

## Title 03, Chapter 41

### Residential Onsite Wastewater Treatment and Disposal System Maintenance Program

#### Sections

010 Purpose.

020 Objectives.

030 Service Contract.

040 OWTDS Services.

050 Responsibilities of Property Owner.

060 Service Fees.

070 Penalties and Fines.

080 Definitions.

#### 03 CBJAC 41.010 Purpose.

This regulation is enacted to provide standards for the department to provide an inspection and maintenance program for onsite wastewater treatment and disposal systems (OWTDS) of major residential subdivisions for the purpose of protecting surface water and ground water from contamination by human sewage and waterborne household wastes; the protection of the environment and the public's health and safety; and the elimination and prevention of the development of public nuisances, pursuant to the authority granted under Assembly Ordinance 2005-17(b).

(Eff. 9-13-2005)

#### 03 CBJAC 41.020 Objectives.

The principal objectives of these regulations are as follows:

- (a) To monitor and ensure the appropriate use, reliable operation, regular maintenance, and repair and replacement of all OWTDS in major residential subdivisions developed after July 1, 2005, and not served by a centralized municipal wastewater treatment system;
- (b) Prevent and control water-borne disease, groundwater and surface water degradation, and public nuisance conditions through technical assistance, education, field inspections, monitoring, maintenance, enforcement and compliance;
- (c) Establish minimum standards for OWTDS operation, maintenance, repair, and reconstruction to prevent contamination, and if contamination is discovered, identify and control its consequences, abate its source, and provide for migration.

(Eff. 9-13-2005)

#### 03 CBJAC 41.030 Service Contract.

- (a) Except as provided in (c), all property owners who install or cause to be installed an OWTDS on their property within a major residential subdivision developed after July 1, 2005, which is not served by a centralized municipal wastewater treatment system, are required to enter into a service contract agreement with the Department, or with a service contractor approved by the Department and the manufacturer of the property owner's treatment system, for system inspection, monitoring, and sludge pumping services.
- (b) New property owners of an existing home with an OWTDS are required to have a service contract for continued system inspection, monitoring, and sludge pumping services in place and effective within 60 calendar days of transfer of property ownership.
- (c) Properties outside Service Area 9 (Roaded Service Area) are exempt.

#### 03 CBJAC 41.040 OWTDS Services.

The service contract shall include provisions for the following OWTDS services:

- (a) Annual inspection and completion of an OWTDS inspection and deficiency report, a copy of which will be provided to the property owner within 60 days of the inspection. The Department or contractor will observe and report on the condition/operation of the following components of the OWTDS:
  - (1) Septic tanks and treatment plants including access ports, aeration system operation, control system operation, and filtration media condition, as applicable and observable;
  - (2) Disinfection systems, such as ultra-violet lights or chlorine system;
  - (3) Effluent filters, pumps, and inspection ports;

- (4) Soil absorption systems, and marine outfalls;
  - (5) Presence of ground water and french or curtain drains around leach fields;
  - (6) Other OWTDS appurtenance as applicable to the specific system.
- (b) Notification of the property owner and the Department in writing of any system failures, corrections or repairs needed. The OWTDS inspection and deficiency report shall include, but not be limited to:
- (1) The address of the site.
  - (2) The parcel identification number.
  - (3) The name of the property owner.
  - (4) Legal description of property.
  - (5) The location of the OWTDS on the property.
  - (6) A description of the current operational and functional status of the OWTDS.
  - (7) Identification of any necessary repairs or replacement of all or portions of the OWTDS.
  - (8) The results of any special testing required by the Department.
  - (9) Other relevant or unusual observations or system failures related to the OWTDS.
  - (10) Recommendations to extend the life of the OWTDS and to prevent the premature failure of the OWTDS.
  - (11) Educational material(s) about OWTDS proper use and maintenance that have been approved by the Department.
  - (12) Completed forms approved by the Department.
- (c) Sludge pumping and tank inspection. Sludge shall be periodically pumped from the tank to maintain proper functioning of the system. Tank inspections shall include sludge and scum levels, determination of the condition of baffles, where feasible, and determination of the integrity of the tank, walls, lids and other structural components, where feasible.
- (d) Use of qualified contractors to make required repairs to their OWTDS systems. In the event a qualified contractor is not available to do the work within the required time, the property owner may request the Department to arrange for the required repairs on a time and material cost basis. The property owner will agree to pay for Department acquired repair services by signing a work order prior to repairs and will be responsible for payment for all such service.
- (e) Educational materials for property owners that identify best practices for use and operation of OWTDS to optimize system performance and promote longevity.
- (f) The Department shall maintain copies of all current service contract agreements, approved OWTDS plans, and OWTDS inspection and deficiency reports and repair actions. These documents shall be treated as public records and maintained as part of the property's building permit files.

