**Outdoor Landscape Water Conservation Model Ordinance Description**

This model ordinance is intended to help municipalities curtail water waste associated with excessive seasonal outdoor water usage, which can lead to an unnecessary reduction in reservoir storage, ground water levels, and stream flows. In addition, over-watering actually inhibits the health of the landscape and drought-tolerance of turf. This ordinance seeks to extend available supplies through short-term drought periods and avoid recurrent drought warnings/water emergencies necessitated by demand-driven water shortages.

This ordinance limits water to two day per week. Some municipalities permit outdoor water on odd or even days based on the last digit of a street address. This typical odd/even watering schedules is **not** recommended as water use has been shown to increase because property owners tend to over-water on days when watering is permitted. Therefore, ordinances with odd/even schedules, unless it limits watering to two days a week, will not be eligible for credit in Sustainable Jersey. Municipalities should consider enforceability when determining how to establish the most appropriate watering schedule for their communities. An example of an effective structure would be to allow watering on the same days as garbage/recycling collection (if your community has a 2 day per week garbage collection schedule) or the same days as garbage/recycling collection and a weekend day (if your community only has a 1 day per week collection schedule). In addition, this ordinance contains morning and late afternoon/early evening irrigation periods to capitalize on low evapotranspiration (ET) rates and specifies a watering duration limit of 30 minutes per area to reduce over-watering. This stipulation varies for those that have automatic irrigation systems with rotary irrigation heads, SMART irrigation systems, or a qualified irrigation manager.

Regardless of the type of schedule structure implemented, it should be understood that irrigation in New Jersey is intended to be supplemental to natural rainfall and that following periods of rain, lawns and landscapes may not need any additional watering.

Finally, this ordinance recommends extending the reach of the State rain sensor law by requiring that all automatic irrigation systems are equipped with operational rain sensors regardless of the year of installation. The current State law (NJSA 52:27D-123.13) requires systems installed after September 8, 2000, to be equipped with an operational rain sensor. Municipalities should consider monitoring this requirement through a combination of routine monitoring and inspections, including Time of Sale and Certificate of Occupancy inspections.

**<MUNICIPALITY>**

**ORDINANCE NO. \_\_\_\_\_\_**

AN ORDINANCE OF THE <MUNICIPALITY> IN <COUNTY> COUNTY, AMENDING THE CODE OF THE <MUNICIPALITY>, BY ADDING A SECTION ENTITLED X-XX, OUTDOOR LANDSCAPE WATER CONSERVATION GUIDELINES.

**WHEREAS,** the water supplies within the <MUNICIPALITY> should be protected to afford the greatest beneficial use to <MUNICIPALITY> citizens and businesses, which depend on adequate water supplies for their livelihood, health, welfare, and economic production; and

**WHEREAS,** the water resources associated with the <MUNICIPALITY> have been threatened in the past due to drought conditions; and

**WHEREAS,** there exists a need to ensure water is available for uses essential to the health, welfare and safety of the <MUNICIPALITY> and for averting or lessening the impact of any water shortage; and

**WHEREAS,** taking steps to ensure clean, wholesome, and adequate water supplies is a high priority in protecting the health, safety, and welfare of <MUNICIPALITY> citizens;

**WHEREAS,** pursuant to N.J.S.A. 40:48-2, the <MUNICIPALITY> has the power to adopt ordinances necessary and proper for the protection of persons and property, and the preservation of the public health, safety and welfare;

**BE IT ORDAINED** by the <MUNICIPALITY> Committee of the <MUNICIPALITY> in <COUNTY> County as follows:

**Section x-xx.** The Code of the <MUNICIPALITY> in <COUNTY> County (year) shall be amended by the addition of Section x-xx, entitled, “Outdoor Landscape Water Conservation Ordinance”, to read as follows:

1. **Water Use Restrictions**

Restrictions on outdoor landscape water use apply to all users in <MUNICIPALITY> at all times regardless of source of supply (e.g. public water supplies, well or ground water, lakes, streams, or ponds) unless expressly exempt in *V. Exemptions.* Such water use shall conform to the following Outdoor Landscape Water Use Restrictions:

* 1. Lawn watering with a hose or hose-end sprinkler
     1. May only be done two days per week (*Choose one of the 2 examples below or develop another structure better suited for the individual municipality)*

1. *Example 1*- Properties may only water 2 days per week.

Properties with even number addresses may only water on Mondays and Thursday, properties with odd number addresses may only water on Tuesday and Fridays.

