

**The front matter and table of contents is replaced to read:**

**Chapter 72. Wastewater Treatment and Disposal**

Article 1. General Standards, Requirements, and Limitations (18 AAC 72.005 – 18 AAC 72.110)

Article 2. Wastewater System Plan Review (18 AAC 72.200 – 18 AAC 72.290)

Article 3. Repealed

Article 4. Certified Installer Program (18 AAC 72.400 – 18 AAC 72.440)

Article 5. Conventional Wastewater Systems (18 AAC 72.501 – 18 AAC 72.560)

Article 6. Alternative Wastewater Systems (18 AAC 72.601 – 18 AAC 72.660)

Article 7. General Provisions (18 AAC 72.900 – 18 AAC 72.990)

**Editor's Note:** The regulations in 18 AAC 72.005 – 18 AAC 72.660 constitute a major reorganization and revision of material formerly set out in 18 AAC 72.005 – 18 AAC 72.610.

The regulations in 18 AAC 72.005 – 18 AAC 72.280 and 18 AAC 72.400 – 18 AAC 72.440, effective April 1, 1999 and distributed in Register 149, constituted a comprehensive reorganization and revision of material formerly set out in 18 AAC 72.010 – 18 AAC 72.285. The history line at the end of each section does not reflect the history of the replaced provisions before April 1, 1999.

Additionally, the regulations in 18 AAC 72 effective June 30, 1990 and distributed in Register 114, constituted a comprehensive reorganization and revision of the material in this chapter. The history lines at the end of 18 AAC 72.299 – 18 AAC 72.385 and 18 AAC 72.500 – 18 AAC 72.990 do not reflect the history of replaced provisions, if any, before June 30, 1990.

Earlier versions of 18 AAC 72 may be reviewed at the Office of the Lieutenant Governor, and may be found at the following registers: Register 47, 8/10/73; Register 61, 2/3/77; Register 65, 3/4/78; Register 69, 2/2/79; Register 84, 12/30/83; Register 93, 3/30/85; Register 102,

6/18/87; Register 114, 6/30/90; Register 125, 2/19/93; Register 132, 11/10/94; Register 142, 4/18/97, Register 147, 7/10/98; Register 149, 4/1/99; Register 157, 3/25/2001; Register 161, 1/17/2002; Register 179, 7/29/2006; Register 192, 12/23/2009; Register 218, 5/12/2016; Register 220, 10/22/2016.

**Article 1 is repealed in its entirety and readopted to read:**

**Article 1. General Standards, Requirements, and Limitations**

**Section**

- 005. Purpose and applicability
- 007. Technical review committee
- 010. Permit and plan approval required
- 015. Restrictions on use and modification
- 020. (Repealed)
- 025. (Repealed)
- 030. Pit privies
- 035. (Repealed)
- 040. (Repealed)
- 050. Minimum treatment
- 055. Septage, sewage, and sludge disposal
- 060. Waiver
- 065. Certified operator requirement
- 070. Reference materials
- 080. Validity of approvals
- 090. System failures and spills

100. Private water systems

110. Delegation of authority

**18 AAC 72.005. Purpose and applicability.** (a) The purpose of this chapter is to protect human health, the environment, and water quality by establishing

- (1) standards for the design, construction, performance, operation, and maintenance of wastewater treatment works and disposal systems; and
- (2) minimum separation distance requirements and construction standards for private water systems.

(b) The requirements of this chapter apply to any person that

- (1) owns or operates a wastewater collection, storage, treatment, or disposal system operated in the state; or
- (2) engages in the installation, construction, or modification of wastewater collection, storage, treatment, or disposal systems or private water systems. (Eff. 4/1/99, Register 149; am 5/12/2016, Register 218; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100

**18 AAC 72.007. Technical review committee.** The department may consult with a technical review committee, which may include governmental agencies, non-governmental organizations, industry professionals, and communities, regarding pilot projects, revisions to technical specifications and construction standards, or innovative application of wastewater treatment technology. The purpose of the technical review committee is to obtain recommendations and expertise on the installation, use, and management of wastewater systems.

(Eff. 4/1/99, Register 149; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.110  
AS 46.03.020 AS 46.03.100

**18 AAC 72.010. Permit and plan approval required.** (a) Except for systems exempted from plan review under 18 AAC 72.511 or 18 AAC 72.611, a person who disposes of wastewater in this state must have a plan approved by the department and a permit issued by the department if the department requires a permit under 18 AAC 83 for the disposal.

(b) The department may issue a plan approval in lieu of a permit under this chapter if the department determines that

- (1) the system meets the requirements of AS 46.03 and this chapter; and
- (2) the system is protective of public health, public and private water systems, and the environment.

(c) The department may consider a permit issued under 18 AAC 83 or 18 AAC 15 as the plan approval required under 18 AAC 72.200 to modify a previously approved wastewater treatment works and disposal system or to serve as the approval to operate required under 18 AAC 72.240.

(d) The applicant for or recipient of a permit shall pay any fee for the permit as required by 18 AAC 72.956, 18 AAC 72.957, or 18 AAC 72.959. (Eff. 4/1/99, Register 149; am 7/29/2006, Register 179; am 5/12/2016, Register 218; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 44.46.025 AS 46.03.050 AS 46.03.120

**Editor's Note:** Permit requirements previously included at 18 AAC 72.215 and

18 AAC 72.500 are now addressed in this section.

**18 AAC 72.015. Restrictions on use and modification.** (a) A person may not install, modify, or use the following systems for wastewater treatment or disposal

- (1) a cesspool;
- (2) a log crib; or
- (3) any system utilizing wood components in contact with wastewater.

(b) Any modified existing system must meet the requirements of this chapter. (Eff. 4/1/99, Register 149; am 5/12/2016, Register 218; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.100  
AS 46.03.020 AS 46.03.070

**18 AAC 72.020. Separation distances.** Repealed. (Eff. 4/1/99, Register 149; am 3/25/2001, Register 157; am 5/12/2016, Register 218; repealed XX/XX/XXXX, Register XXX)

**Editor's Note:** Separation distance requirements have been relocated to sections associated with each respective system type at 18 AAC 72.030, 18 AAC 72.100, 18 AAC 72.245, 18 AAC 72.520, and 18 AAC 72.620.

**18 AAC 72.025. Holding Tanks.** Repealed. (Eff. 4/1/99, Register 149; repealed XX/XX/XXXX, Register XXX)

**Editor's Note:** Holding tanks are addressed at 18 AAC 72.601 – 18 AAC 72.660 as part of alternative wastewater systems.

**18 AAC 72.030. Pit privies.** (a) A person may install and use a pit privy without the

approval of the department if the pit privy

(1) is 100 feet measured horizontally from the mean annual high water level of a lake, river, stream, spring, or slough, or the mean higher high water level of coastal waters;

(2) meets the minimum separation distance requirements in 18 AAC 72.100 for private water systems;

(3) meets the minimum separation distance requirements in 18 AAC 80 for a public water system;

(4) is located in an area not prone to flooding or in wetlands;

(5) is constructed such that the minimum vertical separation distance between the lowest portion of the pit privy to the annual high water table is four feet; and

(6) is protected from precipitation and animal or insect contact by a protective shelter over the privy.

(b) Only human urine and excrement that is not waterborne may be disposed of in a pit privy.

(c) A pit privy must be decommissioned when solids are within two feet of the ground surface or if the pit privy is permanently inactive or abandoned. The pit privy must be decommissioned using a method that the department has publicly identified as an approved best management practice or an alternate method that has been presented to and approved by the department. (Eff. 4/1/99, Register 149; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.100  
AS 46.03.020 AS 46.03.070

**Editor's note:** Methods publicly identified by the department as approved best

management practices are available at a department office or on the department's website.

**18 AAC 72.035. Conventional onsite systems.** Repealed. (Eff. 4/1/99, Register 149; repealed XX/XX/XXXX, Register XXX)

**Editor's Note:** Conventional wastewater systems are addressed at 18 AAC 72.501 – 18 AAC 72.560.

**18 AAC 72.040. Discharge to sewers.** Repealed. (Eff. 4/1/99, Register 149; repealed XX/XX/XXXX, Register XXX)

**Editor's Note:** This subject matter is relocated to 18 AAC 72.200 - 18 AAC 72.290.

**18 AAC 72.050. Minimum Treatment.** (a) A person may be authorized to discharge wastewater into or onto water or land, if the discharge

(1) to surface land has received secondary treatment and, if the discharge is a potential health hazard, has been disinfected;

(2) to subsurface land has received primary treatment and is discharged to a soil absorption system; the department will require additional treatment if the discharge is a potential health hazard;

(3) to surface waters has received secondary treatment and has been disinfected.

(b) A person may not discharge domestic wastewater with less than primary treatment.

(c) The department may allow or require treatment different from the minimum set out in this section as necessary to protect public health, public and private water systems, or the environment. In deciding to evaluate alternative minimum treatment requirements under this

section or a waiver of minimum treatment under 18 AAC 72.060, the department will consider other permit or plan approval requirements, and the receiving environment.

(d) The department will require treatment of nondomestic wastewater appropriate for the type of wastewater and the proposed disposal method as necessary to protect public health, public and private water systems, and the environment. In deciding an appropriate level of treatment under this section, the department will consider the type of wastewater, the proposed disposal method, the sensitivity of the receiving environment, and any other permit requirements or plan approval conditions. (Eff. 4/1/99, Register 149, am 7/29/2006, Register 179, am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.100  
AS 46.03.020 AS 46.03.070

**Editor's note:** The discharge of domestic wastewater from marine vessels is regulated by federal standards of performance and operation of marine sanitation devices under 33 U.S.C. 1322 (Clean Water Act, sec. 312).

**18 AAC 72.055. Septage, sewage, and sludge disposal.** A person may dispose of septage, sewage, or sludge from a collection system, septic tank, holding tank, pit privy, vault privy, honey bucket, or wastewater treatment works only at a site or facility holding an applicable department permit or approval for disposal of that material. The department will require the septage, sewage, or sludge be treated before disposal if necessary to protect public health or the environment. (Eff. 4/1/99, Register 149; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.710  
AS 46.03.020 AS 46.03.100



**18 AAC 72.060. Waiver.** (a) If the department agrees that a waiver of a provision of 18 AAC 72.010 – 18 AAC 72.660 will not violate a requirement of 18 AAC 83 and will be protective of public health, public and private water systems, and the environment, then the department may waive or modify that provision.

(b) A request for a waiver must include the fee required under 18 AAC 72.955 or 18 AAC 72.959 and a report specifying each waiver that is sought. Except as otherwise provided in 18 AAC 72.540, the report required under this subsection must

- (1) be sealed by a registered engineer;
- (2) justify and explain how the waiver does not threaten public health, public and private water systems, and the environment;
- (3) describe soil classifications, groundwater conditions, surface topography, geology, and other environmental conditions that would assist the department in reviewing the waiver;
- (4) describe the construction methods and materials that will mitigate adverse impacts on public and private water systems, surface waters, and the environment; and
- (5) for waivers of minimum treatment requirements, describes
  - (A) the wastewater volume, characteristics, frequency, and duration of the discharge; and
  - (B) existing and potential uses of the land or water where the discharge occurs. (Eff. 4/1/99, Register 149; am 1/17/2002, Register 161; am 7/29/2006, Register 179; am XX/XX/XXXX, Register XXX)

<b>Authority:</b>	AS 44.46.020	AS 46.03.050	AS 46.03.100
	AS 44.46.025	AS 46.03.070	AS 46.03.710
	AS 46.03.020	AS 46.03.080	

**18 AAC 72.065. Certified operator requirement.** The owner or operator of a wastewater system that has 100 or more service connections or that is used, or intended for use, by 500 or more people per day shall ensure that the system is operated by a person certified under 18 AAC 74. (Eff. 4/1/99, Register 149; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.710  
AS 44.03.020 AS 46.03.100 AS 46.30.040

**18 AAC 72.070. Reference materials.** (a) The following materials are adopted by reference:

(1) *NSF International Standard/American National Standard NSF/ANSI 40: Residential Wastewater Treatment Systems*, most recent version.

(b) The department will use the requirements and adopted references of the state plumbing code, as developed under AS 18.60.705, in evaluating wastewater systems and associated components not otherwise addressed in this chapter.

(c) The department will use design manuals and technical publications issued by the United States Environmental Protection Agency and other states to evaluate plans submitted for approval and methods used to establish standard sanitary engineering principles and practices.

