



# Department of Environmental Protection

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## APPROVAL FOR GENERAL USE

Pursuant to Title 5, 310 CMR 15.000

### Name and Address of Applicant:

Infiltrator Water Technologies, LLC.  
P.O. Box 768  
6 Business Park Road  
Old Saybrook, CT 06475

Trade name of technology and model: High Capacity chamber, High Capacity H-20 chamber<sup>1</sup>, Quick4 High Capacity chamber, Quick4 High Capacity HD chamber, Quick4 Plus High Capacity chamber (8-inch invert), Quick4 Plus High Capacity chamber (13-inch invert), Standard chamber, Quick4 Standard chamber, Quick4 Standard HD chamber, Quick4 Plus Standard chamber (5.3-inch invert), Quick4 Plus Standard chamber (8.0-inch invert), Quick4 Plus Standard LP (Low Profile) chamber (3.3-inch invert), Quick4 Plus Standard LP (Low Profile) chamber (8-inch invert), Infiltrator 3050 (Storm Tech SC-740) chamber, Equalizer 24 chamber, Quick4 Equalizer 24 chamber, Equalizer 36 chamber, Quick4 Equalizer 36 chamber, Quick4 Equalizer 24 LP (Low Profile) chamber (6 inch invert), and Quick4 Equalizer 24 LP (Low Profile) chamber (2 inch invert) (hereinafter the "System"). Schematic drawings of the System and a design and installation manual are a part of this Certification. This approval allows the installation of the above identified chambers without aggregate.

Transmittal Number: **X259183**

Date of Revision: February 19, 2015, modified June 12, 2015

### Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental Protection hereby issues this Certification to: Infiltrator Water Technologies, LLC., P.O. Box 768, 6 Business Park Road, Old Saybrook, CT 06475 (hereinafter "the Company"), for General Use of the System described herein. The sale, design, installation, and use of the System are conditioned on compliance by the Company, the Designer, the Installer and the System Owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Approval constitutes a violation of 310 CMR 15.000.

David Ferris, Director  
Wastewater Management Program  
Bureau of Water Resources

June 12, 2015

Date

## I. Design Standards

- The models listed in Table 1 are covered under this Certification.

**Table 1: Chamber Dimensions**

<b>Model</b>	<b>Dimensions W x L x H Inches</b>	<b>Invert Height Inches</b>
Equalizer 24	15 x 100 x 11	6
Quick4 Equalizer 24	16 x 48 x 11	6
Quick4 Equalizer 24 LP (6-inch invert)	16 x 48 x 8	6 <sup>2</sup>
Quick4 Equalizer 24 LP (2-inch invert)	16 x 48 x 8	2
Equalizer 36	22 x 100 x 13.5	6
Quick4 Equalizer 36	22 x 48 x 12	6
Standard Chamber	34 x 75 x 12	6.5
Quick4 Standard	34 x 48 x 12	8
Quick4 Standard HD	34 x 48 x 12	8
Quick4 Plus Standard (5.3-inch invert)	34 x 48 x 12	5.3
Quick4 Plus Standard (8-inch invert)	34 x 48 x 12	8
Quick4 Plus Standard LP (3.3-inch invert)	34 x 48 x 8	3.3
Quick4 Plus Standard LP (8-inch invert)	34 x 48 x 8	8 <sup>3</sup>
Infiltrator 3050 or StormTech SC-740	51 x 85.4 x 30	22.25 <sup>4</sup>
High Capacity Chamber	34 x 75 x 16	11
High Capacity H-20 <sup>1</sup> Chamber	34 x 75 x 16	11
Quick4 High Capacity	34 x 48 x 16	11.5
Quick4 High Capacity HD	34 x 48 x 16	11.5
Quick4 Plus High Capacity (8-inch invert)	34 x 48 x 14	8
Quick4 Plus High Capacity (13-inch invert)	34 x 48 x 14	13 <sup>5</sup>

<sup>1</sup> This approval allows the use of the high capacity H-20 chambers but makes no determination as to the chambers meeting the H-20 loading requirements.

<sup>2</sup> Includes Infiltrator Multiport™ invert adapter attached to the side of the end cap.

<sup>3</sup> Includes Quick4 Plus Periscope adapter attached to the top of the Quick4 Plus All-in-One 8 Endcap.

<sup>4</sup> Only systems installed with this invert height shall be allowed to use the effective leaching area associated with this model in Table 2.

<sup>5</sup> Includes Quick4 Plus Periscope adapter attached to the top of the Quick4 Plus All-in-One 12 Endcap.

