



Fact Sheet on Phase II Permit Compliance Tracking for: E.11.j. Municipal Landscape Design and Maintenance and Pesticide Total Maximum Daily Load (TMDL)

To comply with the [Phase II Stormwater Permit](#) (Permit) each Marin’s cities, towns and the County must:

- Implement a landscape design and maintenance program to reduce the amount of water, pesticides, herbicides, and fertilizers used during operations and activities in their jurisdiction.
- Implement a Pesticide-Related Toxicity Control Program to comply with the Urban Creek Diazinon & Pesticide Toxicity Total Maximum Daily Load (Pesticide TMDL) described in [Attachment G](#) of the Permit.
- Annually, provide TMDL implementation information requested by MCSTOPPP. MCSTOPPP will prepare the required TMDL Status Report that your municipality will submit with the online annual report to the State Water Resources Control Board (State Board).

Table 1. Implement the requirements described in Table 1 to comply with the Pesticide TMDL and the E.11.j. requirements.

Requirement	Additional Information
Implement your Integrated Pest Management (IPM) Policy	Check with your local IPM Coordinator for details. Require all contractors to implement the adopted IPM policy/ordinance on municipally-owned and operated properties.
Properly dispose of unused pesticides, herbicides and fertilizers and evaluate use of these chemicals to identify pollution prevention and source control opportunities.	
Prohibit use of pesticide, herbicide and fertilizers affecting water quality as required by DPR 11-004	See http://www.cdpr.ca.gov/docs/legbills/rulepkgs/11-004/11-004.htm for more information.
Record the types and amounts of <u>pesticides</u> , <u>herbicides</u> and <u>fertilizers</u> used at municipally owned and operated properties and within the permit area in unincorporated areas of the County.	Be sure to track use on municipally owned and operated properties by the municipality’s hired contractors.
Prevent pesticide, herbicide and/or <u>fertilizer</u> application during irrigation ¹	Check with your supervisor to determine how this requirement is documented within your municipality. See <i>MCSTOPPP Guidance on Fertilizer Use</i> on page 3.
Prevent pesticide, herbicide or <u>fertilizer</u> application within 48 hours of >50% predicted rain	Check with your supervisor to determine how this requirement is documented within your municipality. Check National Oceanic & Atmosphere Administration (NOAA) three day forecast before applications http://www.wrh.noaa.gov/mtr/rain.php Or, use notification apps of impending rain (NOAA Weather Alert, Rain Alarm).
Minimize irrigation runoff by using an evapotranspiration-based irrigation schedule and rain sensors.	

¹ See fertilizer use guidance on page 4

Requirement	Additional Information
Collect and properly dispose of unused pesticides, herbicides and fertilizers.	
Amend soils with compost to create drought-resistant soils and a soil microbial community (consider using compost tea or inoculation to improve soil health)	Add compost at a rate of 2:1 (soil:compost). If a proprietary product is used, the manufacturer's instructions should be followed in terms of mixing and application rate.
Keep grass clippings and leaves away from waterways and out of the street	Use grass clippings and leaves in mulches or composts
Practice grasscycling - small clippings left to decompose quickly on decorative (non-athletic) turf	Mow when dry with sharp blades, cut less than 1/3 blade length, keep soil amended and healthy.
Limit or replace herbicide and pesticide use with physical controls	Manual weeding and insect removal Attract and trap pests with sticky traps Physical barriers (i.e. sheet mulch for weeds, coarse mulch border or copper tape borders for snails)
Limit or replace herbicide and pesticide use with biological controls	Use compost tea or commercial broad spectrum microbial solution on plants Plant flowers with lots of pollen to attract beneficial bugs (i.e. <i>Ceanothus</i> , <i>Heteromeles</i> , <i>Eschscholzia</i> , <i>Achillea</i> , <i>Eriogonum</i> , <i>Erigeron</i> , <i>Aster</i> , <i>Rudbeckia</i> , <i>Layia</i> , <i>Baccharis</i> , <i>Sambucus</i>) Use parasitic wasps
Limit or replace herbicide and pesticide use with horticultural controls	Use native, climate appropriate, and/or disease resistant plants Clean-up and remove diseased leaves or over ripe fruits Use compost or slow release fertilizers Use mulch or sheet mulching to prevent weeds
Limit or replace herbicide and pesticide use with least toxic chemical controls,	Insecticidal soaps Horticultural oils Boric Acid or food grade acids Corn gluten for broadleaf weed control
Keep Agriculture Commissioner informed of water quality issues related to pesticides.	MCSTOPPP will share Pesticide TMDL water quality monitoring results with the Agriculture Commissioner.
Keep Agriculture Commissioner informed of violations of pesticide regulations (e.g. illegal handling) associated with stormwater management.	Refer any pesticide misuse complaints to the County Agriculture Commissioner. Consumer complaint line: 415-473-7888. Office: 415-473-6700.
Monitor water and sediment for pesticides and associated toxicity (MCSTOPPP Task).	In FY 15-16 and 16-17 MCSTOPPP is conducting two years of monitoring on behalf of MCSTOPPP member agencies. MCSTOPPP will prepare a preliminary and a final report for submittal with your online annual report to the State Board.

IMPORTANT NOTE: The State Water Resources Control Board enforces the Statewide General NPDES Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications, Water Quality Order 2013-0002-DWQ, effective on December 1, 2013. This General Permit covers the point source discharge to waters of the United States of residues resulting from pesticide applications using products containing 2,4-D, acrolein, copper, diquat, endothall, fluridone, glyphosate, imazamox, imazapyr, penoxsulam, sodium carbonate peroxyhydrate, and triclopyr-based algaecides and aquatic herbicides, and adjuvants containing ingredients represented by the surrogate nonylphenol. For more information visit http://www.waterboards.ca.gov/water_issues/programs/npdes/pesticides/weed_control.shtml.

MCSTOPPP Guidance on Fertilizer Use to comply with Section E.11.j (ii) (b) 2) f) of the Phase II Permit

The water quality outcome goal of E.11.j.(ii)(b)2)f) is to prevent fertilizers from running off an application area into storm drains and water bodies. Municipalities must prevent application of pesticides, herbicides and fertilizers during irrigation or within 48 hours of predicted rainfall with greater than 50% probability as predicted by National Oceanic and Atmospheric Administration (NOAA).

To achieve compliance, satisfy the water quality outcome goals and meet landscaping needs, follow the guidelines below on property owned or maintained by the city, town or county:

1. Minimize fertilizer needs:
 - a. Routinely use compost-based soil amendments.
 - b. Use climate appropriate and native plants.
2. When applying fertilizer (this includes chemical **and** organic-based fertilizers), manage and monitor watering (irrigation) to infiltrate the fertilizer into the root zone and to minimize the chance of runoff from the landscaped area.
3. Avoid applying fertilizer (this includes chemical **and** organic-based fertilizers), before a normal irrigation pattern because the likelihood of the fertilizer running off may be high unless the irrigation system is properly designed and maintained to eliminate runoff from the landscaped area.
4. **Do not apply fertilizer (or pesticides/herbicides)** within 48 hours of predicted rainfall with greater than 50% probability as predicted by National Oceanic and Atmospheric Administration (NOAA). (this includes chemical **and** organic-based fertilizers) because there is a reasonable likelihood that the material will runoff. Assign a specific set of staff to track the weather and to track compliance.

If you require materials in alternative formats, please contact: 415-473-4381 voice/TTY or disabilityaccess@co.marin.ca.us