

# Manufactured Stormwater Treatment Technology Submittal Requirements

(Stormwater Management Manual Chapter 2, Section 2.4.8)

This section outlines the submittal requirements and review process for vendors/manufacturers of proprietary treatment systems who seek to be on the City of Portland's list of approved devices.

The current list of approved manufactured stormwater treatment technologies is online at [www.portlandoregon.gov/bes/swmm](http://www.portlandoregon.gov/bes/swmm).

## Introduction

The City of Portland maintains a list of approved manufactured stormwater treatment technologies that can be used under the Stormwater Management Manual Performance Approach. Manufacturers of stormwater treatment technologies who seek to be on the approved list must apply and follow these submittal requirements. The approval process evaluates the manufactured stormwater treatment technology for its effectiveness in meeting the pollution reduction requirements of the *Stormwater Management Manual* and Portland City Code 17.38.

Engineers or qualified design professionals who wish to use manufactured stormwater treatment technologies not on the approved list must use the Performance Approach for a specific site development or improvement proposal. Approvals under the Performance Approach are site specific and do not imply any wider approval or precedent.

The Washington State Department of Ecology (DOE) Technology Assessment Protocol (TAPE) is a standard method by which many Northwest municipalities evaluate and approve manufactured stormwater treatment technologies for use in their communities. The City of Portland requires that manufactured stormwater treatment technologies must have a current general use level designation (GULD) by Washington State DOE under TAPE prior to application and review to the City of Portland. The Bureau of Environmental Services (BES) has decision-making authority to approve, deny, or revoke the use of manufactured stormwater treatment technologies within the City of Portland at any time, regardless of previous certification by DOE or prior approval by BES.

## TAPE (Technology Assessment Protocol – Ecology)

Washington State Department of Ecology evaluates treatment technologies through TAPE. An overview of the process, submittal requirements, and a list of DOE approved technologies are online at:

<http://www.ecy.wa.gov/programs/wq/stormwater/newtech/index.html>

### Performance Criteria

Applicants (including, but not limited to, manufacturers, product vendors, consultants or any other person promoting the manufactured stormwater treatment technology) should ensure that the manufactured stormwater treatment technology meets Portland’s pollution reduction requirements. The Stormwater Management Manual includes the following pollution reduction requirements:

#### Total Suspended Solids

The pollution reduction performance goal for the City is 70 percent removal of total suspended solids (TSS) from 90 percent of the average annual runoff (see [Chapter 1, Section 1.3.3](#)).

#### Total Maximum Daily Load and 303(d) Listed Parameters

Certain watersheds within the City of Portland have established Total Maximum Daily Loads (TMDLs). The TMDLs apply specific pollution control requirements to designated pollutants of concern. To ensure that new development does not contribute pollutants of concern to a TMDL watershed, pollution reduction facilities are required to demonstrate specific removal rates for those specific pollutants. See Exhibit 1-5 in Section 1.3.3 of the Stormwater Management Manual for a current list of TMDL watersheds with corresponding pollutant parameters. TSS may be used as a surrogate for aldrin, chlordane, DDE, DDT, dieldrin, dioxin, and PCBs.

### Application Process

Applicants seeking BES approval of manufactured stormwater treatment technologies must submit an application form, a cover letter, all required documentation, and an application fee. The review process consists of a public presentation about the manufactured stormwater treatment technology, a technical interview, and third-party review of the documentation.

The application form, application fee, and cover letter should be submitted to:

City of Portland, Environmental Services  
ATTN: Engineering Services Support Program Manager  
1120 SW 5th Ave., Suite 1000  
Portland, OR 97204

All other required documents should be submitted digitally: one set of PDF file(s), and one set of native files if available in standard format. For example, if analysis or data tracking was done using Excel, submit the original Excel files. All data and documentation necessary to verify performance must be included in the application. BES may request additional documentation or data during the review process.

BES will provide a single point of contact for applicants that will facilitate and track the application process. All correspondence and communication with the City of Portland regarding the application must be through the single point of contact. BES will review one complete application at a time in the order received. BES will convene a Review Committee that will attend the public presentation and the technical interview, review the application and the third-party review evaluation, determine any conditions of use, and maintain the list of approved manufactured stormwater treatment technologies. Following submission of a complete application, BES will provide the Applicant with a list of Review Committee members and single point of contact for any questions or coordination needs.

#### Required Submittals

Applicants must submit all of the following documents. Submitting an application does not guarantee that BES will approve a manufactured stormwater treatment technology. BES will review only manufactured stormwater treatment technologies that have achieved TAPE GULD certification.

All information provided to the City must be public record and subject to public disclosure pursuant to Oregon public record laws (ORS 192.410 to 192.505). Any portion of an application that the applicant claims as exempt from disclosure must meet the requirements of ORS 192.501(2) and ORS 192.502(4) and/or ORS 646.461 et seq. In order for such information to be considered exempt from public disclosure, the applicant must certify that the information is unique to the design and construction of the technology, or release to the public or to a competitor would adversely affect the competitive position of the proponent. All monitoring data including, but not limited to, laboratory results and field measurements, QA/QC data, data qualifiers, and monitoring site information cannot be considered confidential.

The applicant must mark only those pages that contain information exempt from public disclosure with the word “confidential” and provide a letter of explanation as to why these pages are exempt from public disclosure. The fact that an applicant marks information as exempt from disclosure does not mean that the information is necessarily exempt. Review of information exempt from public disclosure will be limited to the Review Committee and the Third Party Review.

### ***Application Form***

Applicants must submit a Manufactured Stormwater Treatment Technology Application Form. Applicants must complete the form in full.

