION TO A WATER DISTRIBUTION SYSTEM

Before any Person connects to or modifies a water use Connection to a Water Distribution System regulated by the District or to any Mobile Water Distribution System regulated by the District or to any Mobile Water Distribution System, such Person shall obtain a written Permit from the District or the District's delegated agent, as described in District Rules 21, 23 and 24. The addition of any Connection and/or modification of an existing water Connection to any Water Distribution System permitted and regulated by the District shall require a Water Permit.

The following actions require a Water Permit:

1. Any change in use, size, location, or relocation of a Connection or Water Measuring Device which may allow an Intensification of Use or increased water consumption.

2. Each use of an On-Site credit or Water Use Credit.

3. Any modification to the number or type of Residential water fixtures shown in Rule 24, Table 1, Residential Fixture Unit Count Values, with two exceptions: (1) replacement of a Standard Bathtub with a Shower Stall and vice versa; (2) removal of a lawful water fixture, and (3) replacement of a Large Bathtub previously documented by the District with a Standard Bathtub or a Shower Stall.

4. Any Landscaping changes ***(added Landscape Area or changes in Hydrozones to higher water use plants than submitted on landscape plans reviewed and approved by the District) that will*** result~~ing~~ in an Intensification of Use when a ~~L~~landscape plan has been reviewed and approved as a component of a Water Permit.

5. Rehabilitation of existing Landscape Area over 2,500 square-feet that is associated with a Jurisdiction's building or ~~L~~*l*andscape permit, plan check, or design review.

6. Any Change of Use or any expansion of a Non-Residential use to a more intensive use as determined by Rule 24, with the exception of Temporary Structures and Temporary Exterior Restaurant Seats that are not occupied or in use for longer than thirty (30) consecutive days.

7. Installation of new water fixtures (Rule 24, Table 1) in a Residential use, other than replacement of existing water fixtures.

8. Use of water from a Mobile Water Distribution System.

Section Five: **Amendment of Rule 23-B-2-(b), Mandatory Conditions, Action on Application for a Water Permit to Connect to or Modify an Existing Water Distribution System**

Rule 23-B-(2)-(b), shall be amended as shown in bold italics (***bold italics***) and strikethrough (~~strikethrough~~) to incorporate requirements of the California Model Water Efficient Landscape Ordinance.

2. Construction of a New Structure.

   a. All new water use permitted by the District shall install a separate Water Meter to each User.

   b. All Non-Residential New Structures ~~receiving a Water Permit after January 1, 2009,~~ that include irrigated ~~areas beyond ten (10) feet of any building~~ ***landscapes of 1,000 square-feet or greater*** shall utilize a separate Water Meter ***supplied by the Water Distribution System*** to measure all exterior water uses.

      All Residential irrigated landscapes of 5,000 square-feet or greater shall install a sub-meter to measure outdoor water use.

   c. All New Structures receiving a Water Permit after January 1, 2009, shall have separate water supply lines that tee off after the ~~w~~*W*ater ~~m~~*M*eter to supply fire suppression service and domestic service. This configuration shall facilitate installation of a Flow Restrictor

in the domestic service without interfering with the fire suppression service.

d. All Water Permits requiring deed restrictions shall also include a Notice and Deed Restriction titled "Provide Public Access to Water Use Data."

Section Six: **Amendment of Rule 21-B-3, Application for Permit to Connect to or Modify a Connection to a Water Distribution System**

Rule 21-B-3, shall be amended as shown in bold italics (***bold italics***) and strikethrough (~~strikethrough~~) to incorporate requirements of the California Model Water Efficient Landscape Ordinance.

3. New development projects that include Landscape Areas of 500 sq. ft. or more and existing ~~r~~***R***ehabilitated Landscape Areas over 2,500 square-feet that are associated with a Jurisdiction's building or landscape permit, plan check, or design review shall comply with ***Rule 142.1. The Jurisdiction shall be responsible for CEQA review, if applicable.*** ~~the Model Water Efficient Landscape Ordinance. The Applicant shall submit a complete Landscape Documentation Package which shall include:~~

~~a. Project information including the date, project Applicant, total Landscape Area, water supply, water purveyor;~~

~~b. A Landscape Water Budget which includes the Maximum Applied Water Allowance (MAWA) and Estimated Applied Water Use (ETWU) calculations with three copies of the Landscape plan;~~

~~c. Soil analysis and recommendations (from a soil laboratory);~~

~~d. Landscape design/project notes; plant legend; plant count;~~

~~e. Landscape design hydrozone water use;~~

~~f. Irrigation design/irrigation project notes;~~

~~g. Grading design plan from an Engineer;~~

Section Seven: **Addition of Rule 142.1, Water Efficient Landscape Requirements**

Rule 142.1 (shown in ***bold and italic type***) shall be added to the Rules and Regulations.

A. ***Purpose.*** ***The purpose of this Rule is to provide landscape standards that minimize water use, eliminate Water Waste, and reduce storm water Runoff by requiring low water landscape plantings, design, and irrigation methods. Pursuant to Government Code Section 65595, this Rule is intended to be at least as effective in water conservation as the State's Model Water Efficient Landscape Ordinance and is intended to apply in lieu of the State Model Water Efficient Landscape Ordinance.***

B. ***Applicability.*** ***The provisions of this Rule shall apply to all of the following categories of landscaping:***

1. ***New Construction projects requiring a grading permit, building permit or design approval with an associated new aggregate Landscape Area equal to or greater than five hundred (500) square feet;***

2. ***New landscapes requiring a grading permit, building permit or design approval with an aggregate Landscape Area equal to or greater than five hundred (500) square feet;***

3. ***Rehabilitated Landscapes having an aggregate Landscape Area equal to or greater than two thousand five hundred (2,500) square feet that are associated with a grading permit, building permit or design approval.***

C. ***Exceptions.*** ***This Rule does not apply to:***

1. ***Local, state or federal historical sites listed in either the County's Local Official Register of Historic Resources, the California Register of Historic Places, or the National Register of Historic Places;***

2. ***Ecological Restoration Projects that do not require a permanent Irrigation System;***

3. ***Plant collections, as part of botanical gardens and arboretums open to the public;***

4. ***Agricultural cultivation activities including, but not limited to, the preparation and planting of vegetation on agricultural lands for the production of food, products, or feed for either human or animal consumption;***

5. ***Construction of structures that do not include changes in existing landscape;***

6. ***Changes in use of an existing structure that do not include changes to existing landscape;***

7. ***Private edible plant gardens and/or orchards for personal and individual consumption;***

8. ***Constructed wetlands or other Landscaped Areas that are not irrigated and used solely for onsite waste water treatment;***

9. ***New, existing or rehabilitated storm water quality projects that are not irrigated and used solely for the purpose of improving Runoff quality and/or retaining Runoff for onsite infiltration;***

10. ***Natural areas including, but not limited to: open space, native vegetative areas, and Pervious or impervious hardscapes that do not require a permanent Irrigation System;***

11. ***Erosion control activities (e.g., hydroseeding) that do not require permanent Irrigation Systems;***

12. ***Existing landscapes installed prior to December 1, 2015 are strongly encouraged to reduce water consumption pursuant to this Rule.***

13. ***New cemeteries are exempt from the specific requirements of this Rule but are required to engage in landscape maintenance practices that foster long-term water conservation, such as performing routine repair and adjustment of Irrigation Systems, conducting audits of water use, and prescribing the amount of water applied per landscaped acre.***

D. ***Landscape Manual. The Board may by resolution adopt, and may from time to time amend, the "Monterey Peninsula Water Efficient Landscape Manual – Standards, Guidelines and Specified Performance Requirements for Landscape Water Use and Irrigation" ("Landscape Manual") to establish guidelines to explain and implement this Rule. The Landscape Manual shall explain the specific procedures and technical requirements of this Rule. The Landscape Manual shall include the elements of the Landscape Package for Minor and Major Landscape projects, Water Efficient Landscape Worksheet, Soils***

Management Report, Planting Design Plan, Irrigation Design Plan, grading information, Minor Certificate of Completion, and Certificate of Completion. If any provisions of the Landscape Manual conflict with any provisions of this Rule, the provisions of this Rule shall prevail.

E. <u>Minor Landscapes – Minor Landscape Package Submittal Requirements</u>

1. Minor Landscape Projects have an aggregate Landscape Area less than or equal to two thousand five hundred (2,500) square feet.

2. Any Minor Landscape Project may conform to this Rule either by complying with the full performance standards of the Major Landscape Package or by complying with reduced requirements of the Minor Landscape Package (Appendix D of the Landscape Manual). If the project is complying with the Minor Landscape Package requirements, the requirements must be documented on the Landscape Design Plan.

3. Minor Landscape Projects using treated or untreated Graywater or rainwater captured on Site to meet the entire landscape water requirement (Estimated Total Water Use) are subject only to Appendix D Section (5) of the Landscape Manual.

4. Prior to issuance of a grading permit, building permit, or design approval associated with Minor Landscape Projects subject to this Rule, the Applicant shall submit a Minor Landscape Package to the District for review and approval. The District shall approve the package once it has been verified that the proposed Minor Landscape Project complies with the provisions of this Rule. The approved Landscape Package Submittal Form as provided in the Landscape Manual must be used.

