B65-12

# Installation code for decentralized wastewater systems

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# *B65-12*
# ***Installation code for decentralized wastewater systems***




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*In addition to the members of the Committee, valuable contributions to the development of this Standard were made by Abraham Murra and Dwayne Torrey.*

# Preface

This is the first edition of CSA B65, *Installation code for decentralized wastewater systems*.

The development of this Code was made possible, in part, by the financial support of Advanced Drainage Systems Inc., Alberta Municipal Affairs, Alberta Onsite Wastewater Management Association, Alberta Wilbert Sales Ltd., Canada Mortgage and Housing Corporation, Health Canada, Infiltrator Systems Inc., Manitoba Conservation, Ontario Onsite Wastewater Association, Pinnacle Environmental Technologies Inc., Premier Tech Aqua, and Waterloo Biofilter Systems Inc. Such support does not indicate endorsement of the contents of this Code.

This Standard was prepared by Technical Committee on Decentralized Wastewater Systems, under the jurisdiction of the Strategic Steering Committee on Water Management Products, Materials, and Systems, and has been formally approval by the Technical Committee.

*March 2012*

**Notes:**

**(1)** *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*

**(2)** *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*

**(3)** *This publication was developed by consensus, which is defined by* CSA Policy governing standardization — Code of good practice for standardization *as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this publication.*

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*(b) relevant clause, table, and/or figure number;*
*(c) wording of the proposed change; and*
*(d) rationale for the change.*

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# *Installation code for decentralized wastewater systems*

## 0 Introduction

### 0.1 General

This Code was developed in response to a request from provincial/territorial regulators, who saw the need for a national installation code for decentralized wastewater systems that would

(a) provide a national basis for training and qualification of installers, inspectors, operators, and users;
(b) enhance the protection of public health and safety;
(c) enhance the protection of the environment;
(d) create potential savings in resources by the sharing of knowledge among provincial/territorial and federal ministries;
(e) standardize practices and requirements across Canada to support the inter-provincial/territorial movement of labour, goods, and services;
(f) consider the economic impact of compliance; and
(g) provide a framework for consistent compliance throughout Canada.

Experts from across North America had the opportunity to participate in the development of this Code, and provinces, territories, and other stakeholders were able to provide their input on the technical content.

### 0.2 Expectations

It is expected that this Code will

(a) be adopted by provinces and territories across Canada and by federal ministries;
(b) increase opportunities for sharing technical resources and training materials and therefore make closing the gaps between provincial, territorial, and federal regulations much easier and faster;
(c) encourage research and innovation on a national scale and allow the results of research to have greater and more widespread application and benefit; and
(d) be reviewed and updated to reflect the current state of knowledge in the decentralized wastewater industry.

### 0.3 Intent

The intent of this Code is to specify requirements for the design and installation of decentralized wastewater systems and to provide guidance on recommended practices for the operation and maintenance of the systems.

### 0.4 Major goals

The major goals of this Code are to

(a) specify requirements that result in decentralized wastewater systems that are sustainable long-term solutions for wastewater management;
(b) enhance the protection of surface water and groundwater;
(c) enhance the protection of the environment; and
(d) enhance the protection of public health and safety.

## 0.5 Additional goals

In addition to the goals listed in Clause 0.4, this Code

(a) facilitates the operation and maintenance of decentralized wastewater systems by specifying requirements for their design;
(b) recognizes various climates, soils, and geographic factors across Canada;
(c) encourages development and allows for new technologies and facilitates their acceptance by authorities having jurisdiction; and
(d) facilitates regulation by jurisdictions.

## 0.6 Innovation

It is not the intent of this Code to stifle innovation. If a system is not covered in this Code non-coverage should not be construed as precluding its use.

## 0.7 Approvals

The authorities having jurisdiction approve designs of sewerage works not covered in this Code. Legislation takes precedence over this Code.

# 1 Scope

## 1.1

### 1.1.1

This Code covers decentralized wastewater systems that use soil absorption systems for infiltration, dispersal, and final treatment of wastewater and serve residential, institutional, and commercial establishments.

**Note:** *In this Code, the term "system" refers to a decentralized wastewater system.*

### 1.1.2

This Code also covers sewage holding tanks.

**Note:** *Holding tanks are not a self-sustaining method of on-site wastewater management because they rely on the availability of an adequate off-site wastewater treatment facility, which generally creates a load on municipal infrastructure. Owners of holding tanks also incur ongoing costs for the removal and hauling of wastewater to approved treatment facilities. The use of a holding tank system as the wastewater management solution for a property is subject to the requirements of the local authority having jurisdiction.*

## 1.2

### 1.2.1

This Code does not cover

(a) lagoons or surface discharge of effluent; and
(b) wastewater generated by industrial processes.

### 1.2.2

This Code does not specify requirements for, or provide direction on, the selection of the type of system and required effluent quality that might be needed to manage cumulative impacts

(a) on a multi-lot, subdivision, or watershed scale caused by multiple decentralized wastewater systems; or
(b) where systems are located in a sensitive receiving environment.

**Note:** *The determination of treatment objectives, effluent quality, and system types required for a multi-lot subdivision should consider cumulative impact or loading limits. Loading limits required to prevent unacceptable impacts on groundwater or surface water, caused by the total wastewater generated from multi-lot subdivisions or where needed to protect a sensitive receiving environment, should be considered in the selection and use of decentralized wastewater treatment systems.*