



Manual for On-Site Sewage Management Systems

June 2019

Environmental Health Section

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INTRODUCTION

A major factor influencing the health of individuals where public or community sewerage is not available is the proper treatment and disposal of human wastes and other sewage, including industrial and processing waste. Many diseases, such as dysentery, infectious hepatitis, typhoid and paratyphoid, and various types of gastrointestinal problems are transmitted from one person to another through the fecal contamination of food and water, largely due to the improper disposal of human wastes. Chemical contaminants affecting individuals through individual drinking water supplies have been attributed to groundwater pollution caused by improper subsurface disposal of on-site sewage. Because of such problems, every effort shall be made to prevent the existence of these and other potential health hazards.

Safe disposal of all wastes, human, domestic and industrial, is necessary to protect the health of the individual family and the community and to prevent the occurrence of nuisances. To accomplish satisfactory results, all such wastes must be disposed of in such a manner that:

1. They will not contaminate any approved drinking water supply;
2. They will not give rise to a public health hazard by being accessible to insects, rodents, or other possible carriers of disease that may come into contact with food or drinking water;
3. They will not give rise to a public health hazard by being accessible to children;
4. They will not violate laws or regulations governing water pollution or sewage disposal;
5. They will not pollute or contaminate the waters of any bathing beach, shellfish breeding ground, stream or lake used for public or domestic water supply, or for recreational purposes; and
6. They will not give rise to a nuisance due to odors or unsightly appearance.

Where public or community sewage disposal systems are not accessible, these criteria can be met by the discharge of sewage to an adequate on-site sewage management system. Such a system can be expected to function satisfactorily if properly designed and installed where soil and site conditions are favorable and properly maintained. Experience through the years has shown that adequate supervision, inspection, and maintenance are required to insure compliance in this respect.

It is the intention of this Manual to serve as:

1. A technical reference to enhance public health protection;
2. A good source of information for professionals and individuals interested in the on-site sewage management program including public health professionals, engineers, scientists, environmentalists, septic system installers, septic tank pumpers, soil consultants, home builders, land developers, and the general public.

Format of the Manual

This Manual is designed to be kept in a loose-leaf three hole binder so that updates, revisions and technical information can be added easily.

Content of the Manual

This Manual is divided into 16 sections: Section A provides the Rules of the Department of Public Health for On-site Sewage Management Systems, Chapter 511-3-1." Section B covers the general soil provisions for on-site sewage management systems. Chapter C discusses the role of soil information and use of soils in sewage treatment and disposal. Sections D through F cover the technical design standards for on-site sewage management systems. Section G describes the concept and process for obtaining permits for experimental systems. Section H discusses site modifications. Section I describes procedures for septage removal and disposal. Section J provides the sewage flow schedule. Section K details field inspections needed before on-site sewage management systems are put into operation. Section L covers operation and maintenance for the systems. Section M discusses lot sizing for development of individual properties, subdivisions, and mobile home parks. Section N provides procedures for certification and de-certification of septic tank contractors, inspection personnel, pumpers, soil classifiers, and maintenance personnel. Section O provides the appendices while Section P provides a list of references.

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June 2019 Acknowledgements

The June 2019 updates to the Manual were made based on actions taken by the DPH Technical Review Committee, Certification Review Committee, and the Department’s General Counsel.

The updates included reviewing the Manual for consistency of font and formatting, corrections to typos and grammar, and a complete revision of all Tables, Figures, and Forms. The update also included newly adopted language for performing measured saturated hydraulic conductivity tests and a revised plastic riser standard.

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