5. If the District denies the Minor Landscape Package application, the District shall provide information to the project Applicant regarding resubmittal with the appropriate information or right of appeal.

6. The Minor Landscape Package shall include:

a. Date prepared;

b. The project Applicant and contact information, name of and contact information for property owner if different than project Applicant;

c. Project location (and Assessor's Parcel Number);

d. Project type (i.e., Residential, Non-Residential, Rehabilitated Landscape);

e. Total square footage of Landscape Area including a breakdown of Turf, and other plant material;

f. Water supply type (e.g., Potable, Recycled Water, Well) and identify the local retail water purveyor if not served by a private Well.

g. The Minor Landscape Package shall contain the following statement that shall be signed and dated by the project Applicant:

h. "I agree to comply with the Monterey Peninsula Water Management District Minor Landscape requirements including, but not limited to, the use of climate appropriate, non-invasive species, and limited Turf."

7. Landscape Design Plans and Irrigation Design Plans submitted as part of the Minor Landscape Package are not required to be drawn by licensed architect or contractor.

8. Minor Landscape Project Landscape Design. Landscape Design Plans shall include and demonstrate how the landscaping is consistent with the following information:

a. The landscape design shall incorporate Compost at a rate of at least four (4) cubic yards per one thousand (1,000) square feet to a depth of six (6) inches into the Landscape Area, unless contra-indicated by a Soils Management Report.

b. A Soils Management Report is not required if Compost is incorporated into the soil per this section of Rule 142-E.

c. ***Residential projects shall include installation of climate adapted plants that require occasional, little or no summer water (average WUCOLS Plant Water Use Factor 0.3) for seventy-five percent (75%) of the plant area, excluding areas solely dedicated to edible plants and areas using Recycled Water.***

d. ***Non-Residential projects shall include installation of climate adapted plants that require occasional, little or no summer water (average WUCOLS Plant Water Use Factor 0.3) for one hundred percent (100%) of the plant area, excluding areas solely dedicated to edible plants and areas using Recycled Water.***

e. ***Turf shall be limited to twenty percent (20%) of the Landscape Area or up to one thousand five hundred (1,500) square feet, whichever is less, for Residential projects. Planting of Turf shall be prohibited in the following conditions:***

(1) ***Non-Residential Minor Landscape Projects;***

(2) ***Slopes exceeding ten percent (10%);***

(3) ***Planting areas eight (8) feet wide or less; and***

(4) ***Street Medians, traffic islands, planter strips, or bulb-outs of any size.***

f. ***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.***

9. ***Minor Landscape Irrigation System Design. Inefficient landscape irrigation resulting in Water Waste is prohibited. Therefore, Irrigation Systems shall comply with the following requirements:***

a. ***Automatic irrigation Controllers are required and must use Evapotranspiration or Soil Moisture Sensing Device data and a Rain Sensor.***

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 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 American National Standards Institute (ANSI) standard, American Society of Agricultural and Biological Engineers'/International Code Council's (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.

f. Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produce no Runoff or Overspray.

g. Non-Residential Minor Landscape Projects with Landscape Areas of one thousand (1,000) square-feet or greater shall require installation of a Water Meter supplied by the Water Distribution System to measure all exterior water uses.

10. Certificate of Completion. Upon completion of installation of the Minor Landscape Project, but prior to occupancy or final of associated grading or building permits, the project Applicant shall provide the property owner and the District with a Minor Landscape Certificate of Completion.

a. The Minor Landscape Certificate of Completion shall include all of the following: Project information, a Certificate of Installation, an irrigation schedule, and a landscape and irrigation maintenance schedule.

b. The approved form for the Minor Landscape Certificate of Completion as provided in the Landscape Manual must be used.

c. A Minor Landscape Certificate of Completion shall not be accepted by the District unless it is complete and meets all the requirements of this section.

d. The District shall approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the District shall provide the project Applicant with the opportunity to make correction(s). Decisions to deny a Certificate of Completion are appealable decisions.

e. Prior to the final of grading or building permits associated with a Minor Landscape Project subject to this Rule, the Minor Landscape Project shall pass a final inspection by the District.

11. Obligations of Property Owner, Successors and Assignees and.

a. All required landscaping and the Irrigation System shall be reasonably maintained for the life of the project to ensure water use efficiency. Information about how to maintain the project shall be provided in the Landscape and Irrigation Maintenance Schedule.

b. Plants lost due to disease, destruction, or lifecycle shall be replaced and shall comply with all adopted standards for size, species, and irrigation. Replacement with different species is acceptable without amendment to the approved Minor Landscape Package provided that the water use is lower or remains the same as that which was previously approved. Modifications to landscaping that would result in higher water use than approved in the Minor Landscape Package shall require an amendment or new Water Permit as required by the District's Rules.

F. Major Landscapes – Major Landscape Package Submittal Requirements

1. Prior to issuance of a grading permit, building permit, or design approval associated with Major Landscape Projects subject to this Rule,

the Applicant shall submit a Major Landscape Package to the District for review and approval. The Major Landscape Package shall contain all information and documentation, in sufficient detail, as specified in this section of Rule 142.1 and the Landscape Manual. The General Manager shall approve the package after verifying that the proposed landscape project complies with the provisions of this Rule and the provisions of the Landscape Manual. The approved Landscape Package Application and Submittal Form provided in the Landscape Manual shall be used.

2. *The Major Landscape Package shall include general project information such as the date prepared, project Applicant and contact information, name of the property owner if different than project Applicant, project location and Assessor's Parcel Number, project type (i.e. Residential, Non-Residential, Rehabilitated Landscape), total square footage of Landscape Area including a breakdown of Turf and other plant material, and water supply or water purveyor.*

3. *A Landscape Design Plan shall be submitted by the Applicant as part of the Major Landscape Package meeting the requirements set forth in Rule 142.1-H.*

4. *An Irrigation Design Plan shall be submitted by the Applicant as part of the Major Landscape Package meeting the requirements set forth in Rule 142.1-I.*

5. *Major Landscape Projects shall meet the Water Efficient Landscape Requirements set forth in this Rule.*

6. *A Soils Management Report containing information set forth in Rule 142.1-H-5-b shall be submitted as part of the Major Landscape Package.*

7. *Upon completion of the Major Landscape Project, a Certificate of Completion shall be submitted to the District consistent with Rule 142.1-N.*

8. *Prior to Jurisdiction final of a grading permit or building permit for a Major Landscape Project subject to this Rule, the Major Landscape Project shall pass a final inspection by the District.*

9. ***The Major Landscape Package shall contain the following statement:***

"I agree to submit a complete Landscape Package that complies with the Monterey Peninsula Water Management District Major Landscape Requirements including, but not limited to, the use of climate appropriate, non-invasive species, and limited Turf."

This verification shall be signed and dated by the project Applicant.

10. ***The following statement shall be recorded on the title of the property via a "Notice and Deed Restriction Regarding Limitation on Use of Water on a Property":***

"Subject Property shall comply with MPWMD Rule 142.1, Water Efficient Landscape Requirements. Any increase in the size of the Landscape Area or any change in the plant species to a higher water use species shall require a new or amended Water Permit."

G. ***Obligations of Property Owner, Successors and Assignees.***

1. ***All required landscaping and the Irrigation System shall be reasonably maintained for the life of the project to ensure water use efficiency. Information about how to maintain the project shall be provided in the Landscape and Irrigation Maintenance Schedule.***

2. ***Plants lost due to disease, destruction, or lifecycle shall be replaced and shall comply with all adopted standards for size, species, and irrigation. Replacement with different species is acceptable without amendment to the approved Major Landscape Package provided that the Plant Water Use Factor is lower or remains the same as that which was previously approved. Modifications to landscaping that would result in higher water use than approved in the Major Landscape Package shall require a new or amended Water Permit.***

H. ***Landscape Design Plans for Major Landscapes. For the efficient use of water, Landscape Design Plans for Major Landscape Projects shall meet all the requirements listed in this section and in the Landscape Manual. The Landscape Design Plan shall be signed by a licensed Landscape Architect, a***

licensed Landscape Contractor, or any other person authorized to design a landscape.