(d) The department will use standard sanitary engineering principles and industry accepted construction standards or a technical review committee under 18 AAC 72.007 to develop guidance manuals to identify department approved methods for the construction, operation, maintenance, and inspection of private water systems and wastewater collection, storage, treatment, and disposal systems. Technical guidance manuals will be publicly identified as approved best management practices to be followed in lieu of engineered plans submitted for prior department approval. (Eff. 4/1/99, Register 149; am 3/25/2001, Register 157; am 5/12/2016, Register 218, am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.050

**18 AAC 72.080. Validity of approvals.** (a) Final approvals to operate issued under this chapter are valid indefinitely unless otherwise stated in the approval letter or as provided in (b) or (c) of this section.

(b) Plan approvals are invalidated if

(1) the wastewater system is modified without prior approval of the department or authorization with a permit modification; or

(2) the wastewater system is operated in a manner inconsistent with the approval conditions, design, or record documents.

(c) Plan approvals and registrations are valid only for the system components, configuration, construction standards, and locations approved by the department and on file with the department.

(d) Invalidated approvals or registrations may be reinstated upon request in accordance with 18 AAC 72.290, 18 AAC 72.560, or 18 AAC 72.660. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.120

AS 46.03.020

AS 46.03.100

**18 AAC 72.090. System failures and spills.** (a) A wastewater system is considered to be in failure when it ceases to function as originally designed, approved by the department, or results in a discharge that does not meet the requirements of 18 AAC 72.050.

(b) Unless specifically annotated on the design and approved by the department, wastewater disposed to subsurface land must stay below the subsurface. The surfacing of wastewater is considered a failure of the system.

(c) Unless specifically annotated on the design and approved by the department, wastewater disposed to surface land must remain within the property boundary. Wastewater observed creating a nuisance on adjacent properties is considered a failure of the system.

(d) The owner of a wastewater system in failure must

(1) make repairs as soon as practicable to the failing system to prevent a discharge to surface waters, surface land, or subsurface land that does not meet the approved conditions or minimum treatment requirements in 18 AAC 72.050;

(2) contain and clean up all spilled wastewater released and dispose of the spilled wastewater at an approved wastewater facility; and

(3) clearly mark and prevent access to the area until clean up procedures are complete. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.120  
AS 46.03.020 AS 46.03.100

**18 AAC 72.100. Private water systems.** (a) Unless the department has approved a lesser minimum separation distance, a person who installs, modifies, or operates a source of drinking

water associated with a private water system must meet the following minimum separation distances to a potential source of contamination:

(1) at least 100 horizontal feet, measured nearest edge to nearest edge, to any wastewater treatment works, sewer line, sewer line cleanout, manhole, lift station, septic tank, wastewater holding tank, soil absorption system, disposal system, disposal sewer, pit privy, sanitary landfill or other potential source of contamination such as animal byproducts, manure or waste, agricultural waste, sewage solids disposal sites or biosolids storage areas;

(2) at least 25 horizontal feet, measured nearest edge to nearest edge, to any private sewer lines, sewer service lines, and sumps contained within a building;

(3) at least 25 horizontal feet, measured nearest edge to nearest edge, to any land surface discharges or subsurface disposal areas associated with drinking water treatment waste; drinking water treatment wastes include reject water from reverse osmosis units and backwash water from filters and water softeners; and

(4) at least 25 horizontal feet, measured nearest edge to nearest edge, to any heating oil storage tanks and lines; the minimum separation distance to heating oil storage tanks or lines does not apply to

(A) tanks or lines that contain propane or natural gas; or

(B) above-ground storage tanks or drums that, in the aggregate, have a storage capacity of equal to or less than 500 gallons of petroleum products.

(b) Unless the department has approved a lesser separation distance, a person who installs, modifies, or operates a water holding tank associated with a private water system or a private water line and must meet the following minimum separation distances to potential sources of contamination:

(1) at least 10 horizontal feet, measured nearest edge to nearest edge, to any heating oil storage tanks and lines; the minimum separation distance for heating oil storage tanks does not apply to

(A) lines or tanks that contain propane or natural gas; or

(B) above-ground storage tanks or drums that, in the aggregate, have a storage capacity of equal to or less than 500 gallons of petroleum products.

(2) at least five horizontal feet, measured nearest edge to nearest edge, to septic tanks, treatment tanks, wastewater holding tanks, lift stations, community sewer lines, land surface discharges, and subsurface disposal areas;

(3) at least 12 horizontal inches, measured nearest edge to nearest edge, to a private sewer line;

(4) at locations where a private water line must cross a private or community sewer line,

(A) the sewer line must be installed at least 12 inches below the private water line; and

(B) the sewer line joints must be at least nine feet from the private water line joints.

(c) A person who drills, installs, modifies, or operates a well serving a private water system must use a method

(1) equivalent to well protection or source water protection contained in 18 AAC 80 for public water systems; or

(2) publicly identified by the department as an approved best management practice for non-public water systems.

(d) A person who owns or is responsible for a well shall maintain it in accordance with 18 AAC 80.015(d) or decommission it in accordance with 18 AAC 80.015(e). (Eff.

XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.710  
AS 46.03.020 AS 46.03.365

**Editor's note:** Separation distance requirements for drinking water systems were previously addressed in 18 AAC 72.020. The department may approve lesser separation distances for private water systems under 18 AAC 72.060, 18 AAC 72.540, 18 AAC 72.640, or as part of an approval for a wastewater system under 18 AAC 72.200 – 18 AAC 72.290. Separation distance requirements for public water systems are addressed in 18 AAC 80 and all waivers involving a public water system will be reviewed under that chapter.

In addition to the requirements in this section, requirements of the Department of Natural Resources at 11 AAC 93 or the state plumbing code might apply.

Methods publicly identified by the department as approved best management practices for non-public water wells and well decommissioning are available at a department office or on the department's website.

**18 AAC 72.110. Delegation of authority.** (a) Except as provided in (i) of this section, the department will, in its discretion, delegate all or partial authority to implement 18 AAC 72.005 – 18 AAC 72.660 to a municipality, city, borough, or other local government organization (collectively referred to as “entity”), upon approval of an application for delegation.

(b) The entity must submit an application for delegation to the director. The application must include the following information:

(1) a copy of the entity's ordinances governing the subject matter of the proposed delegation;

(2) a description of pertinent enforcement processes available to the entity, administratively and through initiation of court action, to ensure compliance with AS 46.03, this chapter, and the entity's ordinances;

(3) a description of the entity's administrative organization, staff, funding levels, and other resources that are available to administer and enforce the entity's requirements; and

(4) other information that the director considers necessary to the department's decision whether to delegate the department's authority.

(c) Within 90 days after receipt of a complete application for delegation, the department will, in its discretion, delegate the authority to implement 18 AAC 72.005 – 18 AAC 72.660, or a portion thereof, to an entity if the department finds, after review of information submitted under (b) of this section and with respect to the subject matter of the proposed delegation, that

(1) the entity's ordinances are at least as stringent as the requirements of AS 46.03 and this chapter;

(2) the entity has sufficient resources and enforcement authorities to ensure uniform compliance with the requirements of AS 46.03 and this chapter; and

(3) the state is adequately protected from liability.

(d) A delegation the department has approved under (c) of this section is effective upon the execution of both the director and the individual with administrative management authority for the entity. The delegation will include, at a minimum, terms and conditions that set out the following:



- (1) the right of the department to periodically audit the entity to ensure compliance with the terms and conditions of the delegation;
- (2) the right of the department and the entity to review and comment on proposed changes to regulations or ordinances addressing the subject matter of the delegation;
- (3) the right of the department to require an annual report from the entity summarizing the domestic wastewater systems the entity approved or inspected;
- (4) the requirement that the entity enforce the ordinances; and
- (5) the right of the department to terminate the delegation if the department determines that the delegation

(A) creates a threat to public health, public and private water systems, or the environment; or

(B) that the delegation is not in the public interest.

(e) If the department determines, based on an audit conducted under (d) of this section or other information, that the entity is not in compliance with the terms and conditions of the delegation, with AS 46.03, or with this chapter, the department will

(1) notify the entity in writing of

(A) the areas in which the department has determined that the entity is failing to comply; and

(B) the reasons for the department's determination;

(2) allow the entity 30 days after receiving the notification under (1) of the subsection to

(A) explain why the entity disagrees with the department's determination;

or

(B) outline the steps that the entity is taking or proposes to take to correct the areas of noncompliance.

(f) After reviewing the information received under (e) of this section, the department will, in its discretion,

(1) revoke the delegation, if the department finds that the entity is not in compliance with the terms and conditions of the delegation, with AS 46.03, or with this chapter, and that the entity is not likely to come into compliance;

(2) periodically review the actions of the entity until compliance is achieved, if the department finds that the entity is not in compliance with the terms and conditions of the delegation, with AS 46.03, or with this chapter, but that the entity is taking sufficient steps to come into compliance; or

(3) modify the delegation as necessary to protect public health, public and private water systems, and the environment.

(g) If the department modifies or revokes a delegation under this section, the department will send a notice to the entity stating that, based on the department's written findings,

(1) the delegation will be revoked or modified effective immediately, unless the notice gives a specific date on which the revocation or modification becomes effective; and the entity may not continue to enforce its authority after the effective date of the revocation or modification.

(2) the entity may not continue to enforce its authority after the effective date of the revocation or modification.

(h) An entity may not further delegate a delegation under this section.

(i) A delegation under this section does not include the issuance of permits under 18 AAC 72.010 or 18 AAC 83. An entity with a delegation under this section is not required to charge a fee listed under 18 AAC 72.955. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 46.03.010 AS 46.03.050

**Editor's Note:** Delegation of authority was previously located at 18 AAC 72.280.

**Article 2 is repealed in its entirety and readopted to read:**

**Article 2. Wastewater System Plan Review**

**Section**

- 200. Application for department approval
- 201. Exceptions to prior written approval of engineering plans
- 205. General submittal requirements
- 210. (Repealed)
- 215. (Repealed)
- 220. Plan review
- 225. Approval to construct
- 230. Revisions to approved plans
- 235. (Repealed)
- 240. Construction certification and approval to operate
- 245. Treatment works
- 250. (Repealed)
- 255. Stabilization ponds

260. (Repealed)

263. (Repealed)

265. Soils analysis and report

270. Collection and pumping systems

275. Disposal systems

280. (Repealed)

290. After-the-fact approval of systems

**18 AAC 72.200. Application for department approval.** (a) Except as otherwise provided in 18 AAC 72.010(c), 18 AAC 72.201, 18 AAC 72.511, or 18 AAC 72.611, in order to construct, install, modify, or operate a wastewater collection, treatment, storage, or disposal system, a person must obtain prior written approval. A person seeking approval shall provide to the department a complete application that contains the information required in this chapter.

(b) The department will base its approval of wastewater system plans on the provisions of AS 46.03, this chapter, and other requirements to protect public health, public and private water systems, and the environment.

(c) For applications seeking wastewater plan approval for a method of wastewater treatment or disposal that is not address in this chapter, the department will evaluate the applications on a case-by-case basis. The department's evaluation will consider the plan review provisions, conditions, recommendations from a technical review committee assembled under 18 AAC 72.007, and other applicable criteria set out in AS 46.03 and this chapter. (Eff. 4/1/99, Register 149; am 5/12/2016, Register 218, am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.110  
AS 46.03.020 AS 46.03.100

**Editor's note:** Previous versions of 18 AAC 72.005 – 18 AAC 72.280 applied only to domestic wastewater systems. This revision eliminates the separate requirements or approval process for non-domestic wastewater systems previously addressed at 18 AAC 72.600.

**18 AAC 72.201. Exceptions to prior written approval of engineering plans. (a)**

**Routine Maintenance.** Prior written approval of plans is not required for routine maintenance as defined under 18 AAC 72.990.

(b) **Emergency repair.** Prior written approval of plans is not required for repairs to address an emergency as defined under 18 AAC 72.990. The owner or operator shall notify the department as required by 18 AAC 72.940.

(c) **Replacement in kind.** Prior written approval of plans may not be required to replace components or parts of a wastewater collection, storage, treatment or disposal system. The department will evaluate requests for plan review exemption for replacement in kind on a case by case basis.

(d) **Service line installation or modification.** Prior written approval of plans is not required for a sewer service line installation or modification that does not affect the design capacity or result in the overloading of the collection, treatment, or disposal system. The service line connection may not result in the discharge of wastewater to a system that was not designed to accept the volume or type of waste as approved or permitted by the department. To qualify for this exception, the collection, treatment, and disposal system to which the service line is connected must be owned by a local government organization, or a private or public utility. If the service line is integral to the design and operation of a collection system, this exception does not apply.

