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## State Water Resources Control Board

### **CERTIFIED MULTI-BENEFIT TRASH TREATMENT SYSTEMS (Updated June 19, 2019)**

The State Water Resources Control Board (State Water Board) and Regional Water Quality Control Boards (Regional Water Boards) promote treatment designs that have multiple environmental benefits such as capture, reuse, treatment, and/or infiltration of stormwater runoff. Certain treatment designs that trap trash in accordance with the Trash Amendments<sup>1</sup> have been certified as 'Multi-Benefit Trash Treatment Systems' by the State Water Board Executive Director. Certified Multi-Benefit Trash Treatment Systems must be designed, installed, and maintained to perform in accordance with the following five (5) requirements:

1. A Multi-Benefit Trash Treatment System<sup>2</sup> shall be designed and maintained to trap trash particles that are 5-2mm or greater for the following:
  - a. The peak flow rate generated by the region specific 1-year, 1-hour storm event from the applicable sub-drainage area; or
  - b. The peak flow rate of the corresponding storm drain (if corresponding storm drain is designed for less than the peak flow rate generated from a 1-year, 1-hour storm event).
2. Multi-Benefit Trash Treatment System may include either or both of the following to trap trash particles for either flow described above in section 1.a or 1.b:
  - a. A screen at the system's inlet, overflow, or bypass outlet; or
  - b. An up-gradient structure designed to bypass flows exceeding the flows described above in section 1.a or 1. b.<sup>3</sup>
3. The peak flow rates referenced in section 1.a, above, shall be calculated using one of the following methods:

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<sup>1</sup> Resolution 2015-0019. Amendment to the Water Quality Control Plan for Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

<sup>2</sup> Certified Multi-Benefit Trash Treatment Systems, including those that are volume based, shall have a design capacity to trap trash from flows not less than the peak flow rate at any time within a storm event.

<sup>3</sup> Upon approval by the appropriate Regional Water Quality Control Board Executive Officer, a 5mm screen and/or upgradient structure may not be required if a Multi-Benefit Trash Treatment System is designed for flows generated from very large 24-hour storm events.

- a. For small drainage areas (generally less than 50 acres) - The Rational Equation Method is expressed as  $Q = CIA$  where:
    - Q = design flow rate, cubic feet per second;
    - C = runoff coefficient, dimensionless;
    - I = design rainfall intensity as determined per the rainfall isohyetal map specific to each region, inches/hour; and
    - A = subdrainage area, acres.
  - b. For large drainage areas (~50 acres or more) other accepted hydrologic mathematical methods are allowed that more accurately calculate peak flow rates from large drainage areas.
4. A Multi-Benefit Trash Treatment System Design shall be stamped and signed by a registered California licensed Professional Engineer as required by California Business & Profession Code sections 6700, et seq.

The owner shall establish a maintenance schedule based on site-specific factors, including the design trash capture capacity of the Multi-Benefit Trash Treatment System, storm frequency, and estimated or measured trash loading from the drainage area.

The Multi-Benefit Trash Treatment Systems linked below are certified by the State Water Board Executive Director. The linked information sheets describe the five types of Certified Multi-Benefit Trash Treatment Systems. Prior to installation of a of Certified Multi-Benefit Trash Treatment System, please contact the Trash Implementation Program staff via email ([Jaime.Favila@waterboards.ca.gov](mailto:Jaime.Favila@waterboards.ca.gov) or [Leo.Cosentini@waterboards.ca.gov](mailto:Leo.Cosentini@waterboards.ca.gov)) concerning questions on design requirements. The Executive Director reserves the right to remove any Multi-Benefit Trash Treatment System from this list.

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**Certified Multi-Benefit Trash Treatment Systems**

(Click links below to access description information sheets)

[Bioretention](#)

[Capture and Use Systems](#)

[Detention Basin](#)

[Infiltration Trench or Basin](#)

[Media Filter](#)