1. *The Landscape Design Plan shall include grading design that minimizes soil erosion, Runoff, and Water Waste.*

2. *Landscape Design Plan Minimum Requirements.*

   a. *Hydrozone areas shall be designated on the Landscape Design Plan by number, letter, or other designation;*

   b. *Identify each Hydrozone as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the landscape shall be included in the low water use Hydrozone for the Water Budget calculation;*

   c. *Identify Recreational Areas;*

   d. *Identify areas permanently and solely dedicated to edible plants;*

   e. *Identify areas irrigated with Recycled Water;*

   f. *Identify type of Mulch and application depth;*

   g. *Identify soil amendments, type and quantity;*

   h. *Identify type and surface area of Water Features;*

   i. *Identify hardscapes (Pervious and non-pervious);*

   j. *Identify location, installation details, and 24-hour retention or infiltration capacity of any applicable storm water Best Management Practices that encourage on-Site retention and infiltration of storm water. Project Applicant shall refer to the Jurisdiction, waste water processor and/or Regional Water Quality Control Board for information on any applicable storm water technical requirements. Storm water Best Management Practices are encouraged in the Landscape Design Plan;*

k. Identify any applicable rain harvesting or catchment technologies;

l. Identify any applicable Graywater discharge piping, system components and area(s) of distribution;

m. Landscape Design Plans shall contain the following statement signed by a licensed Landscape Architect, a licensed Landscape Contractor, or any other person authorized to design a landscape:

"I have complied with the Monterey Peninsula Water Management District Water Efficient Landscape Requirements including, but not limited to, the use of climate appropriate, non-invasive species, and limited Turf."

3. <u>Plant Material</u>.

a. Any plant may be selected for the landscape, providing the Estimated Total Water Use in the Landscape Area does not exceed the Maximum Applied Water Allowance.

b. Turf shall be limited to twenty percent (20%) of the Landscape Area or up to one thousand five hundred (1,500) square feet, whichever is less, unless the Turf area is designated as a Special Landscape Area and is dedicated as a Recreational Area. Planting of Turf is prohibited in the following conditions:

(1) Slopes exceeding ten percent (10%);

(2) Planting areas eight (8) feet wide or less; and

(3) Street Medians, traffic islands, planter strips, or bulb-outs of any size.

c. All non-Turf plants shall be selected, spaced, and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site.

d. Invasive Plant Species are strictly prohibited and eradication of Invasive Plant Species in the Landscape Area is highly encouraged.

e. Selected plants shall include the use of native and/or climate appropriate species.

f. Landscape planting shall include the use of drought resistant species.

g. Where appropriate, landscape planting shall include the use of fire resistant plant species and shall be consistent with fire safe landscaping required by the designated fire district and Chapter 18.56 (Wildfire Protection Standards in State Responsibility Areas) of the Monterey County Code.

h. Plants with similar water use needs shall be grouped together in distinct Hydrozones. Where irrigation is required, the distinct Hydrozones shall be irrigated with separate valves.

i. Plants with low and high water use shall not be included in the same Hydrozone.

j. Plants with high water use shall be prohibited in Street Medians.

4. Water Features.

a. Recirculating water systems shall be used for Water Features.

b. Where available, Recycled Water shall be used as a source for decorative Water Features.

c. Surface area of a Water Feature shall be included in the High Water Use (Plant Water Use Factor) Hydrozone area of the Water Budget calculation.

d. Pool and spa covers are highly recommended.

5. ***Soil Preparation, Mulch and Amendments.***

a. ***Landscape Design Plans shall include soil preparation methods, Mulch, and amendments recommended in the Soils Management Report.***

b. ***Soils Management Report Requirements for Major Landscapes. A Soils Management Report shall be obtained by the Applicant and submitted with the Major Landscape Package. In order to promote healthy plant growth and prevent excessive erosion and Runoff, the Soils Management Report shall be consistent with the required information outlined in this section and the applicable sections of the Landscape Manual.***

(1) ***The Soils Management Report shall be prepared by a certified laboratory and evaluate soils relative to horticulture.***

(2) ***The soil analysis shall include: soil texture, Infiltration Rate, pH, total soluble salts, sodium, and percentage of organic matter.***

(3) ***Soil samples shall be from the Site and analyzed to identify quality top soil, soil limitations, and soil composition information necessary for planting.***

(4) ***Projects with multiple landscape installation (i.e. subdivisions) shall either conduct a soil sampling rate of one (1) in seven (7) lots, or approximately fifteen percent (15%) will satisfy this requirement.***

(5) ***Projects with large Landscape Areas shall have a soil sample at a rate of fifteen percent (15%).***

(6) ***The Soils Management Report shall include recommendations for soil amendments based on the conditions of the Site and the intended planting.***

(7) ***The Soils Management Report shall be completed in a timely manner and made available to the professionals***

preparing the Landscape Design Plan and the Irrigation Design Plan.

(8) If significant mass grading is not planned, the Soil Management Report shall be submitted to the District as part of the Landscape Package.

(9) If significant mass grading is planned, the Soil Management Report shall be submitted to the District as part of the Certificate of Completion.

(10) The project Applicant shall submit documentation verifying implementation of Soil Management Report recommendations to the District with the Certificate of Completion.

c. ***Mulch and Amendments.***

(1) Prior to the planting of any materials, compacted soils shall be transformed to a Friable condition. On engineered slopes, only amended planting holes need to meet this requirement.

(2) Soil amendments shall be incorporated according to recommendations of the Soils Management Report and what is appropriate for the plants selected.

(3) For landscape installations, Compost at a rate of a minimum of four cubic yards per 1,000 square-feet of permeable area shall be incorporated to a depth of six inches (6") into the soil. Soils with greater than six percent (6%) organic matter in the top six inches (6") of soil are exempt from adding Compost and tilling.

(4) 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. To provide habitat for beneficial insects and other wildlife, up to five percent (5%) of the

Landscape Area may be left without Mulch. Designated insect habitat shall be included in the Landscape Design Plan.

(5) Stabilizing Mulching products shall be used on slopes that meet current engineering standards.

(6) The Mulching portion of the seed/Mulch slurry in hydro-seeded applications shall meet the Mulching requirement.

(7) Organic Mulch materials made from recycled or post-consumer products shall take precedence over inorganic materials or virgin forest products unless the recycled, post-consumer products are not locally available. Organic Mulches are not required where prohibited by local Fuel Modification Plan Guidelines or other applicable local ordinances.

6. <u>Grading Design Plan</u>.

a. For the efficient use of water, grading of a project Site shall be designed to minimize soil erosion, Runoff, and Water Waste. A grading plan shall be submitted to the Jurisdiction for review. A comprehensive grading plan prepared by a civil engineer for other local agency permits satisfies this requirement.

b. The project Applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the Landscape Area including:

(1) Height of graded slopes;

(2) Drainage patterns;

(3) Pad elevations;

(4) Finish grade; and

(5) Storm water retention improvements, if applicable.

c. *To prevent excessive erosion and Runoff, it is highly recommended that project Applicants:*

(1) *Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable hardscapes;*

(2) *Avoid disruption of natural drainage patterns and undisturbed soil; and*

(3) *Avoid soil compaction in Landscape Areas.*

d. *The grading design plan shall contain the following statement that shall bear the signature of a licensed professional as authorized by law:*

"I have complied with the criteria of the Monterey Peninsula Water Management District Water Efficient Landscape Requirements and applied them accordingly for the efficient use of water in the grading design plan."

I. *Irrigation Design Plans for Major Landscapes.*

1. *This section applies to Landscaped Areas requiring permanent irrigation, not areas that require temporary irrigation solely for the plant establishment period.*

2. *The Irrigation Design Plan shall be drawn by a licensed Landscape Architect, a licensed Landscape Contractor, a Certified Irrigation Designer, or any other person authorized to design a landscape.*

3. *Irrigation Design Plan Minimum Requirements.*

(a) *Location and size of separate Water Meters for landscape;*

(b) *Location, type and size of all components of the Irrigation System, including Controllers, main and lateral lines, valves, Sprinkler Heads, Soil Moisture Sensing Devices, Rain Sensors, quick couplers, pressure regulators, and Backflow Prevention Devices;*

(c) Static water pressure at the point of Connection to the water supply;

(d) Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station;

(e) Recycled Water Irrigation Systems.

(1) All Recycled Water Irrigation Systems shall be designated and operated in accordance with all applicable local and State laws.

(2) Landscapes using Recycled Water are considered Special Landscape Areas. The Evapotranspiration Adjustment Factor for new and existing (not Rehabilitated Landscape) Special Landscape Areas shall not exceed 1.0.

(f) Irrigation Design Plans shall contain the following statement signed by a licensed Landscape Architect, Certified Irrigation Designer, licensed Landscape Contractor, or any other person authorized to design an Irrigation System:

"I have complied with the criteria of the Monterey Peninsula Water Management District Water Efficient Landscape Requirements and applied them accordingly for the efficient use of water in the Irrigation Design Plan."

4. Irrigation System Design. For the efficient use of water, an Irrigation System an Irrigation System shall meet all the following design requirements and the manufacturers' recommendations and shall be submitted as part of the Landscape Package:

(a) All Non-Residential landscapes receiving a Water Permit that include irrigated landscapes of 1,000 square-feet or greater shall utilize a separate Water Meter supplied by the local water purveyor to measure all exterior water uses.

(b) All Residential irrigated landscapes of 5,000 square-feet or greater shall install a separate privately owned Water Meter to measure outdoor water use.

(c) Automatic Irrigation Controllers utilizing either Evapotranspiration or Soil Moisture Sensing Device data utilizing non-volatile memory shall be required for irrigation scheduling in all Irrigation Systems.

(d) If the water pressure is below or exceeds the recommended pressure of the specified irrigation devices, the installation of a pressure regulating device is required to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.