(e) **Installation of a sewer main in select cases.** Prior written approval of plans for installation or modification of a sewer main is not required for an existing regulated utility with a certified operator if the utility has been issued an exception under this subsection.

(1) To request an exception to prior written plan approval to construct, install, renovate, or improve a collection system, a regulated utility must

(A) submit a written application for the exception to the department; have current standards of construction on file with and approved by the department;

(B) certify that the design and construction of any sewer main installed under the exception will be completed in conformance with the standards of construction referenced in (B) of this subsection;

(C) certify that the utility will employ and maintain staff qualified to plan, design, construct, operate and inspect the sewer mains installed under the exception; and

(D) maintain an updated list with the names and professional qualifications of the staff proposed to design and oversee installation of the sewer mains installed under this exception, the department will make the final determination on whether the staff are sufficiently qualified.

(2) If the department grants an exception under in this subsection, the department will notify the regulated utility in writing, specifying the scope and duration of the exception, any conditions for maintaining the exception, and the date by which any application for renewal must be submitted to the department.

(3) By December 31 of each year, the regulated utility must submit to the department an updated utility map or engineering plans that highlights projects completed under the exception.

(4) The department may conduct periodic audits of the regulated utility's oversight of projects that commenced under the authority of this subsection.

(5) The department may deny or revoke the exception granted under this subsection if the department determines that the utility does not qualify for the exception, is not in compliance with the terms of this subsection, or that the exception creates a risk to public health. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 46.03.010 AS 46.03.050 AS 46.03.120

**18 AAC 72.205. General submittal requirements.** (a) For a submittal requesting approval under 18 AAC 72.200 to be considered complete, an applicant must include

(1) the plan review fee required by 18 AAC 72.955 unless the fee is calculated under 18 AAC 72.959;

(2) a fully completed plan intake form on the form provided by the department;

(3) a completed owner's statement on the form provided by the department;

(4) cover letter, engineers report, and calculations, sealed by a registered engineer, that adequately represents and demonstrates the design

(A) meets the applicable approval criteria in this chapter;

(B) meets the minimum treatment requirements of this chapter; and

(C) protects drinking water sources and systems, groundwater, and surface waters;

(5) engineering plans that clearly and legibly depict the design and are

(A) half-size drawings (11-inch by 17-inch); or

(B) 8.5-inch by 11-inch drawings;

(6) a statement identifying new discharge permits required or existing permits that remain valid; assert that a discharge, if any, meets effluent limitations in a permit authorizing that discharge issued under this chapter, 18 AAC 83, or a permit issued under 33 U.S.C. 1342 (Clean Water Act, sec. 402);

(7) a description of measures to protect nearby surface water from siltation or other contamination resulting from construction of the project; adequate measures include compliance with the conditions in a permit issued by the department under 18 AAC 83.005 – 18 AAC 83.990 or a permit certified by the department under 18 AAC 15.130 – 18 AAC 15.180 for construction-related discharges;

(8) a description of the provisions to maintain operation of existing services and treatment processes affected by the project during construction; and

(9) if a wastewater system serves multiple lots or facilities owned by different individuals or entities, documentation showing

(A) the existence or formation of a local government organization, a homeowner's association, a private utility, a commercial entity, or other entity, the purpose of which is to operate and maintain the system; or

(B) a certificate of public convenience and necessity issued by the Regulatory Commission of Alaska under AS 42.05.221 if a public utility within the meaning of AS 42.05.990 operates the system;

(10) for a wastewater system that has 100 or more service connections or the system is used, or intended for use, by 500 or more individuals per day, documentation showing that the operator is or will be certified as required by 18 AAC 74 before operation of the system;



(11) if a wastewater discharge is proposed to an existing collection or disposal system, documentation showing that

(A) the receiving system has sufficient capacity to accommodate flows expected from the proposed discharge; and

(B) if owned by a separate entity, the owner of the receiving system has approved the discharge.

(b) The submittal must also include any additional items as required by this chapter that are applicable to the project. (Eff. 4/1/99, Register 149; am 1/17/2002, Register 161; am 7/29/2006, Register 179; am 5/12/2016, Register 218; am XX/XX/XXXX, Register XXX)

<b>Authority:</b>	AS 44.46.020	AS 46.03.050	AS 46.03.110
	AS 44.46.025	AS 46.03.070	AS 46.03.120
	AS 46.03.020	AS 46.03.100	AS 46.30.040

**18 AAC 72.210. Domestic wastewater fees.** Repealed. (Eff 4/1/99, Register 149; repealed 1/17/2002, Register 161)

**Editors Note:** The fees that were located in 18 AAC 72.210 are now located in 18 AAC 72.955, 18 AAC 72.957, and 18 AAC 72.959.

**18 AAC 72.215. Permit required.** Repealed. (Eff 4/1/99, Register 149; am 1/17/2002, Register 161; am 7/29/2006, Register 179; repealed XX/XX/XXXX, Register XXX)

**Editors Note:** The subject of this section is addressed at 18 AAC 72.010.

**18 AAC 72.220. Plan review.** (a) In reviewing an application to construct, modify, or

operate a wastewater system, the department will determine whether the system design

(1) meets the applicable approval criteria in this chapter; and

(2) conforms to standard sanitary engineering principles and practices or state-of-the-art technology, and whether the design adequately protects public health, public and private water systems, and the environment.

(b) The department will require the applicant to provide additional justification for a design if the department determines the design does not adequately protect public health, public and private water systems, or the environment.

(c) As necessary to protect public health, public and private water systems, and the environment, the department will require that designs for sewers, wastewater treatment works, and wastewater disposal systems have a history of meeting or exceeding the treatment or permit requirements of this chapter in comparable environmental conditions.

(d) Lacking information on past performance of a system design, the department will place conditions of construction or operation of the system or require monitoring of the system as necessary to protect public health, public and private water systems, and the environment.

(e) The department will, in its discretion, provide advisory notes to the applicant as technical assistance for items beyond the requirements of this chapter.

(f) If the department requests additional information to satisfy the submittal requirements or to adequately evaluate whether a system design is in conformance with this chapter, the applicant has 45 days to fulfill the request. If the additional information is not provided within 45 days of the request, the department will issue a notice, the application will be closed as incomplete, and a new application, including the appropriate plan review fee, must be submitted

for department review. (Eff. 4/1/99, Register 149; am 1/17/2002, Register 161, am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.010 AS 46.03.050  
AS 44.46.025 AS 46.03.020

**18 AAC 72.225. Approval to construct.** (a) The department will issue its approval or denial to construct a wastewater system after the department receives and reviews all plans and information required by this chapter.

(b) As necessary to protect public health, public and private water systems, and the environment, the department will include terms and conditions for construction in its approval.

(c) If the applicant fails to complete construction, installation, or modification of the wastewater system within two years after the date that the department issues an approval to construct under this chapter, the approval is void and plans must be resubmitted for department review and approval.

(d) The department, in its sole discretion, may grant an extension of the two-year construction period in (c) of this section upon request of the applicant and receipt of information that verifies

(1) the system design has not changed and conforms to regulations currently in effect;

(2) the system design conforms to current standard sanitary engineering principles and practices;

(3) relevant site conditions have not changed; and

(4) the proposed timeline for completion of the project. (Eff. 4/1/99, Register 149; am 4/8/2012, Register 202; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 46.03.010 AS 46.03.050 AS 46.03.120

**18 AAC 72.230. Revisions to approved plans.** (a) After plans for a system design are approved under 18 AAC 72.225, the system owner, operator, or the design engineer must obtain written department approval before making any revision to that design that modifies or affects

- (1) capacity, flow, or operation;
- (2) the type or characteristics of the wastewater treated;
- (3) the design of major system components, such as treatment systems;
- (4) the point of discharge;
- (5) materials of major system components, including pipe and stabilization pond

liners; or

- (6) applicable separation distance requirements in this chapter.

(b) Any revisions proposed for approval under (a) of this section must

- (1) be clearly depicted with respect to the original plans;
- (2) meet the applicable requirements of AS 46.03 and this chapter; and
- (3) be signed and sealed by a registered engineer.

(c) As necessary to protect public health, public and private water systems, and the environment, the department will require remedial action to bring any revision into compliance with this chapter before issuing final approval to operate under 18 AAC 72.240. (Eff. 4/1/99,

Register 149; am 5/12/2016, Register 218; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 46.03.010 AS 46.03.050 AS 46.03.110

**18 AAC 72.235. Construction certification.** Repealed (Eff. 4/1/99, Register 149; repealed XX/XX/XXXX, Register XXX)

**Editors note:** This contents of this section are addressed at 18 AAC 72.240.

**18 AAC 72.240. Construction certification and approval to operate.** (a) The owner and engineer responsible for observing construction shall ensure that the system is constructed according to design plans approved by the department, or according to record drawings showing that the system was constructed as required by AS 46.03 and this chapter.

(b) For a wastewater collection, treatment, storage, or disposal system, and the designated phases of such a system, that received approval to construct under 18 AAC 72.225 and, if applicable, approval for revisions to approved plans under 18 AAC 72.230:

(1) an approval to operate the system for a 90-day interim period will accompany the approval to construct the system; the 90-day interim period starts when the project or designated phase of the system is considered complete or is first put into service, whichever comes first;

(2) operation of the system, completed portions of the system, or a designated phase of the system, beyond the 90-day interim period is prohibited unless

(A) the department grants an extension the 90-day interim period; or

(B) the system, portion thereof, or a designated phase of that system, has received final approval to operate from the department under this section; and

(3) the department will issue final approval to operate after receipt and review of the information required by (c) of this section if the information confirms that

(A) the system was constructed as originally approved; or

(B) the system, or a designated phase of that system, otherwise meets the requirements of AS 46.03 and this chapter.

(c) Within 60 days after completion of construction, installation, modification, or operation of the project, the owner or engineer of the project shall submit to the department information as required for the type of wastewater system with

(1) a certification that the project was constructed in compliance with (a) of this section on the “certification of construction” form available from the department and signed by

(A) the owner;

(B) each contractor who constructed the system; and

(C) the registered engineer responsible for observing construction; and

(2) record drawings prepared by the engineer responsible for observing construction of the project and

(A) if the observing engineer was the same as the design engineer, each sheet of the record drawings must clearly show any deviations from the original design, be clearly labeled record drawing with the signature and date of the engineer, and bear the original signed seal of the engineer or bear a new signed and dated seal;

(B) if the observing engineer was different than the design engineer and

(i) if there were no deviations from the original design, each sheet of the record drawings must bear the original signed seal of the design engineer and clearly be labeled record drawing with the date, printed name, registration number, and signature of the observing engineer; or

(ii) if there were deviations from the original design, each sheet of the record drawings must clearly show the deviations from the original design, be sealed by the observing engineer, and must clearly be labeled record drawing.

(d) The department will require periodic groundwater monitoring or place other conditions to operate on the system if the department finds that there is a concern about public health, public and private water systems, or the environment. (Eff. 4/1/99, Register 149; am XX/XX/XXXX, Register XXX)

<b>Authority:</b>	AS 44.46.020	AS 46.03.020	AS 46.03.100
	AS 46.03.010	AS 46.03.050	AS 46.03.110

**18 AAC 72.245. Treatment works.** (a) Plans submitted for department approval under 18 AAC 72.200 for construction or modification of a wastewater treatment works must include

- (1) the submittal requirements of 18 AAC 72.205;
- (2) plans, reports, and drawings sealed by a registered engineer;
- (3) the design calculations or design criteria for the following parameters:
  - (A) design flows and wastewater loading rates;
  - (B) treatment capacities and expected effluent quality;
  - (C) selection and arrangement of unit operations and processes;
  - (D) material and equipment selection and specifications;
  - (E) siting with respect to potential for health hazards, nuisances, flooding, and effect on groundwater and surface waters;
  - (F) bedding, backfill and final grading;
  - (G) methods to control operational variables;

(H) methods and location of disposal of septage, sludges, grit, screenings, and other facility residuals;

(I) thermal protection considerations; and

(5) provisions demonstrating facility bypasses are controlled and bypasses will not result in a discharge of wastewater that does not meet applicable minimum treatment requirements of this chapter.

(b) The separation distance from each part of the treatment works must

(1) meet the minimums set out in 18 AAC 80 for a public water system, unless the department has approved a lesser separation distance under that chapter;

(2) meet the minimums set out in 18 AAC 72.100 for a private water system unless the department has approved a lesser separation distance under this chapter; and

(3) is a minimum of 100 feet from the mean annual high water level of a lake, river, stream, spring, or slough, or the mean higher high water level of coastal waters.