### **03 CBJAC 41.050 Responsibilities of the Property Owner.**

Ownership of the OWTDS shall remain vested with the property owner, who shall at all times be responsible for the following:

- (a) Operating the OWTDS in a responsible manner to ensure all OWTDS components are operating to effectively treat waste, and in accordance with all operating manuals and instructions.
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# Appendix B

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- (b) Paying all costs associated with operating, maintaining, and repairing all components of the OWTDS. The property owner shall be responsible for contacting local plumbing service providers in the event of system backup or failure. The property owner shall contract with qualified technicians for repair and routine maintenance of mechanical, aerobic, and control systems in order to maintain warranties.
- (c) Maintaining a continuous electrical supply to those OWTDS system components that require electricity to function.
- (d) Providing the CBJ and/or service contractor clear unobstructed physical access to the OWTDS.
  - (1) Access shall be for the purpose of performing the services stated in the contract.
  - (2) The access route shall be of sufficient width and grade to accommodate a pump truck to service the OWTDS.
  - (3) All access to the OWTDS shall be at no charge to the CBJ or service contractor.
  - (4) Access shall be granted to the CBJ, and, if applicable, service contractor, to correct imminent threats to public health if the property owner fails to comply with required OWTDS repairs.
- (e) Providing unobstructed service access to all septic or treatment plant lids and access ports. Access ports to septic or treatment tanks shall not be buried.
- (f) Providing to the CBJ a copy of the OWTDS design plans, any special maintenance schedules or manufacturers' plant data, and the ADEC final approval to operate the wastewater system for the building permit file.
- (g) Making the repairs and corrections noted in OWTDS Inspection and Deficiency Reports. The property owner shall have 30 calendar days within which to submit a proposed corrective action plan and contract for services in order to bring the affected system into compliance as identified in the report. All corrective actions shall be completed within 120 calendar days of Department approval of the corrective action plan. The property owner shall contact the Department for re-inspection to verify system repairs and shall provide documentation of the completed system repairs.
- (h) Obtaining plan approval by both the Department and the ADEC, as required, for any reconstruction of the OWTDS. The property owner shall provide such plan approvals to the Department along with the corrective action plans. The property owner shall comply with ADEC permit requirements per 18 AAC 72.200.
- (i) Notifying the Department within 30 days of any sale or transfer of the property and/or change to the service contract.

### **03 CBJAC 41.060 Service Fees.**

- (a) The monthly fee for OWTDS inspection and maintenance services if provided by the Department under contract shall, at a minimum, be equal to the flat rate residential fee paid by property owners connected to the centralized wastewater systems. Monthly service fees shall be set to collect actual cost to the city for providing the service.
- (b) The CBJ shall evaluate and adjust the monthly fee, as needed, to meet the specific maintenance and inspection costs incurred by the CBJ in performing the contract services. These evaluations and adjustments in the fee will occur once every two years, coinciding with rate adjustments for the Wastewater Utility customers connected to the centralized wastewater systems.
- (c) Property owners who contract directly with a service contractor for the provision of OWTDS inspection and maintenance services as provided in 03 CBJAC.41.030, are not subject to the service fees provided for in this section.
- (d) On or before December 31, 2010, property owners previously under contract with the Public Works Department for OWTDS services who have contracted with a service contractor, may request credit for unexpended service fees. All requests for credit must be received by the close of business December 31, 2010.

### **03 CBJAC 41.070 Penalties and Fines.**

- (a) A property owner who fails to make the required repairs or fails to submit an acceptable action plan within the required timeframe shall be subject to a non-compliance fine and enforcement action. A non-compliance fine of \$100.00 shall be charged to the property owner's utility bill at 30 calendar days for failure to file a corrective action plan with the Department, and/or at 120 calendar days for failure to make the required repairs. The property owner will be sent a letter giving notice that the required system repairs must be made within an additional 30 calendar days from the end of the 120 calendar day repair period.

- (b) A property owner who fails to make the required OWTDS repairs within 150 calendar days of approval of the corrective action plan shall be fined an additional \$200.00 for non-compliance and shall be sent written notice of water service shutoff within ten calendar days of receipt of notice if repairs are not made.
- (c) Any level of enforcement may be waived by the Department director, or their designee, if the property owner shows reasonable effort to comply with the OWTDS repair requirements. The Department director, or designee, shall have the authority to negotiate a compliance schedule with the property owner for correcting system deficiencies, and to waive the non-compliance fines as deemed appropriate.
- (d) If the Department director, or designee, determines that an OWTDS failure has occurred that endangers the public health and constitutes an emergency, the Department may take such steps as are necessary to resolve the problem, and to bill the property owner for the full costs of resolving the problem.