(e) A Rain Sensor (either integral or auxiliary) that suspends irrigation operation during and for 48 hours after Measurable Precipitation shall be required on all Irrigation Systems.

(f) Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be required, as close as possible to the point of connection to the water supply, to minimize water loss in case of an emergency (such as a main line break) or routine repair.

(g) Backflow Prevention Devices shall be required to protect the water supply from contamination by the Irrigation System. A project Applicant shall refer to the applicable local agency code (i.e., public health) for additional Backflow Prevention Device requirements.

(h) Flow Sensors that detect high flow conditions created by system damage or malfunction are required for all Non-Residential landscapes and Residential landscapes of 5,000 square-feet or greater.

(i) Master Shut-Off Valves are required on all projects except landscapes that make use of technologies that allow for the individual control of sprinklers that are individually pressurized in a system equipped with low pressure shut down features.

(j) ***The Irrigation System shall be designed to prevent Runoff, low head drainage, Overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.***

(k) ***Relevant information from the Soils Management Report, such as soil type and Infiltration Rate, shall be utilized when designing Irrigation Systems.***

(l) ***The design of the Irrigation System shall conform to the Hydrozones of the Landscape Design Plan.***

(m) ***The Irrigation System must be designed and installed to meet the Irrigation Efficiency criteria calculated in the Water Efficient Landscape Worksheet.***

(n) ***All irrigation emission devices must meet that requirements set in the American National Standards Institute (ANSI) standard, American Society of Agricultural and Biological Engineers'/International Code Council's (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.***

(o) ***In Mulched planting areas, the use of a Low Volume Irrigation System is required to maximize water infiltration into the root zone.***

(p) ***Sprinkler Heads and other emission devices shall have matched precipitation rates, unless otherwise directed by the manufacturer's recommendations.***

(q) ***Head to head coverage is recommended. However, sprinkler spacing shall be designed to achieve the highest possible Distribution Uniformity using the manufacturer's recommendations.***

(r) Swing Joints or other rise-protection components are required on all risers subject to damage that are adjacent to hardscapes or in high traffic areas of Turf grass.

(s) Check Valves or anti-drain valves are required on all Sprinkler Heads where low point drainage could occur.

(t) Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no Runoff or Overspray.

(u) Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be Mulch, gravel, or other porous material. These restrictions may be modified if:

(1) The Landscape Area is adjacent to permeable surfacing and no Runoff occurs; or

(2) The adjacent non-permeable surfaces are designed and constructed to drain entirely to the landscaping; or

(v) Slopes greater than 25 percent shall not be irrigated with an Irrigation System with an application rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer specifies an alternative design or technology, as part of the Landscape Package, and clearly demonstrates no Runoff or erosion will occur. Prevention of Runoff and erosion shall be confirmed during the Irrigation Audit.

(w) Hydrozones.

(1) Each valve shall irrigate a Hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.

(2) Sprinkler Heads and other emission devices shall be selected based on what is appropriate for the plant type within that Hydrozone.

(3) Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and Turf to facilitate the appropriate irrigation of trees. The mature size and extent of the root zone shall be considered when designing irrigation for the tree.

(4) Individual Hydrozones that mix moderate and Low Water Use Plants, or Moderate and High Water Use Plants, may be allowed if the Plant Water Use Factor of the higher water using plant is used for the Water Budget calculations.

(5) Individual Hydrozones that mix Low and High Water Use Plants are prohibited.

(6) On the Irrigation Design Plan, Hydrozone areas shall be designated by number, letter, or other designation. On the Irrigation Design Plan, designate areas irrigated by each valve.

J. <u>Water Efficient Landscape Worksheet for Major Landscapes</u>.

1. To ensure Major Landscape Projects conserve water to the maximum extent possible, information included within the Water Efficient Landscape Worksheet shall be consistent with the requirements listed in this Rule.

2. <u>Water Budget</u>. Water Budget calculations shall meet the following requirements:

(a) The surface area of all Water Features shall be calculated as high water use and incorporated within a high water use Hydrozone.

(b) Temporarily irrigated areas shall be calculated as low water use and incorporated within a low water use Hydrozone.

(c) Water Budget calculations for the Maximum Applied Water Allowance shall be calculated using the formula found in the Landscape Manual. Special Landscape Areas, as defined in this Rule, and areas irrigated with Recycled Water, are subject to Maximum Applied Water Allowance with an Evapotranspiration Adjustment Factor not to exceed 1.0.

(d) The calculation of a project's Estimated Total Water Use shall be performed using the formula found in the Landscape Manual.

(e) For calculation of the Maximum Applied Water Allowance and Estimated Total Water Use, the project Applicant shall use the annual Evapotranspiration values contained in Appendix A of the Landscape Manual.

(f) Landscape projects subject to this Rule shall not apply water to the landscape in excess of the maximum amount of water allowed. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance.

K. Alternative Water Sources in the Landscape.

1. Rain gardens, Cisterns and other landscape features and practices that increase rainwater capture and create opportunities for infiltration and/or onsite storage are recommended. Rainwater catchment systems shall meet the requirements of the Monterey County Environmental Health Bureau.

2. To promote the efficient use of water, the use of Graywater systems for irrigation is recommended. Graywater systems shall meet the requirements of the California Plumbing Code, including any modifications adopted by Monterey County, and are subject to approval by the Monterey County Environmental Health Bureau.

3. Landscape projects in the Unincorporated County Jurisdiction using treated or untreated Graywater or rainwater captured onsite to irrigate the entire Landscape Area shall be subject to the approval of the Monterey County Environmental Health Bureau.

4. ***All Recycled Water Irrigation Systems shall be designed and operated in accordance with all State and County laws and regulations related to Recycled Water use.***

5. ***Landscape projects subject to this Rule shall incorporate the use of Recycled Water for irrigation when, in the determination of the District, Recycled Water is available and connection to Recycled Water is feasible.***

L. ***Irrigation Schedules.***

1. ***For the efficient use of water, all irrigation schedules shall be developed, managed and evaluated to utilize the minimum amount of water required to maintain plant health. The irrigation schedule shall be developed by a Landscape Architect, Landscape Contractor, or any other person authorized to install irrigation equipment.***

2. ***Irrigation scheduling shall be regulated by Automatic Irrigation Controllers using current Reference Evapotranspiration data or Soil Moisture Sensing Device data.***

3. ***Overhead irrigation shall be scheduled between 8:00 p.m. and 9:00 a.m.***

4. ***Operation of the Irrigation System outside the normal watering window is allowed for auditing and system maintenance.***

5. ***For implementation of the irrigation schedule, particular attention must be paid to irrigation run times, emission device, Flow Rate, and current Reference Evapotranspiration, so that Applied Water meets the Estimated Applied Water Use. Total annual Applied Water shall be less than or equal to Maximum Applied Water Allowance.***

6. ***Parameters used to set the automatic Controller shall be developed and submitted for each of the following:***

   (a) The plant establishment period;

   (b) The established landscape; and

   (c) Temporarily irrigated areas.

7. ***The irrigation schedule shall be consistent with the requirements of this Rule and shall consider for each station all of the following that apply:***

   (a) Irrigation interval (days between irrigation);

   (b) Irrigation run times (hours or minutes per irrigation event to avoid Runoff);

   (c) Number of cycle starts required for each irrigation event to avoid Runoff;

   (d) Amount of Applied Water scheduled to be applied on a monthly basis;

   (e) Application rate setting;

   (f) Root depth setting;

   (g) Plant type setting;

   (h) Soil type;

   (i) Slope factor setting;

   (j) Shade factor setting; and

   (k) Irrigation uniformity or efficiency setting.

8. ***The irrigation schedule shall be submitted with the landscape Certificate of Completion pursuant to this Rule.***

M. <u>Landscape Planting and Maintenance Schedule</u>.

1. ***In order to maintain plant health and functioning irrigation equipment, a landscape planting and irrigation maintenance schedule shall be developed incorporating the requirements of this section, the applicable sections of the Landscape Manual, and include the following:***

   (a) A regular maintenance schedule shall be developed by a Landscape Architect, Landscape Contractor, or any other person

authorized to design and maintain landscape planting and irrigation.

(b) A regular maintenance schedule shall include, but is not limited to, routine inspection, adjustment, and repair of the Irrigation System and its components.

(c) A note shall be included stating that any replacement plants shall not exceed the water use for the Hydrozone.

(d) A regular maintenance schedule shall make provisions for irrigation inspections, systems tune-up, and system tests with Distribution Uniformity preventing Overspray or Runoff that causes overland flow.

(e) The regular maintenance schedule shall be submitted with the landscape Certificate of Completion consistent with this Rule.

N. Certificate of Completion Requirements for Major Landscapes.

1. Upon completion of installation of a Major Landscape Project, but prior to occupancy or final of the associated grading or building permits, the project Applicant shall provide the property owner and the District with a Certificate of Completion. The Certificate of Completion shall comply with the requirements of this Rule.

2. The Certificate of Completion shall include all of the following:

(a) Project information;

(b) Certification for installation of the landscape planting and irrigation;

(c) The proposed irrigation schedule;

(d) An Irrigation Audit conducted by a Certified Landscape Irrigation Auditor. The audit shall not be conducted by the person who designed and/or installed the landscape.