(c) To obtain an approval to operate a wastewater treatment works, the applicant shall submit to the department

(1) items required under 18 AAC 72.240; and

(2) if requested, a copy of the operations and maintenance manual developed in accordance with manufacturer recommendations and specifically addressing the system as installed.

(d) If no discharge permit is required, the department may require periodic testing and reports that demonstrate the system meets expected performance criteria. (Eff. 4/1/99, Register 149; am 7/29/2006, Register 179; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100



AS 46.03.010

AS 46.03.050

AS 46.03.110

**18 AAC 72.250. Utilidors.** Repealed. (Eff. 4/1/99, Register 149, repealed XX/XX/XXXX, Register XXX)

**Editors note:** Utilidors will be reviewed under 18 AAC 72.270. For utilidors that contain components associated with a public water system, separation distance requirements and other criteria are addressed at 18 AAC 80.

**18 AAC 72.255. Stabilization ponds.** (a) Plans for construction of a stabilization pond must include

(1) in addition to the submittal requirements of 18 AAC 72.245, the design or design criteria must include

(A) dike design, materials, construction, and safety; and

(B) methods and location for disposal of non-piped wastewater including truck hauled waste and honey bucket disposal;

(2) soils analysis and report meeting the criteria of 18 AAC 72.265;

(3) for nonpercolating stabilization ponds, the coefficient of permeability of the pond liner does not exceed an equivalent percolation rate of 500 gpd per acre at a water depth of six feet; and

(4) for percolating stabilization ponds, hydrologic data and groundwater modeling demonstrating compliance with any permit issued under this chapter and information demonstrating the use of the stabilization pond will not interfere with existing public and private drinking water sources.

(b) To obtain an approval to operate a stabilization pond, the applicant shall submit to the department items required under 18 AAC 72.240. (Eff. 4/1/99, Register 149; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 46.03.010 AS 46.03.050 AS 46.03.110

**18 AAC 72.260. Community and alternate soil absorption systems.** Repealed. (Eff. 4/1/99, Register 149; repealed XX/XX/XXXX, Register XXX)

**Editors note:** Requirements for community wastewater systems proposing conventional soil absorption systems are addressed at 18 AAC 72.501 – 18 AAC 72.560. Requirements for an alternate soil absorption system are addressed at 18 AAC 72.601 – 18 AAC 72.660.

**18 AAC 72.263. Package plants.** Repealed. (Eff. 4/1/99, Register 149; am 5/12/2016, Register 218, repealed XX/XX/XXXX, Register XXX)

**Editors note:** Package plants are addressed at 18 AAC 72.601 – 18 AAC 72.660.

**18 AAC 72.265. Soils analysis and report.** The soils analysis and report must meet the following criteria:

(1) the number of test holes, minimum test hole depth, and percolation tests must be sufficient to adequately evaluate subsurface characteristics of the area for the type of system proposed;

(2) soils in the usable wastewater disposal area must be shown by percolation test to have an acceptable percolation rate for the type of system proposed; percolation tests must be

(A) performed by a registered engineer, or a person under the responsible charge of a registered engineer;

(B) be performed in accordance with standard sanitary engineering principles and practices;

(C) taken in each soil stratum to be included in an infiltrative surface area; and

(D) confirmed to be accurate by a correlation of the observed soil texture in the test hole with the range of soil texture types associated with percolation rates in Table 4 in 18 AAC 72.530;

(3) soil borings and soil analysis must show the location and elevation of seasonal high water table and impermeable strata in relation to the wastewater system;

(4) seasonal high water table must be determined by

(A) monitoring test holes or soil borings taken between June 1 and September 30;

(B) soil mottling analysis;

(C) interpretation of levels of standing open water;

(D) the knowledge and experience of the engineer, based on past subsurface investigative work in the vicinity of the project; or

(E) a combination of these methods;

(5) the depth to seeps, if any, must be recorded; the department may require subsequent monitoring;

(6) in areas known or suspected to contain permafrost

(A) a soil moisture content profile analysis derived from laboratory testing methods must show the soils are adequately drained throughout the usable wastewater disposal area; and

(B) the results of a geotechnical study must show that the area can successfully be used for the system proposed and will remain stable under the proposed design; and

(7) the report must be sealed by a registered engineer. (Eff. 4/1/99, Register 149; am 5/12/2016, Register 218; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 46.03.010 AS 46.03.050 AS 46.03.110

**18 AAC 72.270. Collection and pumping systems.** (a) Plans for construction of a collection and pumping system must include

- (1) the submittal requirements of 18 AAC 72.205;
- (2) plans and profiles for sewer mains and community sewer lines to include manholes and lift stations with invert elevations;
- (3) design calculations, design criteria, and specifications for
  - (A) design flows, pipe size, and pipe materials;
  - (B) hydraulic grade line considerations associated with pressurized portions of a sewer line;
  - (C) vacuum sewer lift segments;
  - (D) pump station, collection station, or surge tank capacities;
  - (E) overflows, alarms, solids handling, provisions for servicing, and emergency operations;

(F) manhole or cleanout placement, and methods for cleaning the collection system;

(G) siting with respect to health hazards, nuisance potential, stream crossings, and flooding;

(H) bedding and backfill;

(I) thermal protection considerations; and

(J) provisions for steep slope and high velocity protection if applicable.

(b) A collection and pumping system design must include the following criteria:

(1) the mean conduit velocity, when flowing full, is not less than two feet per second for the collection system design;

(2) pipe sizes adequate for the maximum expected flow and designed so that the diameter of any receiving sewer line is equal to or greater than the diameter of the largest sewer line connecting to it;

(3) the alignment of a gravity sewer line between manholes shall be straight and at a uniform slope; a manhole must be installed at changes in pipe slope, size, alignment, and at intersections;

(4) the location meets the minimum separation distance requirements set out in

(A) 18 AAC 80 for public water systems unless the department has approved a lesser separation distance under that chapter; and

(B) 18 AAC 72.100 for private water systems unless the department has approved a lesser separation distance under this chapter;

(5) pump stations and collection stations, other than those designed for pumping from individual service connections or onsite septic tanks, must be equipped with at least two pumps, each of which can handle flows equal to or in excess of the design flow;

(6) pump stations must be equipped with an audible and visual high water alarm;

(7) the system does not collect stormwater or silty water from construction dewatering efforts, gutter runoff, or street runoff;

(8) the system discharges to an approved wastewater treatment works with adequate capacity;

(9) the system does not collect oil, petroleum products, industrial solvents, or other substances detrimental to the receiving wastewater treatment works; and

(10) if proposing to discharge to an existing collection system, documentation must be provided showing that

(A) the receiving system has sufficient capacity to accommodate flows expected from the proposed discharge;

(B) the receiving system is permitted or approved to accept the type of wastewater proposed; and

(C) the owner of the receiving system has approved the discharge. (Eff.

4/1/99, Register 149; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 46.03.010 AS 46.03.050 AS 46.03.110

**18 AAC 72.275. Disposal systems.** (a) Plans for construction of a surface water outfall must include

(1) the submittal requirements of 18 AAC 72.205;

- (2) information describing how the provisions of 18 AAC 72.050 will be met;
- (3) design calculations, design criteria, and specifications for
  - (A) design flows, waste loads, and expected effluent quality;
  - (B) pipe size and material;
  - (C) siting with respect to health hazards, nuisance potential, and flooding;
  - (D) methods to control operational variables;
  - (E) bedding and backfill;
  - (F) anchoring systems;
  - (G) thermal protection considerations;
- (4) specifications for the materials, methods, and techniques used to install and secure the outfall line that will prevent structural damage to, or movement of, the outfall as a result of wave action within the surf zone, storms, beach logs, ice, settling, or current;
- (5) if a mixing zone is requested, mixing and dilution calculations showing that the outfall line's length, grade, orifice size and number, depth, and distance out from lowest water level provide for effluent dispersion and dilution sufficient to meet any discharge permit requirements, standard sanitary engineering principles and practices, or to otherwise comply with AS 46.03 and this chapter;
- (6) for a gravity sewer extending into the receiving waters, a manhole or clean-out at the shore end to allow access for maintenance;
- (7) a provision to sample the effluent before the effluent mixes with the receiving waters; and
- (8) location of any nearby aquatic farms or commercial or subsistence shellfish harvest areas and information demonstrating the discharge is not a threat to these activities.

- (b) Plans for the construction of a land surface disposal system must include
- (1) the submittal requirements of 18 AAC 72.205;
  - (2) information describing how the provisions of 18 AAC 72.050 will be met;
  - (3) design calculations, design criteria, and specifications for
    - (A) design flows and wastewater loading rates;
    - (B) treatment capacities and expected effluent quality;
    - (C) siting with respect to potential for health hazards, nuisances, and flooding;
    - (D) assimilative capacity of the soil and associated flora, and the ultimate impact on groundwater or surface water;
    - (E) material and equipment selection and specifications;
    - (F) methods to control operational variables;
    - (G) thermal protection considerations;
  - (4) documentation that the owner of the facility discharging wastewater onto the land
    - (A) owns the land treatment area; or
    - (B) has written authorization from the landowner to discharge wastewater onto the land;
  - (5) provision to protect the land treatment area from public access;
  - (6) documentation demonstrating that the topography, hydrology, geology, and soil characteristics of the land treatment area are adequate to protect existing and potential water and land uses outside of the land treatment area, including subsistence, housing, education, industry, recreation, and agriculture; and



(7) an explanation of how the method of discharge prevents transmission of disease.

(c) The department will consider other means of final disposal on a case by case basis to determine whether they are protective of public health, public and private water systems, and the environment. (Eff. 4/1/99, Register 149; am 7/29/2006, Register 179; am XX/XX/XXXX, Register XXX)

<b>Authority:</b>	AS 44.46.020	AS 46.03.020	AS 46.03.100
	AS 46.03.010	AS 46.03.050	AS 46.03.110

**Editor's note:** Requirements for disposal systems proposing a conventional soil absorption system are addressed at 18 AAC 72.501 – 18 AAC 72.560 or an alternate soil absorption system are address at 18 AAC 72.601 – 18 AAC 72.660.

**18 AAC 72.280. Delegation of domestic wastewater system plan review.** Repealed.  
(Eff. 4/1/99, Register 149; am 1/17/2002, Register 161; repealed XX/XX/XXXX, Register XXX)

**Editor's note:** Delegation of authority is addressed at 18 AAC 72.110.

**18 AAC 72.290. After-the-fact approval of systems.** For systems that were constructed, installed, or modified without written approval by the department as required by 18 AAC 72.200 or did not receive final approval to operate under 18 AAC 72.240, a person may request operational approval of a wastewater collection, treatment, storage, or disposal system by submitting to the department engineering plans and reports that evaluates, documents, and demonstrates the wastewater collection, treatment, storage, or disposal system conformance to this chapter and AS 46.03, along with the plan review fee required by 18 AAC 72.955 unless the

fee is calculated under 18 AAC 72.959. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 46.03.010 AS 46.03.050 AS 46.03.110

**Article 4 is repealed in its entirety and readopted to read:**

**Article 4. Certified Installer Program**

**Section**

- 400. General provisions
- 405. Certification of installers
- 410. Approval of homeowners
- 415. Training and examination requirements
- 420. Certification term
- 425. Certification renewal
- 430. Suspension or revocation of certification; hearing for revoked certification
- 435. (Repealed)
- 440. (Repealed)

**18 AAC 72.400. General provisions.** Except as otherwise provided in 18 AAC 72.511, a person may not construct, install, or modify any part of a conventional onsite wastewater system unless that person is certified under 18 AAC 72.405 or approved under 18 AAC 72.410.

(Eff. 4/1/99, Register 149, am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.100

**18 AAC 72.405. Certification of installers.** (a) A person seeking certification to install conventional onsite wastewater systems under 18 AAC 72.511 must be a contractor who has a valid license, issued under AS 08.18 and 12 AAC 21, to work as

- (1) a general contractor;
- (2) an excavation contractor;
- (3) a water and sewer contractor; or
- (4) an employee of a contractor described in (a)(1), (a)(2), or (a)(3) of this

subsection; the employee must submit to the department

(A) a letter signed by the contractor stating that the person is authorized to work under that contractor's license; and

(B) a copy of the contractor's license.