- The System is an open-bottom leaching unit molded from polyolefin resin. It can be installed without aggregate or distribution pipe as an absorption trench or as a bed or field. If the System is installed with stone aggregate then the “Effective Leaching Area” in Tables 2 and 3 is not applicable, and must be designed in accordance with the provisions of 310 CMR 15.000.

3. The total effective leaching area for any Chamber Model shall be calculated by multiplying the Effective Leaching Area per square foot of chamber times the total length of chamber from end cap to end cap including end caps.
4. For new construction or upgrades, the applicant can size the System in a trench configuration, using the effective leaching areas presented in Table 2.

**Table 2: Effective Leaching Area in Trench Configuration for New Construction and Remedial Sites<sup>6</sup>**

<b>Model</b>	<b>Effective Leaching<sup>7</sup> Area SF/LF</b>	<b>Effective Leaching<sup>8</sup> Area SF/LF</b>
Equalizer 24	3.76	N/A
Quick4 Equalizer 24	3.90	N/A
Quick4 Equalizer 24 LP (6-inch invert)	3.90	N/A
Quick4 Equalizer 24 LP (2-inch invert)	2.78	N/A
Equalizer 36	4.73	N/A
Quick4 Equalizer 36	4.73	N/A
Standard Chamber	6.53	N/A
Quick4 Standard	6.96	N/A
Quick4 Standard HD	6.96	N/A
Quick4 Plus Standard (5.3-inch invert)	6.20	N/A
Quick4 Plus Standard (8-inch invert)	6.96	N/A
Quick4 Plus Standard LP (3.3-inch invert)	5.65	N/A
Quick4 Plus Standard LP (8-inch invert)	6.96	N/A
Infiltrator 3050 or StormTech SC-740	N/A	6.71 <sup>9</sup>
High Capacity Chamber	7.79	N/A
High Capacity H-20 <sup>1</sup> Chamber <sup>1</sup>	7.79	N/A
Quick4 High Capacity	7.93	N/A
Quick4 High Capacity HD	7.93	N/A
Quick4 Plus High Capacity (8-inch invert)	6.96	N/A
Quick4 Plus High Capacity (13-inch invert)	7.93	N/A

<sup>6</sup>. Effective April 21, 2006, 310 CMR 15.251(1)(b) maximum trench width is 3 feet.

<sup>7</sup>. Effective leaching area is equal to  $1.67$  (bottom width +  $(2 \times$  invert height)) for Systems 3 feet or less in width.

<sup>8</sup>. Effective leaching area is equal to  $1.0$  ( $3 + (2 \times$  invert Height)) for Systems with a width greater than 3 feet.

<sup>9</sup>. The maximum trench width allowed to calculate effective leaching area is 3 feet.

5. Systems installed on remedial sites shall be allowed to utilize the effective leaching areas presented in Tables 2 or 3, or additional reductions in soil absorption system may be allowed. In no instance shall the reduction in the soil absorption system required in 310 CMR 15.242 exceed the maximum reduction allowed for alternative systems approved in accordance with 310 CMR 15.284.

6. For new construction or an upgrade, the applicant can size the System in bed or field configuration, using the effective leaching areas presented in Table 3.

**Table 3: Effective Leaching Area for Bed or Field Configuration New Construction and Remedial Sites**

Model	Effective Leaching <sup>10</sup> Area SF/LF
Equalizer 24	2.09
Quick4 Equalizer 24	2.23
Quick4 Equalizer 24 LP (6-inch invert)	2.23
Quick4 Equalizer 24 LP (2-inch invert)	2.23
Equalizer 36	3.06
Quick4 Equalizer 36	3.06
Standard Chamber	4.73
Quick4 Standard	4.73
Quick4 Standard HD	4.73
Quick4 Plus Standard (5.3-inch invert)	4.73
Quick4 Plus Standard (8-inch invert)	4.73
Quick4 Plus Standard LP (3.3-inch invert)	4.73
Quick4 Plus Standard LP (8-inch invert)	4.73
Infiltrator 3050 or StormTech SC-740	7.10
High Capacity Chamber	4.73
High Capacity H-20 <sup>1</sup> Chamber	4.73
Quick4 High Capacity	4.73
Quick4 High Capacity HD	4.73
Quick4 Plus High Capacity (8-inch invert)	4.73
Quick4 Plus High Capacity (13-inch invert)	4.73

<sup>10</sup>. Effective Leaching area is equal to 1.67 times bottom width only.