(e) The proposed Landscape and Irrigation Maintenance Schedule; and

(f) Verification of implementing recommendations of the Soils Management Report.

3. The Certificate of Completion shall be signed by either the person or entity who signed the Landscape Design Plan, the person or entity who signed the Irrigation Design Plan, or the licensed Landscape Contractor who installed the landscape.

4. If minor changes were made during installation, Record Drawing or As-Built Plans shall be included with the certification. Record Drawing or As-Built Plans must be in conformance with this Rule.

5. If significant changes such as an increase in the size of the Landscape Area or any change in the plant species to a higher water use species were made during installation, the project shall require an amendment to the approved Major Landscape Package as required by this Rule.

6. A copy of the approved form for the Certificate of Completion can be found in the Landscape Manual.

7. A Certificate of Completion shall not be accepted by the District unless it is complete and meets all the requirements of this Rule.

8. The District shall approve or deny the Certificate of Completion. If the Certificate of Completion is denied, the District shall provide the project Applicant with the opportunity to make correction(s). Decisions to deny a Certificate of Completion are appealable decisions.

O. Inspection Requirements. Prior to the final of grading or building permits associated with Major and Minor Landscape Projects subject to the provisions of this Rule, inspection by the District or its designated agent to verify compliance with the approved Landscape Package shall be required.

P. Amendments.

1. Proposed amendments to an approved Minor Landscape Package shall be submitted to the District for review and approval prior to submittal of

the Certificate of Completion. The amendment shall be in writing, in sufficient detail to adequately address the nature of the amendment and demonstrate consistency with the requirements of this Rule. Amendments shall be processed in the same manner as the Landscape Package application.

2. *Proposed amendments to an approved Major Landscape Package shall be submitted to the District for review and approval prior to submittal of the Certificate of Completion. The amendment shall be in writing, in sufficient detail to adequately address the nature of the amendment and demonstrate consistency with the requirements of this Rule. Amendments shall be processed in the same manner as the Landscape Package application.*

Q. *Appeals. Any denial by the General Manager or his/her designee of a Minor or Major Landscape Package, Minor Landscape Certificate of Completion, or Certificate of Completion pursuant to this Rule may be appealed by the Applicant to the Board of Directors pursuant to Rule 70.*

R. *Existing Landscapes. The purpose of this section is to encourage reduction of excessive water use in landscapes through public education.*

1. *Existing landscapes installed prior to December 1, 2015 are strongly encouraged to reduce water consumption through participation in water conservation programs, including but not limited to those listed in this section.*

2. *Existing landscapes located within the Monterey Peninsula Water Management District are strongly encouraged to participate in applicable landscape Rebate programs, landscape water audit/budget analysis and/or any other available water conservation programs to the greatest extent feasible.*

3. *All model homes that are landscaped shall use signs and written information to demonstrate the principles of water efficient landscapes described in this Rule.*

   (a) *Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as Hydrozones,*

irrigation equipment, use of native plants, graywater systems and rainwater catchment systems to demonstrate low water use approaches and techniques in landscaping.

S. The following definitions are used in this Rule and in the Landscape Manual:

APPLIED WATER – "Applied Water" shall mean the portion of water supplied by the Irrigation System to the landscape.

AS-BUILT DRAWINGS – "As-Built Drawings" shall mean landscape drawings prepared by the contractor that show, in red ink, on-Site changes to the original landscape construction documents.

AUTOMATIC IRRIGATION CONTROLLER – "Automatic Irrigation Controller" shall mean a timing device used to remotely control valves that operate an Irrigation System. Automatic Irrigation Controllers are able to self-adjust and schedule irrigation events using either Evapotranspiration (weather-based) or soil moisture data.

BACKFLOW PREVENTION DEVICE – "Backflow Prevention Device" shall mean a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water.

CALIFORNIA INVASIVE PLANT INVENTORY – "California Invasive Plant Inventory" shall mean the California Invasive Plant Inventory maintained by the California Invasive Plant Council.

CERTIFICATE OF COMPLETION – "Certificate of Completion" shall mean a document certifying completion of a landscape in compliance with the Monterey Peninsula Water Management District Water Efficient Landscape Requirements.

CERTIFIED IRRIGATION DESIGNER – "Certified Irrigation Designer" shall mean a person certified to design Irrigation Systems by an accredited academic institution, a professional trade organization or other program such as the United States Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Irrigation Designer program.

CERTIFIED LANDSCAPE IRRIGATION AUDITOR – "Certified Landscape Irrigation Auditor" shall mean a Person certified to perform landscape Irrigation Audits by an accredited academic institution, a professional trade organization or other program such as the United States Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.

CHECK VALVE – "Check Valve" shall mean a valve located under a sprinkler head, or other location in the Irrigation System, to hold water in the system to prevent drainage form sprinkler heads when the sprinkler is off.

COMMON INTEREST DEVELOPMENTS – "Common Interest Developments" shall mean community apartment projects, condominium projects, planned developments, and stock cooperatives per Civil Code Section 1351.

COMPOST – "Compost" shall mean the safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.

CONTROLLER – "Controller" shall mean an automatic timing device used to remotely control valves or heads to operate an Irrigation System. A weather-based Controller is a Controller that utilizes Evapotranspiration or weather data to make adjustments to irrigation schedules. A self-adjusting irrigation Controller is a Controller that uses onsite sensor data (e.g., soil moisture) to adjust irrigation schedules.

CONVERSION FACTOR (0.62) – "Conversion Factor (0.62)" shall mean the number that converts acre-inches per acre per year to gallons per square foot per year.

DISTRIBUTION UNIFORMITY – "Distribution Uniformity" shall mean the measure of the uniformity of irrigation water over a defined area.

DRIP IRRIGATION – "Drip Irrigation" shall mean any non-spray Low Volume Irrigation System utilizing emission devices with a Flow Rate measured in gallons per hour. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants. The term "Drip Irrigation" shall have the same meaning as "Micro Irrigation" and "Trickle Irrigation."

ECOLOGICAL RESTORATION PROJECT – "Ecological Restoration Project" shall mean a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

EFFECTIVE PRECIPITATION – "Effective Precipitation" ("Eppt") shall mean the portion of total precipitation which becomes available for plant growth. Effective Precipitation is also known as "useable rainfall."

EMITTER – "Emitter" shall mean a Drip Irrigation emission device that delivers water slowly from the system to the soil.

ESTABLISHED LANDSCAPE – "Established Landscape" shall mean the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

ESTABLISHMENT PERIOD OF THE PLANTS – "Establishment Period of the Plants" shall mean the first year after installing the plant in the landscape or the first two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth. Native habitat mitigation areas and trees may need three to five years for establishment.

ESTIMATED TOTAL WATER USE ("ETWU") – "Estimated Total Water Use" shall mean the total water used for the landscape based on the plants used in the landscape design.

EVAPOTRANSPIRATION ADJUSTMENT FACTOR or ET ADJUSTMENT FACTOR – "Evapotranspiration Adjustment Factor" or "ET Adjustment Factor" ("ETAF") shall mean, except for Special Landscape Areas, a factor of 0.55 for Residential projects and 0.45 for Non-Residential projects that, when applied to Reference Evapotranspiration, adjusts for Plant Water Use Factors and Irrigation Efficiency.

EVAPOTRANSPIRATION RATE – "Evapotranspiration Rate" shall mean the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

FRIABLE – "Friable" shall mean a soil condition that is easily crumbled or loosely compacted down to a minimum depth per planting material requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.

FLOW RATE – "Flow Rate" shall mean the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

FLOW SENSOR – "Flow Sensor" shall mean an inline device installed at the supply point of the Irrigation System that produces a repeatable signal proportional to Flow Rate. Flow Sensors must be connected to an Automatic Irrigation Controller, or flow monitor capable of receiving flow signals and operating Master Shut-Off Valves. The combination Flow Sensor/Controller may also function as a landscape Water Meter or sub-meter.

GRAYWATER -- "Graywater" shall mean untreated waste water which 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; waste water from bathtubs, showers, Bathroom Washbasins, clothes washing machines and laundry tubs. It does not include waste water from Kitchen Sinks and Dishwashers. Health and Safety Code Section 17922.12. "Graywater" shall have the same meaning as "Greywater."

HIGH WATER USE PLANT – "High Water Use Plant" shall mean any plant categorized as high water need by the Water Use Classification of Landscape Species guide ("WUCOLS").

HYDROZONE – "Hydrozone" shall mean a portion of the Landscape Area having plants with similar water needs and rooting depths served by a valve or set of valves with the same schedule. A Hydrozone may be irrigated or non-irrigated.

INFILTRATION RATE – "Infiltration rate" shall mean the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).

INVASIVE PLANT SPECIES – "Invasive Plant Species" shall mean a species of plants not historically found in California that spreads outside cultivated areas and can damage environmental or economic resources and is listed as an Invasive Plant Species in either the California Invasive Plant Inventory; USDA invasive, noxious weeds database, or the Landscape Manual.