(b) The department will certify a person and issue a numbered certificate after the person

- (1) meets the training and examination requirements of 18 AAC 72.415;
- (2) provides documentation to the department meeting the requirements of (a) of

this subsection; and

(3) pays the certification fee required under 18 AAC 72.954.

(c) The department will waive the requirements of (a) of this section if

(1) the department determines that public health, public and private water systems, and the environment are adequately protected; and

(2) the individual applying for certification

(A) is employed by a government or health corporation; and

(B) provides documentation to the department of that employment. (Eff. 4/1/99, Register 149; am 1/17/2002, Register 161; am 5/12/2016, Register 218; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 44.46.025 AS 46.03.050

**18 AAC 72.410. Approval of homeowners.** (a) The department will approve a homeowner to construct, install, or modify a conventional onsite system that serves the individual's owner-occupied private residence if, prior to installation, the person

- (1) completes the department's training course provided under 18 AAC 72.415(a) or an online training course offered or endorsed by the department;
- (2) submits a completed application to the department on a form provided by the department; and
- (3) submits the homeowner training fee required by 18 AAC 72.954.

(b) Approval of a homeowner to install a conventional onsite system under this section authorizes the homeowner to install one system within a one year period, beginning on the date the homeowner completes the training course. (Eff. 4/1/99, Register 149; am 5/12/2016, Register 218; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 44.46.025 AS 46.03.050

**18 AAC 72.415. Training and examination requirements.** (a) A person seeking certification under 18 AAC 72.405 for the first time or after a lapse in certification shall attend a conventional onsite systems training program that the department provides or sponsors. The

person must pass the written examination administered as part of the training program. Prior to attending the department training program, the person shall submit to the department

(1) a completed application for attendance on a form provided by the department;

and

(2) the training course fee required by 18 AAC 72.954.

(b) A person seeking recertification under 18 AAC 72.425 shall

(1) complete the department training program described in (a) of this section; or

(2) attend a conventional onsite systems training course that the department

endorses as meeting the department's training and examination requirements.

(c) A homeowner that participates in the training program under (a) of this section is exempt from the written examination but, prior to the event, must submit to the department

(1) a completed application for attendance on a form supplied by the department;

and

(2) the homeowner training fee required by 18 AAC 72.954.

(d) Examinations administered to comply with (a) of this section will be graded by the department or its designee. The department will notify the applicant of the results after reviewing and grading the examination. Upon request, the department will review the examination results with the examinee. (Eff. 4/1/99, Register 149; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100

AS 44.46.025 AS 46.03.050

**18 AAC 72.420. Certification term.** Except as provided in 18 AAC 72.430 or 18 AAC 72.954(b), a certification under 18 AAC 72.405 is valid for two years after the date of

training. (Eff. 4/1/99, Register 149; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.100  
AS 46.03.020

**18 AAC 72.425. Certification renewal.** (a) A person who seeks to renew a certification must hold a current certification and meet the requirements of 18 AAC 72.405.

(b) The department will exempt a person seeking certification renewal from the written examination requirement for the department offered training course if the person

(1) completes at least 0.4 continuing education units or five professional development hours directly related to drinking water or wastewater systems during the certification period and submits documentation to the department at least 30 days prior to attending the department offered training course;

(2) did not submit any documentation with major deficiencies; and

(3) installed all systems in accordance with 18 AAC 72.501 – 18 AAC 72.550.

(c) If a certification will expire before the next training course is offered, the department will extend certification to the date of the next training course offered for a person meeting (a) of the section. (Eff. 4/1/99, Register 149; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 44.46.025 AS 46.03.050

**Editor's Note:** Any continuing education credits or professional development hours received for attendance of the department offered training course do not apply towards the fulfillment of 18 AAC 72.425(b)(1).

**18 AAC 72.430. Suspension or revocation of certification; hearing for revoked certification.** (a) If a certified installer has not submitted all documentation requirements in accordance with 18 AAC 72.550, the department may suspend the certification of a person. The department will send notice of a suspension to a certified installer that

- (1) lists the deficient documentations; and
- (2) state the installer may not continue to perform installations under AS 46.03

and this chapter until the deficient documentations are resolved to the satisfaction of the department.

(b) The department may revoke a certification issued under 18 AAC 72.405 or 18 AAC 72.425 if the department finds that

- (1) fraud or deceit was used to obtain certification; or
- (2) the certified installer substantially or willfully violated a requirement of

AS 46.03 or this chapter.

(c) If the department decides to revoke a certification under this section, the department will send the certified installer a notice that states

- (1) the grounds for revocation;
- (2) that the revocation begins 30 days after the date of the notice;
- (3) that the installer may not perform installations or modifications of

conventional onsite wastewater systems on or after the date when the revocation begins;

- (4) that the installer may appeal the revocation decision by requesting an adjudicatory hearing under 18 AAC 15.200 not later than 30 days after the date of the notice.

(d) An installer whose certificate has been revoked under (b) of this section may not apply for certification for 12 months after the date of revocation and must complete the

requirements of 18 AAC 72.405. (Eff. 4/1/99, Register 149; am XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.100  
AS 46.03.020

**18 AAC 72.435. Installation notification and inspection.** Repealed. (Eff. 4/1/99, Register 149; repealed XX/XX/XXXX, Register XXX)

**Editor's Note:** The contents of this section are addressed at 18 AAC 72.550.

**18 AAC 72.440. Fees.** Repealed. (Eff. 4/1/99, Register 149; am 12/23/2009, Register 192; am 10/22/2016, Register 220; repealed XX/XX/XXXX, Register XXX)

**Editor's Note:** The fees addressed in this section are now located at 18 AAC 72.954.

**Article 5 is modified to read:**

### **Article 5. Conventional Wastewater Systems**

#### **Section**

500. (Repealed)

501. Permit and operational requirements

510. (Repealed)

511. Conventional wastewater systems not requiring plan approval

515. Conventional wastewater systems requiring plan approval

520. Separation distance requirements

530. Construction requirements for conventional wastewater systems

540. Waivers

550. Notification and documentation requirements for systems not requiring plan approval



560. After-the-fact registration or approval

**18 AAC 72.500. Permit required.** Repealed. (Eff. 6/30/90, Register 114; am 11/10/94, Register 132; am 1/17/2002, Register 161; am 7/29/2006, Register 179; am 5/12/2016, Register 218; repealed XX/XX/XXXX, Register XXX)

**Editor's Note:** This section previously addressed the permit requirements for nondomestic wastewater systems only. All wastewater systems are now addressed under the same sections and application processes unless specifically stated otherwise within that section.

**18 AAC 72.501. Permit and operational requirements.** A person who discharges wastewater into a conventional wastewater system must have

- (1) a system that meets the requirements of this chapter;
- (2) a system that is documented in accordance with 18 AAC 72.550 or 18 AAC 72.560 if no plan approval is required;
- (3) written approval from the department, if plan approval is required under 18 AAC 72.515; and
- (4) a discharge permit from the department if a permit is required under 18 AAC 72.010. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100

**18 AAC 72.510. Sludge disposal.** Repealed. (Eff. 6/30/90, Register 114; repealed XX/XX/XXXX, Register XXX)

**Editor's Note:** This section previously addressed requirements for nondomestic

wastewater only. All wastewater systems are now addressed under the same sections and application processes unless specifically stated otherwise within that section.

**18 AAC 72.511. Conventional wastewater systems not requiring plan approval.** (a) A conventional onsite system serving only a single private residence, multi-family dwelling, or small commercial facility operated independently on a single lot with a total on lot design flow of not more than 1500 gpd can be installed without prior department approval if the system is installed by a person certified under 18 AAC 72.405.

(b) A conventional onsite system that serves any combination of residential dwellings and/or commercial buildings owned by the same entity with a total facility-wide design flow of not more than 2500 gpd can be installed without prior department approval if the system is installed by a person whose work is completed according to a registered engineer's design and the engineer supervises construction.

(c) A homeowner may install or modify a conventional onsite system that serves the homeowner's owner-occupied private residence without plan approval if, prior to installing a conventional onsite system, the homeowner

(1) is approved under 18 AAC 72.410; and

(2) properly classifies the onsite soils for the purposes of sizing the soil absorption system by

(A) collecting a soil sample from the soil strata in which the absorption field will be installed, and having a registered engineer or a soils laboratory perform a sieve analysis on the soils to provide a classification; or

(B) having a registered engineer visually classify the soils onsite and perform a percolation test, as required. The registered engineer must provide a soils report indicating the appropriate application rate based on their evaluation of site conditions.

(d) In addition to the requirements of (a), (b), or (c) of this section, a conventional onsite system that is installed without prior department approval must

(1) meet the separation distance requirements of 18 AAC 72.520;

(2) meet the construction requirements of 18 AAC 72.530;

(3) be located in soils classified as GW, GP, GM, SW, SP, SM, or ML under the Unified Soil Classification System; and

(4) not be located in an area

(A) known or suspected to contain permafrost;

(B) where other conventional onsite systems have been known to perform poorly;

(C) where the groundwater table is within four feet of the ground surface or the soil conditions are overly moist or wet at any time of the year; or

(D) where the department finds that a discharge threatens public health, public and private water systems, or the environment.

(e) As the department determines necessary to protect public health, public and private water systems, and the environment, the department will

(1) restrict the type of system installation or modification that can be done by a certified installer or approved homeowner;

(2) restrict the geographical location where a system may be installed by a certified installer, approved homeowner or without prior plan approval; and

(3) place other restrictions the department considers necessary. (Eff.

XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.100  
AS 46.03.020 AS 46.03.070

**18 AAC 72.515. Conventional wastewater systems requiring plan approval. (a)**

Before constructing, installing, or modifying any part of a conventional wastewater system, a person must have prior department approval in accordance with 18 AAC 72.200 if

(1) the system has a design flow greater than 2500 gpd;

(2) a single lot or facility has more than one wastewater system and the cumulative on lot or facility-wide design flow is greater than 2500 gpd;

(3) the system serves more than one lot or buildings not under the same ownership;

(4) the system receives non-domestic wastewater; or

(5) the system does not otherwise qualify for the exception under

18 AAC 72.511.

(b) In order for a submittal requesting department approval to be considered complete, in addition to the general submittal requirements at 18 AAC 72.205, an applicant must include

(1) a cover letter, engineer's report, and calculations, sealed by a registered engineer, that fully describes the project and type of facility and adequately demonstrates the design meets the applicable approval criteria in this chapter including

(A) design flow calculations with basis used for calculation;

(B) waste loads and waste strength with basis for calculation if serving a facility other than a residential dwelling;

(C) information and calculations regarding the septic tank size and tank design, including access openings and security;

(D) methods of septic tank pumping and location of septage disposal;

(E) information and calculations regarding the sizing and design of the soil absorption system;

(F) information and calculations regarding private and community sewer lines slopes, conduit velocity, materials, and other relevant details;

(G) information and calculations regarding pumping station design, pump selection, system curves, pressurized sewer lines, and other relevant details;

(H) thermal protection including potential seasonal use considerations;

(I) siting of the system with respect to potential hazards such as slopes and cut banks;

(J) siting of the system with respect to private and public water systems, groundwater, and surface water, and information on how the system is protective of public health, drinking water sources and systems, surface water and groundwater;

(2) engineered soils report that

(A) identifies the location(s) of borings, test holes and percolation tests and describes how they are sufficient to adequately evaluate subsurface characteristics of the area planned for the initial and replacement soil absorption systems;

(B) contains test hole or boring logs that includes information on soil classification, texture, structure, density, and moisture conditions;

(C) if soils are not classified as SW or SP, includes a description of the method and the results of percolation tests of the receiving soils;

(D) identifies the depth to groundwater and depth to any seeps encountered;

(E) identifies the depth to impermeable layer(s) including the presence or absence of permafrost and potential effect on system performance;

(3) design drawings sealed in accordance with 12 AAC 36.185 – 12 AAC 36.245 that clearly and legibly depict the design on 8 1/2-inch by 11-inch or 11-inch by 17-inch paper format; the design drawings must include

(A) scaled site plan that shows the buildings, all wastewater system components and area for replacement infiltrative area, all nearby drinking water sources labeled with the classification of the water system, all nearby surface water, and topography of the site;

(B) plan and profile of private and community sewer lines showing slope, cleanouts, and manholes with invert elevations;

(C) profiles, cross-sectional drawings, or details of all system components as necessary to show methods of construction, bedding and backfill, and conformance with the requirements of 18 AAC 72.530 and standard sanitary engineering principles and practices; and

(4) additional supporting information including

(A) specifications of materials, quality assurance and quality control parameters, engineer observations, and other information that will assist the department in evaluating the system design will be installed in accordance with the plan approval;

(B) if the system design flow, total on lot design flow, or facility-wide design flow is greater than 2,500 gpd, nitrate calculations that are prepared in accordance with standard sanitary engineering principles and practices, are sealed by a registered engineer, and demonstrate that nitrate concentrations in the groundwater aquifer that is most likely to be affected by proposed and existing systems will not exceed five milligrams per liter beyond a distance measured from the edge of the soil absorption field to the nearest downgradient property line, or to a point that the department identifies as necessary to protect public health, public and private water systems, and the environment; and

(5) other information the department determines is necessary to assess the effect of the conventional wastewater system upon public health, public and private water systems, and the environment.