1. *Example 2*- Properties may only water 2 days a week to coincide with trash pickup days;
   * 1. Watering shall only be conducted between the hours of 6:00 a.m. and 9:00 a.m. or between 5:00 p.m. and 8:00 p.m.;
     2. The watering of any single area shall not exceed thirty minutes per day;
     3. Flowers and shrubs may be watered as needed with a hand-held hose equipped with an automatic shut-off nozzle;
     4. No hose or hose-end watering shall be permitted when it is raining.
   1. Irrigating lawns and landscapes with automatic irrigation systems equipped with a conventional irrigation controller (this includes all systems that do not have a “SMART” controller as defined in section I.C)
      1. May only be done two days per week *(Choose one of the 2 examples below or develop another structure better suited to individual municipalities)*
   2. *Example 1* – Properties may only irrigate 2 days per week. Properties with even number addresses may only irrigate on Mondays and Thursdays, properties with odd number addresses may only irrigate on Tuesdays and Fridays.
   3. *Example 2* – Properties may only irrigate 2 days a week to coincide with trash pickup days;
      1. Irrigation shall only be conducted between the hours of 12:00 midnight and 10:00 a.m.
      2. Operation of any irrigation zone equipped with spray (mist) heads shall not exceed 15 minutes per zone. Operation of any irrigation zone equipped with rotary sprinkler heads shall not exceed 50 minutes per zone.
   4. Irrigation with systems equipped with a SMART controller
2. To qualify for this provision, the SMART controller must have met the minimum requirements of IA-SWAT protocol testing. Lists of climate-based and sensor-based controllers that have successfully completed the protocol testing can be found at <http://www.irrigation.org/Tested_Products.aspx>
3. The property owner must register the SMART controller with the municipality
   1. The municipality will issue a yard placard which the owner must display signifying that the property is irrigated with a SMART controller
4. The SMART controller must be programmed by an EPA WaterSense Partner who holds a New Jersey Landscape Irrigation Contractor Certificate pursuant to NJSA 45:5AA-3.
5. The SMART controller must be programmed to irrigate between the hours of 12:00 midnight and 10:00 am;
6. Proper sprinkler head data and accurate soil/plant/irrigation information must be entered;
7. The SMART controller programming data shall be posted at the controller;
8. The WaterSense Partner must make a minimum of two site visits after the initial programming to adjust and fine tune the irrigation schedule.
   1. Irrigation systems programmed and monitored by an irrigation manager
9. The property owner must designate a qualified person who will be the irrigation manager and register that person with the municipality with defining qualifications.
   1. The municipality will issue a yard placard which the owner must display signifying that the property is irrigated by an irrigation manager.
10. The irrigation manager must be an EPA WaterSense Partner or show evidence of successfully completing one of the approved courses listed below:
    * + - 1. Rutgers University Continuing Education Course, *Irrigation Systems: Scheduling*
          2. Irrigation Association’s online course, *Landscape Irrigation Scheduling.*
          3. A comparable course offered by a recognized continuing education facility or professional association.
11. A property specific irrigation program shall be developed by the irrigation manager based on plant variety, soil type, exposure, slope, precipitation rate, and irrigation efficiency.
12. Weekly adjustments shall be made to the irrigation schedule based on current evapotranspiration (ET) rates or weather conditions.
13. If it is found that an irrigation manager does not follow any of the terms prescribed in this ordinance, they may be disqualified from acting as a properties irrigation manager.
    1. All automatic irrigation systems:
       1. Shall be equipped with an operational automatic rain sensor device, which disables the system when a predetermined amount of rainfall has occurred. Each rain sensor device shall be capable of and programmed to interrupt the automatic irrigation cycle when ¼ inch of rain has fallen.
       2. Any work performed on a system as a result of any inspection made by the homeowner or a professional must be in compliance with the Landscape Irrigation Contractor Certification Act of 1991 (NJSA 45:5AA-3).
       3. Flowers and shrubs irrigated with drip or micro irrigation may be watered as needed.
    2. All new irrigation systems must comply with the following:
14. The system must be installed by an EPA WaterSense Partner who holds a New Jersey Landscape Irrigation Contractor Certificate pursuant to NJSA 45:5AA-3.
15. New Jersey Irrigation Best Management Design Practices are listed below:
    * + - 1. designing a system that insures sufficient operating pressure at the sprinkler head;
          2. dividing irrigated areas into hydro-zones of turf and plants with similar water requirements;
          3. creating zoning systems according to exposure;
          4. considering the soil type so the sprinkler irrigation precipitation rate is compatible with the soil infiltration rate or dividing the zone runtimes into multiple short cycles;
          5. providing separate control of sloped areas;
          6. preventing sprinkler heads from overthrowing onto driveways, roads, and sidewalks;
          7. providing for separate irrigation for parkway strips between curbs and sidewalks that minimizes overthrow onto walks, pavement, and other impervious surfaces;
          8. using pressure regulating technology as necessary to ensure sprinkler heads operate within the manufacturer’s recommended range. The pressure regulation may be:

