

**MANUFACTURED
STORMWATER
TREATMENT
TECHNOLOGIES**

**SUBMITTAL
GUIDELINES**



**ENVIRONMENTAL SERVICES
CITY OF PORTLAND**

working for clean rivers

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List of Approved Manufactured Stormwater Treatment Technologies

BES maintains the list of approved manufactured stormwater treatment technologies on the BES website. For the most current list, please visit:
<http://www.portlandoregon.gov/bes/swmm/>

Submittal Guidance

Applicability

Manufacturers of stormwater management treatment technologies must apply and follow the submittal guidelines to be considered for general use within the City of Portland. The approval process evaluates the manufactured stormwater management treatment technology for its effectiveness in meeting the pollution reduction requirements of the *Stormwater Management Manual* and Portland City Code 17.38. The City of Portland maintains a list of approved manufactured stormwater treatment technologies for use under the *Stormwater Management Manual* Presumptive Approach.

Manufactured stormwater treatment technologies not on the approved list (such as those that provide flow or volume control) may use the *Stormwater Management Manual* Performance Approach for a specific site development or improvement proposal.

Introduction

The City of Portland's *Stormwater Management Manual* requires post-development stormwater pollution reduction and provides guidance for implementing City regulations. The Bureau of Environmental Services (BES) specifies design criteria, such as pollution reduction storm intensity and volume, and facility performance goals. Manufactured stormwater treatment technologies must satisfy those criteria as stand-alone systems or as part of a treatment train approach.

The Washington State Department of Ecology (DOE) *Technology Assessment Protocol* (TAPE) has become a standard method by which many Northwest municipalities evaluate and approve manufactured stormwater treatment technologies for use in their communities. BES requires that all manufacturers requesting approval for general use of manufactured stormwater treatment technologies in the City of Portland must have current approval for general use level designation (GULD) by Washington State DOE under TAPE. 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.

Performance Criteria

Applicants should ensure that the performance goal(s) achieved by the manufactured stormwater treatment technology under TAPE GULD certification meet 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. Because the influent concentration of TSS can greatly influence the ability of a manufactured stormwater treatment technology to remove 70 percent of TSS, the performance tests must specify the influent limits used. The manufactured stormwater treatment technology must achieve an effluent goal of no more than 20 mg/L TSS for low influent concentrations (< 70 mg/l). Influent concentrations of greater than 70 mg/L must remove 70% of TSS.

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

Applicants¹ seeking BES approval of manufactured stormwater treatment technologies must submit an application form, all required documentation, and an application fee. The review process consists of a public presentation about the manufactured stormwater treatment technology, a technical interview, third-party review of the documentation.

¹ Applicants include manufacturers, product vendors, consultants, or any other person promoting the manufactured stormwater treatment technology.

Manufactured stormwater treatment technologies on the 2005 list of BES-approved devices that have achieved TAPE GULD certification will not have to reapply for BES approval (date of approval will be date of SWMM adoption). Any manufactured stormwater treatment technology that does not have TAPE GULD certification must apply under these submission requirements regardless of prior BES approval.

All documents must be in the following formats: two hard copies and one set of digital files. The applicant must deliver all required hard copy submittals to the following address:

City of Portland, BES
1120 SW 5th Ave. Room 1000
Portland, OR 97204
Attention: Engineering Services Standards and Materials Program Manager

All data and documentation necessary to verify performance must be included in the application. The following pages outline the minimum requirements that must be submitted at the time of application in order for the application to be considered complete. BES may request additional documentation and 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 also convene a Review Committee that will attend the public presentation and the technical interview, review the application and the third-party review evaluation, 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 for general use. BES will accept for review only manufactured stormwater treatment technologies that have achieved TAPE GULD certification.

Application Form

Applicants must submit a Manufactured Stormwater Treatment Technology Application Form, found online with the *Stormwater Management Manual* on the BES website. 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 Application Fee for the current fiscal year is listed with the Sewer and Drainage Rates and Charges, available on the BES website. The fee will cover costs of the third-party evaluation as well as City staff time to process, coordinate, and review the application.

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 documentation used to achieve TAPE GULD certification from Washington State DOE.

Applicant must submit documents in both hard copy and digital formats. This includes:

- Technology Evaluation Report (TER), including Appendices.
- Third-party review memorandums, if any third-party was utilized.
- Quality Assurance Project Plan
- Copies of the General Use Level Designation

All information provided to the City shall 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.

BES Requirements

No additional testing or performance goals beyond the scope of TAPE requirements are necessary.

BES Evaluation Process

After BES deems an application complete, the presentation and interview should be scheduled within 30 business days. Following the presentation, the third-party review should be complete within 90 business days. 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.

Applicant Presentation and 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

For all submittals, 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 requirements. The third-party review will evaluate water quality data and storm event intensity.

Appeals Process

If the applicant does not agree with the outcome or conditions of the evaluation process, the applicant may appeal. The appeal process is described in Appendix D.7 of the *Stormwater Management Manual*.

Approval Renewal and Changes to Technologies

Manufactured stormwater treatment technologies will be approved for 36 months from the date of approval. If no changes to the manufactured stormwater treatment technology have occurred (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.

References and Resources

Washington State Department of Ecology, Technology Assessment Protocol (TAPE):

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

City of Portland Environmental Services, Sewer and Drainage Rates and Charges:

<http://www.portlandoregon.gov/bes/55059>

City of Portland Environmental Services, Stormwater Management Manual:

www.portlandoregon.gov/bes/swmm