(c) In the event the department requires additional information, or the application is determined to be incomplete, the applicant will be notified. If the applicant fails to provide the additional information not later than 45 days after the department's request, the application will be closed as incomplete and a new application with the plan review fee must be submitted. (Eff. XX/XX/XXXX, Register XXX)

<b>Authority:</b>	AS 44.46.020	AS 46.03.020	AS 46.03.070
	AS 44.46.025	AS 46.03.050	AS 46.03.100

**18 AAC 72.520. Separation distance requirements.** (a) A person who installs or modifies a conventional wastewater system must ensure all existing and new components meet

the minimum separation distances set out in 18 AAC 72.100 for private water systems, in 18 AAC 80 for public water systems, and this section.

(b) The minimum separation distance is 100 feet between the mean annual high water level of a lake, river, stream, spring, or slough, or the mean higher high water level of coastal waters and a septic tank, soil absorption system, lift station, or sewer manhole, measured horizontally from nearest edge to nearest edge.

(c) The minimum horizontal separation distance is 50 feet between any part of the absorption field and a slope greater than 25 percent, whether man-made or natural, with a vertical drop in surface height greater than 10 feet.

(d) The minimum vertical separation distance between the bottom of the distribution media in a conventional soil absorption system and

(1) the annual high water table is four feet; and

(2) an impermeable soil horizon such as bedrock, clay, permafrost, or other soils that percolate slower than 120 minutes per inch is six feet.

(e) The minimum horizontal separation distance between the distribution media in adjacent fields is six feet or two times the depth of media, whichever is greater.

(f) The minimum horizontal separation distance between a septic tank and an absorption field is 10 feet.

(g) The department will require a greater separation distance than what is required by (a) – (f) of this section if the department determines greater separation distance is necessary to protect surface water, groundwater, or a private water system. The department will base its decision on soil classifications, groundwater conditions, surface topography, geology, past



experience, or other factors relevant to the protection of surface water, groundwater, or drinking water. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.080  
 AS 46.03.020 AS 46.03.070 AS 46.03.100

**18 AAC 72.530. Construction requirements for conventional wastewater systems. (a)**

All conventional wastewater systems installed under this chapter must meet the minimum construction requirements of this section unless a waiver is approved under 18 AAC 72.540.

(b) Design flow for the wastewater system must be calculated based on

- (1) 150 gallons per day for each bedroom in a residential dwelling; and
- (2) typical daily flow rates for each unit of a specific type of facility publicly

identified by the department as acceptable.

(c) Each component of a conventional wastewater system, including all sewer lines, septic tanks, and absorption areas, must have the minimum frost penetration protection that meets the requirements of Table 1 of this subsection;

<b>Table 1. INSULATION REQUIREMENTS</b>	
<b>Geographical Area</b>	<b>Depth of Soil Cover or Insulation Equivalent*</b>
Southwest Alaska (Kodiak Island Borough and all areas southwest of Chignik, including Chignik)	2 feet of soil cover

Southeast Alaska (east of 141° West longitude), the coastal area south and east of Valdez (to 141° West longitude), and the Valdez corporate boundary	3 feet of soil cover
All remaining areas of the state	4 feet of soil cover
*Up to two feet of the required soil cover may be substituted with insulation material publicly identified by the department as equivalent. Soil cover shall not be reduced to less than two feet.	

(d) Private and community sewer lines must meet the material specifications publicly identified by the department as acceptable, applicable plumbing codes, and

(1) private and community gravity flow sewer lines must have a minimum nominal diameter of four inches and must be laid at minimum and maximum slopes in accordance with Table 2 of this subsection;

<b>Table 2. MINIMUM AND MAXIMUM SEWER LINE SLOPES</b>		
<b>Nominal Sewer Line Size*</b>	<b>Minimum Slope</b>	<b>Maximum Slope**</b>
4-inch	2%	20%
6-inch	1%	13%
8-inch	0.4%	8%

\*For pipes larger than 8-inch nominal diameter, minimum and maximum slopes must be calculated using the Manning Formula to maintain a minimum velocity of two feet per second and a maximum velocity of 10 feet per second when flowing full.

\*\*Maximum slope may be exceeded for drop connections using a method publicly identified by the department as acceptable or for sewer lines located after pretreatment.

(2) the 10 feet immediately preceding the septic tank may not exceed a two percent slope;

(3) solid pipe without joints must span 10 feet from the inlet and outlet of the septic tank onto undisturbed earth, or the soil may be backfilled and compacted in six inch lifts prior to laying the pipe;

(4) sewer lines must be connected to the inlet and outlet of the septic tank using mechanical watertight couplings;

(5) all pipe to pipe joints must be glued with cement appropriate for the pipe material;

(6) manholes must be installed on community sewer lines where cleanouts are not sufficient as publicly identified by the department as necessary; and

(7) cleanouts must be constructed using a combination wye or long sweep wye fitting that has the same diameter of the private or community sewer line to which it is attached and extend at least one foot above the ground surface. A single cleanout must be installed with the sweep in the direction of flow. A double cleanout must be installed with the upstream sweep in the direction of flow and the downstream sweep against the flow. Cleanouts must be capped and installed

(A) within five feet of the outside wall of the building foundation;

(B) at intervals not to exceed 100 feet in continuous runs; and

(C) prior to each aggregate horizontal change in direction of 45 degrees or more when the sewer line is located before the septic tank.

(e) A septic tank must be installed according to manufacturer specifications, include necessary anti-floatation measures, and meet the following criteria:

(1) the design and construction of the septic tank, exclusive of tank capacity, meets the minimum specifications for septic tanks contained in the Uniform Plumbing Code adopted by reference at 8 AAC 63;

(2) the net minimum volume of a septic tank shall be in accordance with Table 3 of this subsection; and

<b>Table 3. Minimum Septic Tank Size</b>			
<b>Residential Dwellings</b>		<b>Commercial Facilities</b>	
Number of Bedrooms	Minimum Tank Size*	Daily Design Flow	Minimum Tank Size*
0 – 3	1000 gallons	Up to 500 gpd	1000 gallons
4 – 8	1000 plus 250 gallons for each bedroom over 3	501 to 750 gpd	1250 gallons
9 – 13	2500 gallons	751 to 1000 gpd	1500 gallons
14 – 18	3000 gallons	1001 to 1250 gpd	2000 gallons
Greater than 18	1125+0.75*design flow	Greater than 1250 gpd	1125+0.75*design flow

\*Tanks may be used in series or in parallel to achieve the minimum septic tank volume. The installation and design of more than one tank must be by a method publicly identified by the department as acceptable or by an alternate method that has been presented to and approved by the department.

(3) access to the septic tank for maintenance purposes must be provided; for tanks with a net volume

(A) of 2,000 gallons or less, a minimum four-inch diameter cleanout pipe must be installed using a mechanical watertight coupling and extended with a cap at least one foot above the ground surface; or

(B) greater than 2,000 gallons, manhole access openings must be extended to the ground surface using an insulated, watertight, flanged, premanufactured manhole risers with locking lid; manhole risers must be compatible with the tank and installed in accordance with manufacturer's recommendations.

(f) A conventional soil absorption system must

(1) include distribution medium meeting specifications publicly identified by the department as acceptable or alternate specifications presented to and approved by the department; the distribution medium must provide adequate void space and be

(A) a minimum of 12 inches thick for a bed or shallow trench type system;

(B) greater than four feet deep but not more than 12 feet deep for a deep trench type system;

(C) not more than two feet deeper than the bottom of the distribution tank for a seepage pit type system; and

(D) at least 18 inches but not more than four feet deep for a 5-wide type system;

(2) be installed in an area where the original ground surface slope is

(A) less than or equal to 25 percent for a shallow trench, deep trench, or 5-wide type absorption field; or

(B) less than or equal to 10 percent for a bed or seepage pit type absorption field;

(3) have the minimum absorption area calculated from the wastewater application rates in Table 4 of this subsection that corresponds to the soil texture, Unified Soil Classification System, or percolation rate, whichever is most conservative; soils must be classified by digging a test hole or pit within 25 feet of the perimeter of the proposed absorption field and to a minimum of six feet below the estimated bottom of the absorption field;

<b>Table 4. WASTEWATER APPLICATION RATES</b>				
<b>Percolation Rate<sup>a</sup> (minutes/inch)</b>	<b>Soil Texture (Unified Soil Classification)</b>	<b>Application Rate in sf/bedroom</b>	<b>Application Rate in gpd/sf for design flows ≤ 2,500 gpd</b>	<b>Application Rate in gpd/sf for design flows &gt;2,500 gpd</b>
Faster than 1	Gravel (GW/GP)	Not Suitable <sup>b</sup>	Not Suitable <sup>b</sup>	Not Suitable <sup>b</sup>

1 – 5	Gravel (GW/GP)	125	1.2	0.79 – 0.98
1 – 15	Medium to coarse sand (SW/SP)	150	1.0	0.67 – 0.89
6 – 15	Fine sand or loamy sand (SP-SM)	190	0.8	0.61 – 0.74
16 - 30	Sandy loam, silty gravel (GM), silty sand (SM)	250	0.6	0.52 – 0.61
31 – 60 <sup>c</sup>	Loam, silt loam, silt (ML)	335	0.45	0.25 – 0.52
61 – 120 <sup>d</sup>	Silty clay loam, clay loam <sup>e</sup>	Not Suitable <sup>d</sup>	Not Suitable <sup>d</sup>	Not Suitable <sup>d</sup>

a. Soils classified as silty sand (SM), silty gravel (GM), or silt (ML) must have a percolation test conducted. Percolation tests must be performed in accordance with either a method publicly identified by EPA or the department as acceptable, or by an alternate method that has been presented by a registered engineer and approved by the department. A certified installer may perform the percolation test for systems installed under their certification. Soils classified as clay (CL or CH), organic silt or clay (OL), or peat (PT) require an engineer design and prior department approval.

- b. Soils classified as gravel (GW or GP) for which a percolation test has not been conducted or a percolation test result is faster than one minute per inch may still be used if a shallow trench or bed system is installed with a two-foot sand liner below the distribution media and if application rates used are at least 1.0 gpd/sf (150 sf/bedroom). Sand must meet the specifications publicly identified by the department as acceptable. The department may waive the sand liner requirement in a manner set out in 18 AAC 72.540.
- c. Soils with percolation rates slower than 30 minutes per inch are unsuitable for seepage pits.
- d. Soils with percolation rates slower than 60 minutes per inch require an engineer design and prior department approval. Soils with percolation rates slower than 120 minutes per inch are considered impermeable.
- e. Soils without expandable clays or soil types not listed in this table require an engineer design and prior department approval.

(4) have filter fabric placed over the distribution media prior to backfill that meets the specifications publicly identified by the department as acceptable;

(5) has an effluent distribution piping system that is laid level, and the layout is consistent with specifications and methods publicly identified by the department as acceptable for the type of absorption field;

(6) has a vertical monitor tube, at least four inches in diameter, that is perforated within the distribution media then transitioned to solid pipe extended to at least one foot above the ground surface and capped; monitor tubes must be installed

(A) in opposite corners of a bed type absorption field;

(B) at the end of each leg of a trench or 5-wide type absorption field; or



(C) for seepage pits, the monitor tube consists of a solid pipe only attached to the distribution tank; and

(7) the maximum length of a distribution pipe is 100 feet, measured from the point where the wastewater enters the pipe.