IRRIGATION AUDIT – "Irrigation Audit" shall mean an in-depth evaluation of the performance of an Irrigation System conducted by a Certified Landscape Irrigation Auditor. An Irrigation Audit shall include, 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.

IRRIGATION DESIGN PLAN – "Irrigation Design Plan" (IE) shall mean an irrigation plan and drawings designed and signed by a licensed Landscape Architect, Certified Irrigation Designer, licensed Landscape Contractor, or any other person authorized to design an Irrigation System (see Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code).

IRRIGATION EFFICIENCY – "Irrigation Efficiency" shall mean 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. The Irrigation Efficiency is 0.75 for overhead spray devices and 0.81 for drip systems.

IRRIGATION METER – "Irrigation Meter" shall mean a separate meter that measures the amount of water used for irrigation.

IRRIGATION SURVEY – "Irrigation Survey" shall mean an evaluation of an Irrigation System that is less detailed than an Irrigation Audit.

IRRIGATION WATER USE ANALYSIS – "Irrigation Water Use Analysis" shall mean an analysis of water use data based on meter readings and billing data.

LANDSCAPE ARCHITECT – "Landscape Architect" shall mean a person who holds a license to practice landscape architecture in the State of California (California Business and Professions Code Section 5615).

LANDSCAPE AREA -- "Landscape Area" shall mean all the planting areas, Turf areas, and Water Features in a Landscape Design Plan subject to the Maximum Applied Water Allowance and the Estimated Applied Water Use calculations. 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).

LANDSCAPE CONTRACTOR – "Landscape Contractor" shall mean a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

LANDSCAPE DESIGN PLAN – "Landscape Design Plan" shall mean a plan (and drawings) that (1) delineates and labels each Hydrozone; (2) identifies each Hydrozone as low, moderate, high water, or mixed water use; (3) identifies any Recreational Areas; (4) identifies areas permanently and solely dedicated to edible plants; (5) identifies areas irrigated with Recycled Water; (6) identifies type of Mulch and application depth; (7) identifies soil amendments, type, and quantity; (8) identifies type and surface area of any Water Features; (9) identifies hardscapes (Pervious and non-pervious); (10) identifies applicable storm water Best Management Practices; (11) identifies any applicable rain harvesting or catchment technologies; and (12) identifies any applicable Graywater discharge piping, system components and area(s) of distribution. A Landscape Design Plan must be signed by a licensed Landscape Architect, Certified Irrigation Designer, licensed Landscape Contractor, or any other person authorized to design an Irrigation System (see Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5431.4, 5441.5, 5641.6, 6701, 7027.5 of the Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the Food and Agricultural Code). "Landscape Design Plan" shall also be known as a "Planting Plan."

LANDSCAPE MANUAL – "Landscape Manual" shall mean the "Monterey Peninsula Water Management District Landscape Manual – Standards and Specified Performance Requirements for Water Efficient Landscape Water Use and Irrigation."

LANDSCAPE PACKAGE– "Landscape Package" shall mean the landscape Water Permit application and materials required to be submitted for review and approval by the MPWMD.

LANDSCAPE WATER METER – "Landscape Water Meter" shall mean an inline device installed at the irrigation supply point that measures the flow of water into the Irrigation System and is connected to a totalizer to record water use.

LATERAL LINE – "Lateral Line" shall mean the water delivery pipeline that supplies water to the Emitters or sprinklers from the valve.

LOCAL WATER PURVEYOR – "Local Water Purveyor" shall mean any entity, including a public agency, city, county or private water company that provides retail water service.

LOW VOLUME IRRIGATION SYSTEM – "Low Volume Irrigation System" shall mean the application of irrigation water at low pressure through a system of tubing or Lateral Lines and low-volume Emitters such as drip, drip lines, and bubblers. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

LOW WATER USE PLANT – "Low Water Use Plant" shall mean any plant categorized as low water need by the Water Use Classification of Landscape Species ("WUCOLS") guide.

MAJOR LANDSCAPE PROJECT – "Major Landscape Project" shall mean Landscape projects with an aggregate Landscape Area greater than two thousand five hundred (2,500) square feet.

MASTER SHUT-OFF VALVE – "Master Shut-Off Valve" shall mean an automatic valve installed at the irrigation supply point which controls water flow into the Irrigation System. When this valve is closed, water will not be

supplied to the Irrigation System. A Master Shut-Off Valve will greatly reduce any water loss due to a leaky station valve.

MAXIMUM APPLIED WATER ALLOWANCE – "Maximum Applied Water Allowance" shall mean the upper limit of annual Applied Water for the established Landscape Area. It is based upon the area's Reference Evapotranspiration, the ET Adjustment Factor, and the size of the Landscape Area.

STREET MEDIAN – "Street Median" shall mean an area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.

MICRO IRRIGATION – "Micro Irrigation" shall mean any non-spray Low Volume Irrigation System utilizing emission devices with a Flow Rate measured in gallons per hour. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants. The term "Drip Irrigation" shall have the same meaning as "Micro Irrigation" and "Trickle Irrigation."

MICROCLIMATE – "Microclimate" shall mean the climate of a small, specific area that may contrast with the climate of the overall Landscape Area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.

MINOR LANDSCAPE PROJECT – "Minor Landscape Project" shall mean landscape projects with an aggregate Landscape Area less than or equal to two thousand five hundred (2,500) square feet.

MODERATE WATER USE PLANT – "Moderate Water Use Plant" shall mean any plant categorized as moderate water need by the Water Use Classification of Landscape Species ("WUCOLS") guide.

MULCH – "Mulch" shall mean any organic material such as leaves, bark, straw, Compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

NON-RESIDENTIAL LANDSCAPE – "Non-Residential Landscape" shall mean landscapes in commercial, institutional, industrial and public settings that may have areas designated for recreation or public assembly. It also includes portions of common areas of common interest developments with designated Recreational Areas.

OPERATING PRESSURE – "Operating Pressure" shall mean the pressure at which the parts of an Irrigation System are designed by the manufacturer to operate.

OVERHEAD SPRINKLER IRRIGATION SYSTEM – "Overhead Sprinkler Irrigation System" or "Overhead Irrigation System" shall mean systems that deliver water through the air (for example pop-ups, impulse sprinklers, spray heads, rotors, and micro-sprays).

OVERSPRAY – "Overspray" shall mean the irrigation water that is delivered beyond the Landscape Area, wetting pavements, walks, structures, or other non-landscaped areas.

PARKWAY – "Parkway" shall mean the area between a sidewalk and the curb or traffic lane. It may be planted or unplanted, and with or without pedestrian egress.

PERVIOUS – "Pervious" shall mean any surface or material that allows the passage of water through the material and into the underlying soil.

PLANT WATER USE FACTOR – "Plant Water Use Factor" shall mean a value, when multiplied by "Reference Evapotranspiration," that estimates the amount of water needed by plants. The Plant Water Use Factor range for very Low Water Use Plants is less than 0.1, the Plant Water Use Factor range for Low Water Use Plants is 0.1 to 0.3, the Plant Water Use Factor range for Moderate Water Use Plants is 0.4 to 0.6, and the Plant Water Use Factor range for High Water Use Plants is 0.7 to 1.0. Plant Water Use Factors are derived from the publication "Water Use Classification of Landscape Species." Plant Water Use Factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources.

PLANTING PLAN – "Planting Plan" shall have the same meaning as "Landscape Design Plan."

RAIN SENSING SHUTOFF DEVICE – "Rain Sensing Shutoff Device" shall mean a component of an Irrigation System which automatically suspends irrigation when it rains. The term "Ran Sensing Shutoff Device" shall have the same meaning as the term "Rain Sensor."

RAIN SENSOR – "Rain Sensor" shall mean a component of an Irrigation System which automatically suspends irrigation when it rains. The term "Rain Sensor" shall have the same meaning as the term "Ran Sensor."

RECORD DRAWINGS – "Record Drawings" shall mean landscape documents prepared by the Landscape Architect that reflect on-Site changes the contractor noted in the As-Built Drawings. They are often compiled as a set of on-Site changes made for the owner per the owner-architect contract

RECREATIONAL AREA – "Recreational Area" shall mean areas, excluding private Single Family Residential areas, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf course tees, roughs, surrounds and greens.

RECYCLED WATER – "Recycled Water" shall mean treated or recycled waste water of a quality suitable for Sub-potable uses such as landscape irrigation and Water Features. This water is not intended for human consumption.

REFERENCE EVAPOTRANSPIRATION – "Reference Evapotranspiration" shall mean a standard measurement of environmental parameters which affect the water use of plants. Reference Evapotranspiration is expressed in inches per day, month, or year, and is an estimate of the Evapotranspiration of a large field of four to seven inches tall, cool-season grass that is well watered. Reference Evapotranspiration is used as the basis of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.

REHABILITATED LANDSCAPE – "Rehabilitated Landscape" shall mean any re-landscaping of existing landscapes where the modified Landscape Area is equal to or greater than two thousand five hundred (2,500) square feet.