a pressure regulation device at the point of connection;

pressure regulation at each remote control valve;

pressure regulation at the sprinkler head;

a combination of the above.

* + - * 1. irrigating all flowers and shrubs with drip and/or micro-irrigation;
        2. including check valves in low sprinkler heads to prevent low-point drainage;
        3. having a pressure regulating device and wye strainer on each drip/micro control valve.

3. System must have a SMART controller capable of estimating or measuring depletion of available plant soil moisture and operating the irrigation system only to replenish the water as needed while minimizing excess water use.

The SMART controller must be an EPA WaterSense labeled SMART controller and listed on their website <http://www.epa.gov/watersense/product_search.html> and select irrigation controllers from the drop down menu.

The SMART controller must be programmed by an EPA WaterSense Partner who holds a New Jersey Landscape Irrigation Contractor Certificate pursuant to NJSA 45:5AA-3.

Proper sprinkler head data and accurate soil/plant/irrigation information must be entered;

The SMART controller programming data shall be posted at the controller;

The WaterSense partner must make a minimum of two site visits after the initial programming to adjust and fine tune the irrigation schedule.

H. Upon the Declaration of Water Emergency by the <MUNICIPAL GOVERNING BODY>additional restrictions may be imposed and shall supersede the restrictions in this ordinance.

I. State of New Jersey requirements shall supersede those identified in this Section when more stringent than those identified in this ordinance.

**II. Violations**

A. Violations include knowingly or recklessly watering or irrigating or permitting irrigation of lawn or landscape on owned, leased, or managed property that results in the following:

* + 1. Watering during any form of precipitation;
    2. Water leaking from any irrigation equipment;
    3. Water puddling on landscape or impervious surfaces;
    4. Water run-off from irrigated property;
    5. Irrigating on days not permitted in this ordinance;
    6. Irrigating at hours not permitted in this ordinance.

B. Violators of these guidelines and requirements are subject to fines and penalties described in *IV. Penalties*.

C. All water users in <MUNICIPALITY> are responsible for preventing the above violations.

**III. Enforcement of Water Conservation Guidelines**

The water use restrictions and automatic rain sensor requirement imposed pursuant to this section shall be enforced by the local authorized official. Whenever a local authorized official shall find a violation of the water use restrictions, regardless of the source of the water (public supply or private source), such authorized official shall issue a written warning and explain the penalties for a second and third offense, as provided in subsection IV. The local authorized official shall keep such records as may be reasonable and necessary for the purpose of determining the persons and businesses who have been warned upon a first offense. The local authorized official is hereby empowered to write summons for the violation of the water use restrictions imposed pursuant to this section.

**IV.** **Penalties**

After a warning for a first offense in accordance with subsection III above, any person or business that thereafter violates the water use restrictions imposed pursuant to this section shall be subject to the penalty provisions stated at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**V.** **Exemptions**

Restrictions in Section x-xx above do not apply to the following:

* 1. Outdoor water use from rain water harvesting, gray water, or reclaimed water are exempt from the provisions of the ordinance. Use of gray or reclaimed water must have an approved NJPDES permit issued through the NJDEP.
  2. Outdoor water use for commercial farms producing harvestable crops, commercial nurseries, sod farms and golf courses are exempt from the provisions of the ordinance.
  3. Outdoor irrigation necessary for one day only where treatment with an application of chemicals require immediate watering to preserve an existing landscape or to establish a new landscape.
  4. Outdoor irrigation necessary for the establishment of newly sodded lawns or landscaping within the first 21 consecutive days of planting.
  5. Visually supervised operation of an irrigation system by a person in compliance with the New Jersey Landscape Irrigation Contractor Certification Act of 1991 (NJSA 45:5AA-1) and at the minimum rate necessary in order to check system condition and effectiveness.