7. When the System is used with a secondary treatment unit approved in accordance with 310 CMR 15.284 or 15.288, additional reductions in soil absorption system may be allowed. In these situations the reduction in the SAS cannot exceed the maximum allowed under the secondary treatment units approval. In no instance shall the reduction in the soil absorption system area required in 310 CMR 15.242 exceed the maximum reduction allowed for alternative systems approved in accordance with 310 CMR 15.284.

## II. Special Conditions

1. The System is an approved Alternative Chamber for use as an Alternative Soil Absorption System. In addition to the Special Conditions contained in this Approval, the System shall comply with the “*Standard Conditions for Alternative SAS with General Use Certification and/or Approved for Remedial Use*” (the

'Standard Conditions'), except where stated otherwise in these Special Conditions.

2. New Construction This Certification is for the installation of a System to serve new construction or an existing facility with a proposed increase in flow, for which a site evaluation in compliance with 310 CMR 15.000 has been approved by the Approving Authority and the site meets the siting requirements for new construction, as provided in Paragraph 6 in section II Design and Installation Requirements of the Standard Conditions.
3. Remedial Site This General Use Certification also applies to the installation of a System for the upgrade or replacement of an existing failed or nonconforming system, provided that the facility meets the siting requirements for upgrades, as provided in Paragraph 7 in section II Design and Installation Requirements of the Standard Conditions
4. The System shall be exempt from the minimum inlet spacing requirements of 310 CMR 15.253.
5. The System shall have a minimum of one inspection port through the top of one of the chambers. The inspection port shall be capped with a screw type cap and accessible to within three inches of finish grade.
6. When the System is installed in trench configuration, then the system shall comply with these requirements:
  - a) Length (each trench) 100 feet maximum (310 CMR 15.251(1)(a));
  - b) Width (each trench) 2 feet minimum to 3 feet maximum (310 CMR 15.251(1)(b)). - Chambers greater than 3 feet wide, when specifically approved, are subject to other Special Conditions and limitations;
  - c) The minimum separation distance between any two trenches shall be two times the effective width or depth of each trench, whichever is greater, or where the area between trenches is designated as reserve area, three times the effective width or depth of each trench, whichever is greater (310 CMR 15.251(1)(d));
  - d) The effective leaching area shall be calculated using the bottom area and a maximum of two feet (per side) of side wall area for each trench (310 CMR 15.251(1)(e));
  - e) Trenches shall be situated, where possible, with their long dimension perpendicular to the slope of the natural soil. Where possible they shall follow the contour lines (310 CMR 15.251(2));
  - f) Trenches constructed at different elevations shall be designed to prevent effluent from the higher trench(es) flowing into the lower trench(es) (310 CMR 15.251(3));
  - g) The area between trenches may be designated as system reserve area only where the separation distance between the excavation sidewalls of the primary trenches is at least three times the effective width or depth of each trench, whichever is greater (310 CMR 15.251(4)) - Chambers greater than 3 feet

- wide, when specifically approved, shall be separated by three times the actual width and are subject to other Special Conditions and limitations; and
- h) Effluent distribution lines exceeding 50 feet in length shall be connected and venting provided in accordance with 310 CMR 15.241 (310 CMR 15.251(11)).
7. When installed in trench configuration, approved Alternative Chambers greater than 3 feet wide:
- a) shall be installed with a minimum separation distance between any two trenches of two times the actual width of the chamber, or where the area between trenches is designated as reserve area, three times the actual width of the chamber; and
  - b) shall only be entitled to a maximum effective width of 3 feet for the purposes of calculating total effective leaching area.
8. When installed in a bed or field configuration, the System may be installed without distribution piping, but must comply with the following requirements in 310 CMR 15.252:
- a) the use of leaching beds or fields is restricted to systems with a calculated design flow of less than 5,000 gpd per leaching bed or field (310 CMR 15.252(1));
  - b) the maximum length of chambers in series shall be 100 feet (310 CMR 15.252(2)(b));
  - c) separation distance between adjacent beds/fields shall be ten feet (310 CMR 15.252(2)(f)); and
  - d) the effective leaching area shall include only the bottom area, not the sidewalls (310 CMR 15.252(2)(i)).
9. For Systems constructed in fill and installed, the System shall be installed as specified in 310 CMR 15.255 Construction in Fill, except the minimum 15 foot horizontal separation distance to be provided between the soil absorption area and the adjacent side slope shall be measured horizontally from the top of the chamber.
10. The System is exempt from 310 CMR 15.287, specifically items: (5) requiring written notification of alternative system prior to property transfer, (6) need for a certified operator, (9) need for an operation and maintenance contract with an operator and (10) deed notice requirement.