RESIDENTIAL LANDSCAPE – "Residential Landscape" shall mean landscape surrounding single or multifamily homes.

RUNOFF – "Runoff" shall mean water which is not absorbed by the soil or landscape to which it is applied and flows from the Landscape Area. For example, Runoff may result from water that is applied at too great a rate (application rate exceeds Infiltration Rate) or when there is a slope.

SOILS MANAGEMENT REPORT – "Soils Management Report" shall mean an analysis of the existing soil conditions relative to horticulture (versus agriculture or structural integrity) resulting in recommendations of appropriate soil amendments.

SOIL MOISTURE SENSING DEVICE – "Soil Moisture Sensing Device" shall mean a device that measures the amount of water in the soil. The device may also suspend or initiate an irrigation event.

SOIL TEXTURE – "Soil Texture" shall mean the classification of soil based on its percentage of sand, silt, and clay.

SPECIAL LANDSCAPE AREA (SLA) – "Special Landscape Area" or "SLA" shall mean an area of the landscape irrigated with Recycled Water, Water Features using Recycled Water, and areas dedicated to active play such as parks, sports fields, golf courses, and where Turf provides a playing surface.

SPRINKLER HEAD – "Sprinkler Head" shall mean a device which delivers water through a nozzle.

STATIC WATER PRESSURE – "Static Water Pressure" shall mean the pipeline water supply pressure when water is not flowing.

STORM WATER CONTROL FACILITY – "Storm Water Control Facility" shall mean a structural feature intended to control or reduce storm water Runoff and associated pollutants, to induce or control the infiltration or Groundwater recharge of storm water, or to eliminate illicit or illegal non-storm water discharges into storm water conveyances.

STORM WATER CONTROL MEASURE – "Storm Water Control Measure" shall mean any structural or non-structural strategy, practice, technology, process, program or other method intended to control or reduce storm water

Runoff and associated pollutants, or to induce or control the infiltration or Groundwater recharge of storm water, or to eliminate illicit or illegal non-storm water discharges into storm water conveyances. Storm Water Control Measures include Storm Water Control Facilities.

SWING JOINT – "Swing Joint" shall mean an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.

TRICKLE IRRIGATION - "Trickle Irrigation" shall mean shall mean any non-spray Low Volume Irrigation System utilizing emission devices with a Flow Rate measured in gallons per hour. Low Volume Irrigation Systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants. The term "Trickle Irrigation" shall have the same meaning as "Drip Irrigation" and "Micro Irrigation."

TURF – "Turf" shall mean a ground cover surface of mowed grass and does not include artificial Turf surfaces. For example, Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses and Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass are warm-season grasses.

VALVE – "Valve" shall mean a device used to control the flow of water in the Irrigation System.

WATER BUDGET – "Water Budget" shall mean a maximum annual water allowance in gallons per year that takes into consideration the types of plants, Evapotranspiration Rates and Irrigation System.

WATER CONSERVING PLANT SPECIES– "Water conserving plant species" shall mean a plant species identified as having a low Plant Water Use Factor.

WATER EFFICIENT LANDSCAPE WORKSHEET – "Water Efficient Landscape Worksheet" shall mean the form used in the Landscape Package to calculate the Water Budget for a landscape. The form is found in Appendix B of the Landscape Package.

WATER FEATURE – "Water Feature" shall mean a design element where open water performs an aesthetic or recreational function. Water Features

include ponds, lakes, waterfalls, fountains, artificial streams, spas, and Swimming Pools where water is artificially supplied. The surface area of Water Features is included in the high water use Hydrozone of the Landscape Area. Constructed facilities used for onsite waste water treatment or Storm Water Control Measures that are not irrigated and used solely for water treatment or storm water retention are not considered Water Features.

WATERING STATION – "Watering Station" shall mean an area served by one valve or by a set of valves that operate simultaneously.

WATERING WINDOW – "Watering Window" shall mean the time of day irrigation is allowed.

WEATHER BASED IRRIGATION CONTROLLER -- "Weather Based Irrigation Controller" shall mean an Irrigation System component that uses local weather conditions and landscape conditions to adjust irrigation schedules automatically to actual conditions on the Site or historical weather data.

WUCOLS – "WUCOLS" shall mean the Water Use Classification of Landscape Species guide published by the University of California Cooperative Extension and the California Department of Water Resources 2014, as may be periodically updated.

Section Eight: **Amendment to Rule 142-C, Water Efficiency Standards**

Rule 142-C shall be amended as shown below, with added language as shown in ***bold italic*** type face, and deleted language shown in ~~strikeout~~ type face.

C. Residential Water Efficiency Standards for New Structures.

All Residential New Structures receiving a Water Permit shall meet or exceed the following standards:

1. High Efficiency or Ultra-High Efficiency Toilets shall be installed;

2. Urinals, when installed in a Residential use, shall be designed to flush with one (1) gallon of water. After January 1, 2016, newly installed Urinals shall flush with no more than 0.125 gallon per flush;

3. Showerheads, Rain Bars, or Body Spray Nozzles must be designed and manufactured to emit a maximum of 2.0 gallons per minute of water;

4. All shower fixtures should be equipped with scald protection valves rated for 2.0 gallons per minute Showerheads;

5. High Efficiency Clothes Washer(s) and High Efficiency Dishwasher(s) shall be required when installed in a Residential use;

6. Lavatory Sink faucets shall emit a maximum of 1.2 gallons of water per minute at 60 psi;

7. Kitchen Sink, Utility Sink, and Bar Sink faucets shall emit a maximum of 1.8 gallons of water per minute at 60 psi. Faucets may have the capability to temporarily increase flow to 2.2 gallons per minute for filling pots and pans, but must default back to a maximum ~~f~~***F***low ~~r~~***R***ate of 1.8 gallons per minute measured at 60 psi.;

8. Instant-Access Hot Water Systems shall be installed;

9. All hot water pipes shall be insulated;

10. Sodium chloride (salt) water softeners shall be discouraged in New Construction. Alternate technologies such as potassium chloride shall be recommended. When a sodium chloride water softener is to be installed within the MPWMD, the unit shall use demand-initiated regeneration which senses when the resin must be recharged, either electronically or with a meter that measures and calculates usage. This requirement shall be specified on the Construction Drawings.

11. Landscaping. ***All New Construction (including new buildings with landscape or other new landscape, such as a park, playground, or greenbelt without an associated building) shall install and maintain landscapes that comply with Rule 142.1.***

12. Rainwater collection/Irrigation Systems are encouraged to supplement irrigation for new Landscaping. New Structures shall be encouraged to include one or more rainwater Cisterns and a system to provide at least

75 percent of exterior irrigation during normal rainfall years. Systems must be compliant with local catchment system standards.

13. ***Graywater collection/Irrigation Systems are encouraged to supplement irrigation for new Landscaping. Systems must be compliant with local catchment system standards, including Monterey County Environmental Health Bureau.***

14. ***All Sites utilizing a Graywater reuse system shall install and maintain a Backflow Prevention Device as required by any Water Distribution System Operator that supplies water to the Site.***

~~a. All New Construction shall install and maintain Landscaping that complies with the California Model Water Efficient Landscape Ordinance as revised (California Code of Regulations, Title 23, Water, Division 2, Department of Water Resources, Chapter 2.7, Model Water Efficient Landscape Ordinance) or with local or District Landscape requirements if more restrictive.~~

~~b. Plants shall be grouped in hydrozones.~~

~~12. Irrigation System Efficiency.~~

~~a. Weather Based Irrigation System Controllers (e.g. Smart Controllers) shall be installed, used and maintained on Sites where there is an Irrigation System.~~

~~b. Weather Based Irrigation System Controllers shall include functioning Soil Moisture Sensors and a Rain Sensor as components of the system.~~

~~c. Drip Irrigation shall be utilized for watering all non-turf irrigated plantings.~~

~~d. Rotating Sprinkler Nozzles shall be utilized for turf irrigation.~~

~~e. Overhead spray irrigation shall not be used to water non-turf Landscaping, including trees and shrubs.~~

~~f. Irrigation Systems shall operate with at least 75 percent efficiency for overhead spray devices and at least 81 percent efficiency for drip systems.~~

~~g. Rainwater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. New Structures shall be encouraged to include one or more rainwater Cisterns and a system to provide at least 75 percent of exterior irrigation during normal rainfall years. Systems must be compliant with local catchment system standards.~~

~~h. Graywater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. Systems must be compliant with local catchment system standards, including Monterey County Department of Environmental Health.~~

~~i. All Sites utilizing a Graywater reuse system shall install and maintain a backflow prevention device as required by any Water Distribution System Operator that supplies water to the Site.~~

D. Non-Residential Water Efficiency Standards for New Structures.

All Non-Residential New Structures receiving a Water Permit shall meet or exceed the following standards:

1. High Efficiency or Ultra High Efficiency Toilets shall be installed;

2. Urinals shall be Pint Urinals or Zero Water Consumption Urinals and shall be clearly specified on the final Construction Drawings. Zero Water Consumption Urinals shall be encouraged in settings where there is a regular maintenance staff;