### ***Application Fee***

Applicant must pay the application fee at the time of application submission. Checks must be made out to the City of Portland. The fee will cover costs of the third-party evaluation as well as City staff time to process, coordinate, and review the application. The current fiscal year's application fee is shown on the application form.

### ***Cover Letter***

The cover letter must be a single page and include the following:

- The name of the device with a short description of its intended application within the City of Portland.
- A summary of the TAPE history for the device, including the date of achieving GULD certification.
- A summary of the treatment performance goals, specific land uses, and targeted pollutants for which the device received TAPE certification.
- The signature of a company representative authorized to submit the application.

### ***TAPE Documentation***

All final documentation used to achieve TAPE GULD certification from Washington State DOE. This includes:

- Technology Evaluation Report (TER), including appendices and any third party review memorandum.
- Quality Assurance Project Plan (QUAPP), including any appendices.
- The most recent General Use Level Designation provided by DOE.

Submit TAPE documentation to BES as it was submitted to Washington State DOE. Do not re-order or otherwise modify the TER or QUAPP. If the TAPE documentation does not clearly demonstrate compliance with Portland's required pollution reduction standards, provide additional testing plus analysis. If the TAPE GULD approval was dependent on increased sizing or reduced treatment flow rates, provide that justification and analysis. If TAPE GULD certification required post-installation maintenance analysis, provide that as supplemental information.

### ***Design Information***

Submit standard details for all configurations, orientations, and bypass options under consideration. If there are unit components that have different sizing criteria, provide criteria and sizing for all unit components. Provide flow-based sizing to meet Portland's pollution reduction requirements (including any sizing assumptions or requirements as per the TAPE GULD certification) for a unit's receiving drainage area (square feet or acre). If unit is inclusively designed for volume-based sizing, provide that as well, as measured in a unit's receiving drainage area (square feet or acre).

### ***References***

Provide references for at least two public agencies who have had installations in the public right-of-way installed for at least two years. The references should be from public works departments or other stormwater operations and maintenance departments who have knowledge and experience with maintenance activities and inspection frequencies.

### ***Additional Product Information***

If installation guides, maintenance guides, or recommended plant lists have been updated since GULD designation, provide the most recent information. Provide current marketing material for only the MSTT under consideration.

## **BES Evaluation Process**

Following application submittal to BES, BES will review and determine if the application is complete. After BES deems an application complete, the presentation and interview should be scheduled within 30 business days.

### **Public Presentation and Technical Interview**

BES will work with the applicant, the Review Committee, and third-party reviewers to arrange a public presentation of the proposed manufactured stormwater treatment technology. At the conclusion of the presentation, there will be a technical interview of the applicant about the proposed manufactured stormwater treatment technology. The interview will not be open to the public and will consist only of the Review Committee, third-party reviewers, and the applicant.

BES staff will make reasoned decisions about manufactured stormwater treatment technologies and their application in the Portland metro area based on "best professional judgment" of the evidence provided. The TER, submitted as part of the TAPE process, will be critical to understanding the applications and characteristics of the technology and how it will be used in Portland, Oregon. The applicant should be

prepared to respond to each of the key sections of the TER as they are applicable to the Portland area. Applicants should also be prepared to discuss or provide local or regional examples of operation and maintenance of systems by public agencies and/or private entities.

### Third-Party Review

Following the public presentation and technical interview, the third-party review should be complete within 90 business days. BES will engage a consultant or academic institution to evaluate the manufactured stormwater treatment technology for use within the City of Portland. The third-party review will compare the data used to achieve GULD certification against the pollution reduction requirements for the City of Portland as identified in City Code 17.38 and the Stormwater Management Manual. The third-party review will evaluate whether the manufactured stormwater treatment technology meets Portland's pollution reduction requirements. The third-party review will evaluate water quality data and storm event intensity.

### BES Review Determination

BES will make a final decision of approval or denial within 30 business days following completion of a third-party review. BES has decision-making authority for approval of manufactured stormwater treatment technologies for use within the City of Portland and may place conditions of approval to provide consistency with local zoning or land use requirements, or to meet watershed-specific water quality requirements. Conditions may include, but are not limited to, maximum flow rates, limitations on drainage basin size, or installation locations.

BES may at any time suspend or revoke approval of a manufactured stormwater treatment technology if the performance of the technology does not meet the approval performance criteria, or if the performance criteria changes due to local, state, or federal pollution reduction requirements.

### Appeals

If the applicant does not agree with the outcome or conditions of the evaluation process, the applicant may request an Administrative Review, as per Section 1.6.

### Renewal Process

Manufactured stormwater treatment technologies will be approved for 36 months from the date of approval. If no changes to the manufactured stormwater treatment technology occur (such as, but not limited to, dimensional changes to the physical device, changes to the filtration media, changes to maintenance requirements, or changes in expected performance or device design criteria), the

approval can be renewed. At the end of the approval period, the applicant may notify BES of their intent to renew their approval for a subsequent 36 months. If any changes, updates or revisions, have occurred to the manufactured stormwater treatment technology, the applicant must obtain TAPE GULD certification and re-apply following the submission guidelines in effect at the time of application, including fee payment.

To renew approval of a manufactured stormwater treatment technology, the applicant must submit an application form noting the intent to renew an existing approved manufactured stormwater treatment technology. There is no cost to renew an existing approval. The renewal will begin on the date that BES determines the renewal form is complete.

If an applicant submits a renewal request and the pollution reduction requirements or the evaluation criteria have changed since the original approval, BES may require the applicant to re-apply.