### 03 CBJAC 41.080 Definitions.

**Access** means the property owner shall provide access to the CBJ, or service contractor, to all parts of the system necessary for adequate inspection, sludge pumping, and emergency repairs.

**Aeration** means the mechanical application of oxygen to the wastewater to support microorganisms which synthesize organics.

**ADEC** means the Alaska Department of Environmental Conservation.

**BOD** means biochemical oxygen demand; the amount, in milligrams per liter, of oxygen used in the biochemical oxidation of organic matter in five days at 20 degrees C. BOD is used in measuring the waste loadings to a treatment system and in evaluating the BOD-removal efficiency of such systems.

**CBJ** means the City and Borough of Juneau.

**Customer** means the property owner.

**Department** means the City and Borough of Juneau Engineering Department.

**Disinfect** means to treat by means of chemical, physical, or other process, such as chlorination, ozonation, application of ultraviolet light, or sterilization designed to eliminate pathogenic organisms, and produce an effluent with the following characteristics:

- (A) An arithmetic mean of the values for a minimum of five effluent samples collected in 30 consecutive days that does not exceed 200 fecal coliform per 100 milliliter.
- (B) An arithmetic mean of the values for effluent samples collected in seven consecutive days that does not exceed 400 fecal coliform in 100 milliliters.

**Effluent** means the treated wastewater which is released into the environment (groundwater, rivers, or ocean).

**Failure** is defined to include:

- (A) The backup of sewage into a structure;
- (B) Discharge of effluent onto the ground surface;
- (C) Excessive sewer odors;
- (D) The connection of an OWTDS to a storm drain;
- (E) Liquid level in the septic tank or treatment plant above the outlet invert;
- (F) Structural failure of the septic tank or treatment plant;

# Appendix B

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- (G) Discharge of untreated or inadequately treated sewage onto the ground or into any stream or water body;
- (H) Improper operation of mechanical and/or electrical system components;
- (I) An operating liquid level in a disposal field above the outlet holes in the pipe of such field;
- (J) Water samples not meeting the Alaska Water Quality Standards criteria for surface drainages, and/or the Alaska Drinking Water Standards criteria for adjacent wells;
- (K) Substantial nonconformance with water well construction requirements as defined by ADEC;
- (L) Substantial nonconformance with water well isolation from contamination source requirements as defined by ADEC.

**Fecal Coliform Bacteria** means those bacteria that can ferment lactose at 44.5° C to produce gas in a multiple tube procedure; "fecal coliform bacteria" also means all bacterial that produce blue colonies with 24 +/- hours of incubation at 44.5 (+/- 0.2°) C in an M-FC broth medium.

**Major residential subdivision** means subdivision of residentially zoned lands consisting of four or more newly created lots.

**OWTDS** means onsite wastewater treatment and disposal system, approved for installation by ADEC and inspected and approved for operation by the CBJ.

**Package treatment plant** means an alternate onsite wastewater treatment system that is a manufactured modular system for domestic wastewater that typically includes both primary and secondary treatment, and serves less than 25 persons; "package treatment plant" does not include septic or holding tanks.

**Property owner/user** means any person, or persons, who have legal title to the subject premises and/or property.

**Septic tank** means a watertight, covered receptacle designed and built to

- (A) Receives domestic wastewater;
- (B) Separate floating solids and settling suspended solids from the liquid;
- (C) Anaerobically digest organic matter;
- (D) Store digested solids through a period of detention; and
- (E) Allow clarified liquids to discharge for final disposal.

**Service contractor** means a contractor approved by the Department and by the treatment system manufacturer to maintain the OWTDS.

**Sludge** means a solid, semisolid, or liquid waste that contains at least five percent solids by weight and that is generated in a wastewater treatment plant or septic tank.

**Soil absorption system** means a surface or subsurface system using soil for the treatment and disposal of effluent from a domestic wastewater treatment works; "soil absorption system" includes drain fields, leach fields, seepage beds, or seepage pits, but does not include a cesspool.

**TSS** means total suspended solids and refers to that portion of the total solids which are retained by a filter. Total solids refer to matter suspended or dissolved in wastewater and includes TSS and total dissolved solids (that portion that passes through the filter).

**Wastewater utility** means the CBJ Wastewater Utility administered through the Department of Public Works.