3. Showerheads, Rain Bars, or Body Spray Nozzles must be designed and manufactured to emit a maximum of 2.0 gallons per minute of water;

4. All shower fixtures should be equipped with scald protection valves rated for 2.0 gallons per minute Showerheads;

5. Public Washbasins shall emit a maximum of 0.5 gallon of water per minute at 60 psi. Private Washbasins (e.g. hotel or motel guest rooms and hospital patient rooms) shall emit a maximum of 1.2 gallons of water per minute at 60 psi. All other sinks shall emit a maximum of 2.2 gallons of water per minute at 60 psi unless higher flow is required by Health and Safety Code;

6. Public Washbasins equipped with automatic shut off devices or sensor faucets shall operate with a maximum flow of 0.25 gallons per cycle;

7. High Efficiency Clothes Washers shall be installed when a Clothes Washer is installed in a New Structure permitted under this Regulation;

8. High Efficiency Dishwashers or High Efficiency Commercial Dishwashers shall be installed and maintained on the Site when a Dishwasher is installed in a New Structure permitted by a Water Permit;

9. Instant-Access Hot Water System(s) shall be installed for hot water access points to ensure that hot water is available within ten (10) seconds;

10. All hot water pipes shall be insulated;

11. Sodium chloride (salt) water softeners shall be discouraged in New Construction. Alternate technologies, such as potassium chloride shall be recommended. When a sodium chloride water softener is to be installed within the MPWMD, the unit shall use demand-initiated regeneration which senses when the resin must be recharged, either electronically or with a meter that measures and calculates usage. This requirement shall be specified on the Construction Drawings;

12. Water Efficient Pre-Rinse Spray Valves shall be utilized when a pre-rinse spray valve is installed;

13. There shall be no single-pass water use systems in ice machines, hydraulic equipment, refrigeration condensers, X-ray processing equipment, air compressors, vacuum pumps, etc. Air-cooled or better technology shall be installed when available;

14. Water cooled refrigeration equipment shall be prohibited when there is alternative cooling technology available at the time the Water Permit is issued;

15. Cooling Towers shall be equipped with conductivity controllers that are used to increase the number of cycles that can be achieved;

16. Boilerless steamers or connectionless steamers shall be installed in place of boiler-based steamers when a steamer is installed in New Construction;

17. Landscaping. ***All New Construction (including new buildings with landscape or other new landscape, such as a park, playground, or greenbelt without an associated building) shall install and maintain landscapes that comply with Rule 142.1.***

18. ***Rainwater collection/Irrigation Systems are encouraged to supplement irrigation for new Landscaping. New Structures shall be encouraged to include one or more rainwater Cisterns and a system to provide at least 75 percent of exterior irrigation during normal rainfall years. Systems must be compliant with local catchment system standards.***

19. ***Graywater collection/Irrigation Systems are encouraged to supplement irrigation for new Landscaping. Systems must be compliant with local catchment system standards, including Monterey County Environmental Health Bureau.***

20. ***All Sites utilizing a Graywater reuse system shall install and maintain a Backflow Prevention Device as required by any Water Distribution System Operator that supplies water to the Site.***

~~a. All New Construction shall install and maintain Landscaping that complies with the California Model Water Efficient~~

~~Landscape Ordinance as revised (California Code of Regulations, Title 23, Water, Division 2, Department of Water Resources, Chapter 2.7, Model Water Efficient Landscape Ordinance) or with local or District Landscape requirements if more restrictive.~~

~~b. Plants shall be grouped in hydrozones.~~

~~18. Irrigation System Efficiency.~~

~~a. Weather Based Irrigation System Controllers shall be installed, used and maintained on Sites where there is an Irrigation System.~~

~~b. Weather Based Irrigation System Controllers shall include functioning Soil Moisture Sensors and a Rain Sensor as components of the system.~~

~~c. Drip Irrigation shall be utilized for watering all non-turf irrigated plantings.~~

~~d. Rotating Sprinkler Nozzles shall be utilized for turf irrigation.~~

~~e. Overhead spray irrigation shall not be used to water non-turf Landscaping, including trees and shrubs.~~

~~f. Irrigation Systems shall operate with at least 75 percent efficiency for overhead spray devices and at least 81 percent for drip systems.~~

~~g. Rainwater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. New Structures shall be encouraged to include one or more rainwater Cisterns and a system to provide at least 75 percent of exterior irrigation during normal rainfall years. Systems must be compliant with local catchment system standards.~~

~~h. Graywater collection/irrigation systems are encouraged to supplement irrigation for new Landscaping. Systems must be compliant with local catchment system standards, including Monterey County Department of Environmental Health.~~

~~i. All Sites utilizing a Graywater reuse system shall install and maintain a backflow prevention device as required by any Water Distribution System Operator that supplies water to the Site.~~

~~19~~*21*. The implementation of water conservation Best Management Practices shall be integrated into construction and operation of the project to the extent possible.

~~20~~*22*. The use of Alternative Water Sources for indoor toilet flushing and other uses allowed by the Jurisdiction shall be encouraged.

E. Residential and Non-Residential Change of Ownership, Change of Use, and Expansion of Use Water Efficiency Standards

Sites that have a Change of Ownership, or receive a Water Permit for a Change of Use or Expansion of Use shall meet or exceed the following standards:

1. High Efficiency or Ultra High Efficiency Toilets shall be installed;

2. Urinals shall be at a minimum High Efficiency Urinals (when installed prior to January 1, 2016). Newly installed Urinals shall be Pint Urinals or Zero Water Consumption Urinals. Zero Water Consumption Urinals shall be encouraged in settings where there is a regular maintenance staff;

3. Showerhead ~~f~~*F*low ~~r~~*R*ates shall meet or exceed water efficiency standards for New Structures;

4. Bathroom faucet ~~f~~*F*low *R*~~r~~ates shall meet or exceed water efficiency standards for New Structures;

5. Kitchen faucet ~~f~~*F*low ~~r~~*R*ates shall meet or exceed water efficiency standards for New Structures;

6. Remodels or relocations of water fixtures or appliances that involve hot water shall be encouraged to install an Instant-Access Hot Water System and insulate all new hot water pipes;

7. Pre-rinse spray valves shall meet or exceed the District's definition for Water Efficient Pre-Rinse Spray Valves;

8. Changes of Use and Expansions of Use that require a Water Permit shall not install any single-pass water use systems in ice machines, hydraulic equipment, refrigeration condensers, X-ray processing equipment, air compressors, vacuum pumps, etc. Air-cooled or better technology shall be installed when available;

9. Changes of Use and Expansions of Use that require a Water Permit shall not install any water cooled refrigeration equipment when there is alternative water efficient cooling technology available at the time the Water Permit is issued;

10. Automatic Irrigation Systems, with the exception of Weather-Based Irrigation Systems, shall be retrofit to include a Rain Sensor;

11. The implementation of Non-Residential Best Management Practices shall be integrated into construction and operation of Non-Residential uses to the extent possible~~;~~.

12. Projects that include Rehabilitated Landscapes (modified Landscape Area is equal to or greater than two thousand five hundred (2,500) square feet) shall comply with Rule 20-B and Rule 142.1.

Section Nine: General Replacement of Terms

New definitions adopted by this ordinance shall be capitalized throughout the Rules and Regulations.

Section Ten: **Publication and Application**

The provisions of this ordinance shall cause the amendment and republication of Rules 11, 20, 21, 22, 24, 25.5, and 142 of the permanent Rules and Regulations of the Monterey Peninsula Water Management District.

Section Eleven: **Effective Date and Sunset**

This ordinance shall take effect at 12:01 a.m. thirty (30) days after adoption.

This Ordinance shall not have a sunset date.

Section Twelve: **Severability**

If any subdivision, sentence, clause, or phrase of this ordinance is, for any reason, held to be invalid or unenforceable by a court of competent jurisdiction, such invalidity or unenforceability shall not affect the validity or enforcement of the remaining portions of this ordinance, or of any other provisions of the Monterey Peninsula Water Management District Rules and Regulations. It is the District's express intent that each remaining portion would have been adopted irrespective of the fact that one or more subdivisions, paragraphs, sentences, clauses, or phrases be declared invalid or unenforceable.

On motion of Director Brower, and second by Director Evans, the foregoing ordinance is adopted upon this 15th day of August, 2016, by the following vote:

AYES: Directors Brower, Evans, Byrne, Clarke, Lewis, Pendergrass and Potter
NAYS: None
ABSENT: None

I, David J. Stoldt, Secretary to the Board of Directors of the Monterey Peninsula Water Management District, hereby certify the foregoing is an ordinance duly adopted on the 15th day of August, 2016.

Witness my hand and seal of the Board of Directors this 12th day of September 2016.

David J. Stoldt, Secretary to the Board

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COPY CERTIFICATION

I, David J. Stoldt, Secretary to the Board of Directors of the Monterey Peninsula Water Management District, hereby certify the foregoing is a full, true and correct copy of Ordinance No. 172 duly adopted on the 15th day of August 2016.

David J. Stoldt
Secretary to the Board of Directors

9-12-16
Date

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