

BMP LA02 - Landscape Irrigation



The Facilities Management Department uses potable water and ground water to irrigate landscaped areas throughout the CSUSM campus. Potable water irrigation consists of practices and procedures to manage the discharge of potential pollutants generated during discharges from irrigation water lines, landscape irrigation and lawn watering. Excess irrigation water on landscaped areas may result in runoff being conveyed into stormwater drainage systems. Potential pollutants that can discharge from the site can include nutrients, sediment, organic pollutants including pesticides. CSUSM staff will review the application of irrigation water to minimize runoff water into the stormwater conveyance systems.

Pollution Prevention Guidelines:

- Nozzles, intermitters, and other application equipment shall be maintained in good working condition.
- Direct potable water from sources including water nozzles around the CSUSM campus landscape/lawn and grass land areas.
- Shut off or isolate the water source(s) to broken pipelines, sprinklers, or valves as soon as possible to prevent excess non-stormwater flows. Repair any broken water lines as soon as possible.
- Adjust watering times and schedules to ensure that the appropriate amount of water is being utilized and minimize runoff. Consider factors such as soil structure, grade, time of year, and the type of plant material in determining the appropriate application of water.
- Where practicable, low-volume watering methods (e.g., drip-, sub-, and pulse irrigation) shall be used to minimize the potential for excess flows.
- Where practicable, tail-water recovery systems or subsurface drains shall be used to recycle irrigation water.
- Discharges from potable water line flushing should be reused for landscaping purposes. Percolating potable water will help keep the water on-site and prevent the non-stormwater discharge from collecting and discharging pollutants.

Design Guidelines:

- Design timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the stormwater conveyance systems.
- Erosion control mats and fabrics will be used in channels to reduce the potential for erosion. Sodding or seeding may also be used.
- Employ rain-triggered shutoff devices to prevent irrigation after precipitation.
- Design irrigation systems to each landscape area's specific water requirements.
- Include design featuring flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.
- Consider native vegetation shall be used to reduce water, fertilizer, and pesticide needs.

Inspection Guidelines:

- Routinely inspect irrigated areas within the CSUSM campus limits for excess watering. At a minimum, inspect the irrigation system on a weekly/monthly basis depending upon the season, scheduling and usage.
- Inspect landscaped areas immediately after watering for signs of excessive watering.
- Check the curb, gutters and storm drains for signs of excessive irrigation.
- Inspect irrigation lines and nozzles for any potential leaks and proper operation.

Appendix F
BMP Fact Sheets

Training Guidelines:

- Train staff on an annual/or as needed basis to recognize and address excessive watering, reduce runoff and protect storm drain conveyance systems.