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## **Certified Multi-Benefit Trash Full Capture Systems** **(Updated September 22, 2022)**

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 designs that trap trash in accordance with the Trash Provisions<sup>1</sup> and have been certified as multi-benefit trash full capture systems (Multi-benefit Systems) by the State Water Board Executive Director's designee on August 4, 2017.

Certified Multi-benefit Systems must be designed, installed, and maintained to perform in accordance with the following four requirements:

1. A Multi-benefit System<sup>2</sup> shall be designed and maintained to trap trash particles that are 5-millimeter or greater for either of the following flow conditions:
  - a. The peak flow rate resulting from a one-year, one-hour storm event the sub-drainage area; or
  - b. At least the same flows as the corresponding storm drain.
2. A Multi-Benefit 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>

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<sup>1</sup> 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.

<sup>3</sup> Upon approval by the appropriate Regional Water Quality Control Board Executive Officer, a 5-millimeter 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.

3. The peak flow rates referenced in section 1.a, above, shall be calculated using one of the following methods:
  - 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 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.

A multi-benefit trash full capture system that is not designed in accordance with the requirements above may either be employed as part of an approach to achieve Track 2 trash full capture system equivalency targets or submitted for State Water Board Executive Director designee certification. See the *Application Requirements for Trash Full Capture System Certification* for more information concerning certification application requirements.

Linked below are information sheets for the five Multi-benefit Systems certified by the State Water Board Executive Director's designee. Please contact the Trash Implementation Program staff via email at [Leo.Cosentini@waterboards.ca.gov](mailto:Leo.Cosentini@waterboards.ca.gov) or by phone at (916) 341-5524 concerning questions on design requirements.

<b>State Water Resources Control Board Certified Multi-Benefit Trash Full Capture Systems</b>
<a href="#"><u>Bioretention</u></a>
<a href="#"><u>Capture and Use Systems</u></a>
<a href="#"><u>Detention Basin</u></a>
<a href="#"><u>Infiltration Trench or Basin</u></a>
<a href="#"><u>Media Filter</u></a>