(g) A lift station located outside the foundation of a building must be installed according to specifications and methods publicly identified by the department as acceptable and

(1) be equipped with a hardwired audible and visual high water alarm, on a separate electrical circuit from the pump, mounted in a visible location near the lift station or on the exterior of the building; and

(2) if located inside a septic tank

(A) the septic tank volume must be increased by 250 gallons;

(B) the pump is placed in a pump vault, manufactured for that purpose, in the second compartment of the septic tank; and

(C) access to the pump, float switches, and other hardware must be provided through a minimum 20 inch diameter manhole riser to the ground surface;

(3) if installed as a separate unit, the pumping chamber must be premanufactured for that purpose and

(A) have a minimum volume of 350 gallons; and

(B) access to the pump, float switches, and other hardware must be provided through a minimum 24 inch diameter opening; and

(4) if a basement sump or lift station is located before the septic tank, then

(A) the minimum septic tank size described in Table 3 must be increased by at least 25 percent;

(B) it must be equipped with a grinder pump or a pump capable of passing two inch solids; and

(C) if serving multiple structures or dwellings, other than a private residence, it must be equipped with at least two pumps, each of which is capable of pumping flows equal to or greater than the design flow. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.100  
AS 46.03.020 AS 46.03.070

**Editor's Note:** Material specifications and methods publicly identified by the department as acceptable practices for conventional wastewater systems may be obtained at a department office or on the department's website.

**18 AAC 72.540. Waiver.** (a) If the Department determines that a waiver of a requirement of 18 AAC 72.501 – 18 AAC 72.560 will adequately protect public health, private water systems, and the environment, the department may waive or modify that requirement on a site specific basis. The review of separation distance waivers to a public water system, or any components of one, will fall under the requirements of 18 AAC 80.

(b) A request to reduce a separation distance required by 18 AAC 72.100 or 18 AAC 72.520(a) - (g) must be submitted in a report that specifies each waiver being sought. The report must

(1) be sealed by a registered engineer; the department will waive this requirement for conventional onsite systems if the department determines that public health, public and private water systems, and the environment are adequately protected without this requirement and

(A) a site of the proposed system is remote from a community with access to professional engineering services and the resulting cost of bringing a registered engineer to the site would be overly burdensome; or

(B) if the request for reduction is equal to or less than five percent of the required separation distance, the request may be submitted by a person certified under 18 AAC 72.405 for systems being installed or modified by that person;

(2) justify the lesser distance and explain how the lesser distance does not threaten public health, public and private water systems, or the environment;

(3) describe soil classifications, groundwater conditions, surface topography, geology, and other environmental conditions that would assist the department in determining whether a lesser separation distance is protective; and

(4) include a set of plans showing

(A) a site plan with the area's topography, groundwater flow direction, and the location of surface water, existing or potential sources of contamination, and existing or proposed public and private drinking water sources in the area; and

(B) details of the existing or proposed conventional wastewater system construction that will mitigate potential contamination of surface water, groundwater, and existing or proposed private drinking water sources;

(5) if the separation distance reduction is to a private water system, provide information on the construction of the existing or proposed water system; and

(6) other information the department determines to be necessary to assess the effect of a lesser separation distance upon public health, private water systems, and the environment.

(c) A request for modification of the construction requirements for a conventional wastewater system must include a report that specifies each variation being sought. The report must

(1) be sealed by a registered engineer;

(2) justify the waiver or modification of the specific construction requirement based on site specific conditions relevant to the request;

(3) include calculations, engineered plans of the system design, or other information that would assist the department in determining whether the waiver or modification requested will adversely impact the system performance and be protective of public health, public and private water systems, and the environment; and

(4) other information the department determines to be necessary to assess the effect of the waiver or modification requested.

(d) The department's decision under this section will be based on information submitted to justify the waiver or modification, the risk to public health, the environment, protection of surface water, groundwater, existing or proposed drinking water sources, and the impact on conventional wastewater system performance. As necessary, the department will require changes to the system design as a condition of approval.

(e) A request for a waiver or modification under this section must be accompanied by the applicable fee required by 18 AAC 72.955. (Eff. XX/XX/XXXX, Register XXX)

<b>Authority:</b>	AS 44.46.020	AS 46.03.050	AS 46.03.720
	AS 44.46.025	AS 46.03.100	
	AS 46.03.020	AS 46.03.710	

**18 AAC 72.550. Notification and documentation requirements for systems not**

**requiring plan approval.** (a) A person who plans to install a system under 18 AAC 72.511 shall notify the department at least one day prior to beginning construction or modification of the system. The notification must include

(1) the legal description and physical address of the property where the installation or modification will occur, including directions to the site;

(2) the name and telephone number of the person responsible for the system installation and documentation; and

(3) the scheduled date of the installation or modification.

(b) If a person is unable to

(1) provide the notice within the time required by (a) of this section for reasons beyond the control of that person, notification shall be given to the department as soon as possible and before beginning construction or modification; or

(2) install or modify on the date noticed under (a) of this section, the person shall notify the department of the new scheduled date as soon as possible and before beginning construction or modification.

(c) Within 90 days after completing the installation or modification of a conventional onsite system under 18 AAC 72.511, the person responsible for construction of the system shall register the system by submitting a completed documentation of construction using a form provided by the department and including

(1) registered engineer's seal, signature, and date on the documentation of construction form and, if completed as a separate document, on the record drawings; or

(2) certified installer's or approved homeowner's signature on the form; and

(3) photographs that document the various states of installation or modification of each component of the system, including

- (A) foundation cleanouts and sewer lines;
- (B) septic tank with inlet and outlet pipe;
- (C) open excavation of absorption field;
- (D) absorption field with distribution media and pipe;
- (E) absorption field with separator fabric just prior to backfill;
- (F) lift station with high water alarm, if applicable;
- (G) effluent filters, insulation, sand liners, or other specialty components, if installed; and

(H) finished grading and landscaping with standpipes; and

(4) the documentation registration fee as required by 18 AAC 72.955.

(d) The department may conduct an inspection of an installation, modification, or operation of a wastewater system. If the department conducts an inspection of a system due to a complaint, an inspection fee may be charged in accordance with 18 AAC 72.945. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 44.46.025 AS 46.03.050

**18 AAC 72.560. After-the-fact registration or approval.** (a) If a conventional onsite wastewater system was not registered in accordance with 18 AAC 72.550, a person may submit for the department’s assessment an “after-the-fact” registration, or otherwise document a changed use or condition of a conventional wastewater system by

(1) submitting the registration fee required by 18 AAC 72.955;

(2) submitting an adequacy report that is sealed by the registered engineer responsible for performing the evaluation. The adequacy report must include

(A) an assertion that the system as installed is protective of public health, public and private drinking water systems, and the environment;

(B) a description of the methods and procedures used to verify that the system conforms to the construction requirements of 18 AAC 72.530, the separation distance requirements of 18 AAC 72.520, and ability of the system to accept the hydraulic and organic loads from the facility it serves;

(C) information, as can be fairly determined or reasonably assumed, regarding

(i) septic tank size, material, compartments, and access to the tank for maintenance;

(ii) type of soil absorption system and approximate size;

(iii) classification of soils typically encountered in the area or test hole log verifying soil conditions;

(iv) depth to groundwater table and verification that vertical separation distance requirement is met;

(v) general topography of the area including any slopes exceeding 25 percent and cut banks;

(D) information on the design flows with basis used for estimation; and

(E) a site plan drawn to a standard engineering scale, showing the developed features on the lot, the onsite wastewater system location based on visible features such as cleanouts and monitor tubes, the likely locations of subsurface components, and all nearby public and private wells and surface water; and

(3) if the system does not meet the construction requirements of 18 AAC 72.530 or the separation distance requirements listed in 18 AAC 72.520, the report must be accompanied by a request for a waiver in accordance with 18 AAC 72.540.

(b) If a conventional wastewater system was installed without prior department approval as required by 18 AAC 72.515 or did not obtain operational approval in accordance with 18 AAC 72.240, a person may request final operational approval of a conventional wastewater system by submitting the plan review fee required in 18 AAC 72.955 with reports and plans signed and sealed by a registered engineer that

(1) evaluates the system for conformance with this chapter;

(2) to the extent practicable, addresses the information as required by 18 AAC 72.515(b)(1) - (3);

(3) includes a site plan that shows the developed facility, the conventional wastewater system location based on visible features such as cleanouts and monitor tubes, the likely locations of below ground components, and all nearby public and private wells and surface water;

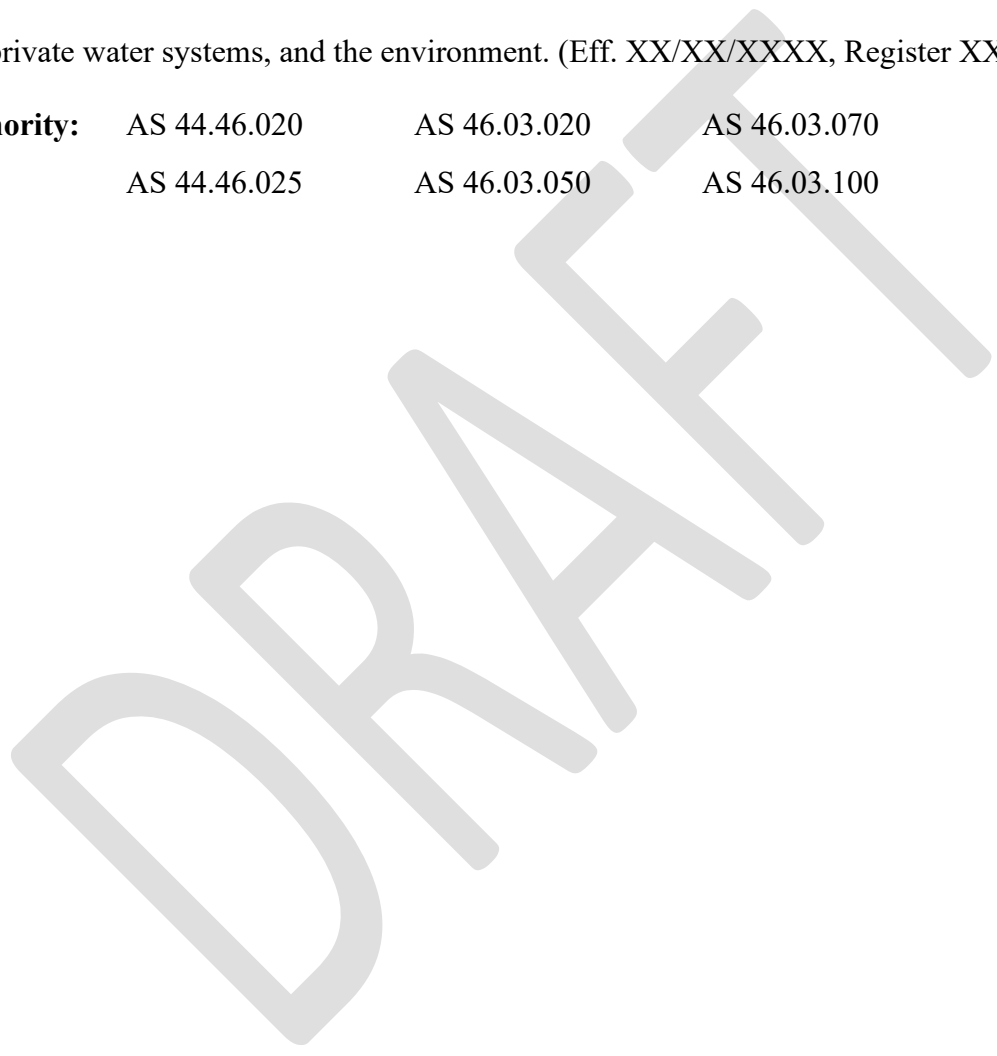
(4) describes the methods and procedures used to verify the system is capable of accepting the hydraulic and organic load from the facility it serves;



(5) if the engineer cannot fairly determine or reasonably assume details of the system construction, or otherwise provide all information as required by (2) of this subsection, an explanation or reason why the information cannot be included; and

(6) a statement by the registered engineer responsible for the evaluating the system that asserts the system, as installed and operating, is protective of public health, public and private water systems, and the environment. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.070  
AS 44.46.025 AS 46.03.050 AS 46.03.100



**Article 6 is modified to read:**

**Article 6. Alternative Wastewater Systems**

**Section**

600. (Repealed)

601. Permit and operational requirements

610. (Repealed)

611. Alternative wastewater systems not requiring plan approval

615. Alternative wastewater systems requiring plan approval

620. Separation distance requirements

630. Construction requirements for alternative onsite systems

640. Waiver

650. Notification and documentation requirements

660. After-the-fact registration

**18 AAC 72.600. Application for department approval.** Repealed. (Eff. 6/30/90, Register 114; am 1/17/2002, Register 161; am 7/29/2006, Register 179; am 5/12/2016, Register 218; repealed XX/XX/XXXX, Register XXX)

**Editor's note:** This section previously addressed requirements for nondomestic wastewater only. All wastewater systems are now addressed under the same sections and application processes unless specifically stated otherwise within that section.

