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Strategies for Eliminating Irrigation Overspray and Runoff

Santa Monica Municipal Code 7.16.020 and 8.108 Subpart B prohibit irrigation overspray and/or runoff onto hardscapes such as gutters, streets or alleys. Any changes to your irrigation system must be in compliance with the Green Building Ordinance – visit **www.sustainablesm.org/landscape** for more info

Overspray -- Spray irrigation devices require frequent maintenance and adjustment to keep their spray directed where you want it.

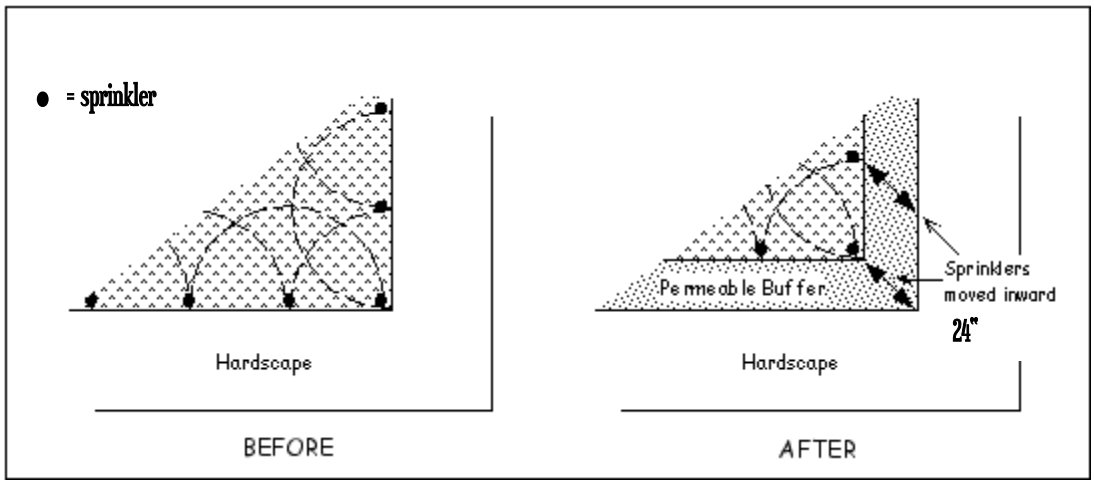
Here are five strategies for mitigating or eliminating overspray:

1. If your landscape is composed of individual plants, such as shrubs, rather than continuous groundcover like turf; convert your spray system to drip irrigation.

2. Relandscape with individual plants (one-gallon size or larger). You must convert the spray system to drip irrigation (with emitters 2 gph or less).

3. Replace the plant material with a permeable, non-living groundcover such as decomposed granite that will not require irrigation.

4. Install a buffer strip of permeable, non-living groundcover such as decomposed granite between the plant material and the hardscape. You must move the sprinkler heads inward 24 inches to the edge of the planting bed. (See drawing below) Because of the possibility of wind and misadjustment, this solution is not fool-proof.



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5. Install a non-spray irrigation system such as *ECS*, *SurfaceFlow, KISSS* or subsurface drip. See RESOURCES below. Note that these systems may be relatively costly.

Runoff results from overspray onto hardscape, application of water faster than the soil can absorb it and/or application of more water than the soil can hold.

Here are some strategies for eliminating runoff:

1. If the application rate is too fast –
   - A. Adjust your irrigation controller to apply the water in several short cycles with a soak-in period between cycles. This is especially important if the planting area is sloped.
   - B. If your landscape is several years old, have the soil aerated.
   - C. If your landscape is turf, have it dethatched. Your gardener should be able to do this.
   - D. If your irrigation system is composed of *sprayheads* (fixed spray patterns of quarter, half and full circles) with eight-foot or greater radius, change to rotor-type nozzles. See RESOURCES below.

2. If you are applying too much –
   - A. Adjust your irrigation controller. Use the Watering Calculator at http://www.bewaterwise.com for guidance.
   - B. Install a weather-sensitive irrigation controller that will automatically adjust itself for weather changes. See RESOURCES below.

RESOURCES

Rotor-Type Nozzles
- MP Rotator http://mprotator.com
- Rain Bird http://www.rainbird.com

Non-Spray Watering Systems
- SurfaceFlow http://jardinier-asis.com/turf.html
- ECS http://www.ecsgreen.com
- KISSS http://www.kisssusa.com/
- Subsurface Drip Products
  - Geo-Flow http://www.geoflow.com/landscape.html
  - Netafim http://www.netafim-usa-landscape.com/Landscape/

Explanation of Aeration
http://ag.arizona.edu/pubs/garden/mg/lawns/aeration.html

Explanation of Dethatching
http://ag.arizona.edu/pubs/garden/mg/lawns/dethatching.html

Examples of equipment for converting sprinklers to drip -
http://www.rainbird.com/drip/products/control/retrofit_kit.htm

Examples of weather-based controllers –
http://www.irrigation.org/SWAT/Industry/ia-tested.asp