**18 AAC 72.601. Permit and operational requirements.** A person who discharges wastewater into an alternative wastewater system must have

- (1) a system that meets the requirements of this chapter;

- (2) a system documented in accordance with 18 AAC 72.650(c) or 18 AAC 72.660 if no plan approval is required;
- (3) written approval from the department issued under 18 AAC 72.200 – 18 AAC 72.290 if plan approval is required by 18 AAC 72.611(b); and
- (4) a permit from the department if the department requires a permit under 18 AAC 72.010. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100

**18 AAC 72.610. Plan review and permit fees.** Repealed. (Eff. 2/19/93, Register 125; am 11/10/94, Register 132; repealed 1/17/2002, Register 161)

**18 AAC 72.611. Alternative wastewater systems not requiring plan approval.** (a) An alternative onsite system may be installed or modified without prior department approval if the system

- (1) serves a private residence, multi-family dwelling, small commercial facility, or combination thereof, with a total on lot design flow of 1500 gallons per day or less; or
- (2) consists of holding tanks only and serves a temporary or mobile camp associated with mining or oil and gas development; and
- (3) meets all separation distance requirements in 18 AAC 72.620;
- (4) meets all construction requirements in 18 AAC 72.630;
- (5) is installed according to the design and specification of a registered engineer;

and

(6) the registered engineer, or a person under their responsible charge, supervises construction as necessary to ensure system was constructed in compliance with the design and to prepare the record documents as required by 18 AAC 72.650(c).

(b) An alternative wastewater system that does not meet the requirements of (a)(1) or (a)(2) of this section or that is connected to a source of nondomestic wastewater, must have prior department approval in accordance with 18 AAC 72.200 – 18 AAC 72.290. (Eff.

XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.100  
AS 46.03.020 AS 46.03.070

**18 AAC 72.615. Alternative wastewater systems requiring plan approval.** (a) Plans for construction of an alternative wastewater system must include the requirements under 18 AAC 72.205 and 18 AAC 72.245.

(b) For systems proposing an advanced treatment unit or package plant, the submittal must include

(1) documentation the unit is certified by *NSF International Standards/American National Standard NSF/ANSI 40* or equivalent third party accreditation organization; or

(2) a monitoring and sampling plan to demonstrate the treatment unit can successfully treat wastewater for at least one year after installation.

(c) For systems proposing an alternative soil absorption system, the submittal must include

(1) site plans showing the location of all existing or proposed development, the area reserved for replacement soil absorption system, topography, and, within 200 feet of the system, all private or public water systems and surface water;

(2) a soils analysis and report prepared according to 18 AAC 72.265 that demonstrates that the soil types, percolation rates, and depths to seasonal high water table and impermeable strata are suitable for the type of soil absorption system selected;

(3) calculations demonstrating the size of the infiltrative surface area conforms to standard sanitary engineering principles and practices;

(4) pressurized distribution piping design and calculations with pump curves and specifications;

(5) provisions for adequate depth of burial, mounding above grade, or insulation to protect against frost penetration, with insulation equivalent to the standard listed for the applicable geographical area in Table 5 of 18 AAC 72.630; and

(6) for a system, or cumulative systems, with a subsurface discharge design flow greater than 2,500 gallons per day, calculations determining nitrate concentrations in the groundwater aquifer at the nearest downgradient property line of the system site, or to a point that the department identifies as necessary to protect public health, public and private water systems, and the environment; if nitrate concentrations are likely to exceed five milligrams per liter, the department may require additional treatment and groundwater monitoring.

(d) For systems proposing the use of a holding tank, other than marine sanitation devices or tanks wholly contained within a mobile food unit or occupied building, plans must include

(1) information justifying a holding tank is the most practicable and feasible wastewater system for the facility operations and site conditions;

(2) calculations for the size of the tank and the design flow for the facility providing a minimum of two days storage capacity, or greater if the department identifies it as necessary;

(3) specifications for the tank to be equipped with a visual beacon and audio high water alarm that will alert the users when pumping is required with

(A) the design drawings showing the levels when the alarm will activate and the location of the beacon;

(B) the manufacturer's cut sheet for the alarm;

(4) provisions for resisting buoyancy forces when the tank is pumped; and

(5) information on the accessibility of the tank for pumping, the availability of a pumper and hauler, and the location of the final disposal.

(e) For systems proposing the use of a surface water outfall, the submittal must include items as required by 18 AAC 72.275.

(f) To obtain an approval to operate an alternative wastewater system, the applicant shall submit to the department

(1) items required under 18 AAC 72.240; and

(2) a signed statement from the owner or operator of the system on a form provided by the department confirming they have received a copy of an operations and maintenance manual developed in accordance with manufacturer recommendations and the system will be operated and maintained in accordance with the manual.

(g) The department may require periodic testing, monitoring, and reports that demonstrate the system meets the expected performance criteria. (Eff. XX/XX/XXXX, Register XXX)

<b>Authority:</b>	AS 44.46.020	AS 46.03.020	AS 46.03.100
	AS 46.03.010	AS 46.03.050	AS 46.03.110

**18 AAC 72.620. Separation distance requirements.** (a) A person who installs,

modifies, or operates an alternative wastewater system shall ensure all existing and new components meet the minimum separation distances set out in (b) of this section and 18 AAC 72.100 for private water systems or obtain department approval for the lesser separation distance in accordance with 18 AAC 72.640. The person shall also ensure compliance with 18 AAC 80 for public water systems.

(b) The minimum separation distance between the mean annual high water level of a lake, river, stream, spring, or slough, or the mean higher high water level of coastal waters and a septic tank, primary treatment tank, treatment unit, package plant, soil absorption system, and land surface disposal area is 100 feet, measured horizontally from nearest edge to nearest edge.

(c) The department may require greater separation distances than that required by (a) or (b) of this section if the department determines the greater distance is necessary to protect surface water, groundwater, and private or public water systems. The department will base its decision on soil classifications, groundwater conditions, surface topography, geology, past experience, and other factors relevant to protection of surface water, groundwater, or drinking water. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.080  
AS 46.03.020 AS 46.03.070 AS 46.03.100

**18 AAC 72.630. Construction requirements for alternative wastewater systems. (a)**

All alternative wastewater systems installed, modified, or operated under 18 AAC 72.600 – 18 AAC 72.660 must meet the minimum construction requirements of this section unless a waiver of a provision is approved under 18 AAC 72.640.

(b) Design flow for the wastewater system must be calculated based on

- (1) 150 gallons per day for each bedroom in a residential dwelling; and

(2) typical daily flow rates for each unit of a specific type of facility publicly identified by the department as acceptable.

(c) Each component of an alternative onsite wastewater system, including all sewer lines, tanks, treatment units and absorption areas, must have the minimum freeze protection that meets the insulation requirements in Table 5 of this subsection;

<b>Table 5. INSULATION REQUIREMENTS*</b>	
<b>Geographical Area</b>	<b>Depth of Soil Cover or Insulation Equivalent**</b>
Southwest Alaska (Kodiak Island Borough and all areas southwest of Chignik, including Chignik)	2 feet of soil cover
Southeast Alaska (east of 141° West longitude), the coastal area south and east of Valdez between (to 141° West longitude), and the Valdez corporate boundary	3 feet of soil cover
All remaining areas of the state	4 feet of soil cover
<p>*Minimum depth of soil cover does not apply to treatment units or package plants designed by the manufacturer to be installed in arctic conditions with less soil cover.</p> <p>**For every one inch of insulation installed over a system component, the soil cover may be reduced by one foot.</p>	

(d) Private and community sewer lines must meet the material specifications publicly



identified by the department as acceptable, applicable plumbing codes, and

(1) gravity flow sewer lines must have a minimum nominal diameter of four inches and must be laid at a minimum two percent slope and a maximum 20 percent slope;

(2) the 10 feet immediately preceding a primary treatment tank, treatment unit, or package plant may not exceed a two percent slope;

(3) solid pipe without joints shall span any excavation onto undisturbed earth, or the soil must be backfilled and compacted in six inch lifts prior to laying the pipe;

(4) sewer lines must be connected to the inlet and outlet of any tank, treatment unit, or package plant in accordance with manufacturer specifications;

(5) all pipe to pipe joints must be glued with cement appropriate for the pipe material; and

(6) cleanouts must be constructed using a combo, wye, or long sweep wye fitting that has the same diameter of the sewer line to which it is attached and extended to at least one foot above the ground surface. A single cleanout must be installed with the sweep in the direction of flow, a double cleanout must be installed with the upstream sweep in the direction of flow and the downstream sweep against the flow. Cleanouts must be capped and installed

(A) within five feet of the outside wall of the building foundation;

(B) at intervals not to exceed 100 feet in continuous runs; and

(C) prior to each aggregate horizontal change in direction of 45 degrees or

more when the sewer line is located before primary treatment.

(e) An advanced treatment unit or package plant must be designed and installed according to manufacturer specifications, and documented

(1) to be currently certified by *NSF International Standards/American National Standard NSF/ANSI 40*; or

(2) as meeting or exceeding secondary treatment standards through a one year monitoring and sampling plan demonstrating the design has successfully treated wastewater under similar installations;

(f) Wastewater must meet minimum treatment requirements of 18 AAC 72.050 and be discharged to

(1) a conventional soil absorption system constructed in accordance with 18 AAC 72.530;

(2) an alternative soil absorption system constructed in accordance with a method publicly identified by the department as an approved best management practice;

(3) the land surface in accordance with a method that is publicly identified by the department as an approved best management practice; or

(4) an alternate method that has been presented to and approved by the department. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.100  
AS 46.03.020 AS 46.03.070

**Editor's note:** Methods publicly identified by the department as approved best management practices for alternative wastewater systems may be obtained at a department office or on the department's website.

**18 AAC 72.640. Waiver.** (a) If the Department determines that a waiver of a requirement of 18 AAC 72.601 – 18 AAC 72.660 will adequately protect public health, private water systems, and the environment, the department may waive or modify that requirement on a

site specific basis. The review of separation distance waivers to a public water system, or any components of one, will fall under the requirements of 18 AAC 80.

(b) A request to reduce the separation distance required by 18 AAC 72.100 or 18 AAC 72.620 must be submitted in a report that specifies each waiver being sought. The report must

- (1) be sealed by a registered engineer;
- (2) justify the lesser distance and explain how the lesser distance does not threaten public health, public and private water systems, or the environment;
- (3) describe soil classifications, groundwater conditions, surface topography, geology, and other environmental conditions that would assist the department in determining whether a lesser separation distance is protective; and
- (4) include a set of plans showing
  - (A) a site plan with the area's topography, groundwater flow direction, and the location of surface water, existing or potential sources of contamination, and existing or proposed public and private drinking water sources in the area; and
  - (B) details of the existing or proposed alternative onsite wastewater system construction that will mitigate potential contamination of the surface water, groundwater, and existing or proposed private drinking water sources;
- (5) if the separation distance reduction is to a private water system, provide information on the construction of the existing or proposed water system; and
- (6) other information the department determines to be necessary to assess the effect of a lesser separation distance upon public health, private water systems, and the environment.

(c) A request for a modification of the construction requirements for an alternative wastewater system must include a report that specifies each variation being sought. The report must

(1) be sealed by a registered engineer;

(2) justify the waiver or modification of the specific construction requirement based on site specific conditions relevant to the request; include calculations, engineered plans of system design, or other information that would assist the department in determining whether the waiver or modification requested will adversely impact the system performance and be protective of public health, public and private water systems, and the environment; and

(3) other information the department determines to be necessary to assess the effect of the waiver or modification requested.

(d) The department's decision under this section will be based on information submitted to justify the waiver or modification, the risk to public health, the environment, protection of surface water, groundwater, existing or proposed drinking water sources, and the impact on alternative wastewater system performance. As necessary, the department will require changes to the system design as a condition of approval.

(e) A request for a waiver or modification under this section must be accompanied by the fee required by 18 AAC 72.955. (Eff. XX/XX/XXXX, Register XXX)

<b>Authority:</b>	AS 44.46.020	AS 46.03.050	AS 46.03.720
	AS 44.46.025	AS 46.03.100	
	AS 46.03.020	AS 46.03.710	

**18 AAC 72.650. Notification and documentation requirements.** (a) A registered engineer who plans to install a system under 18 AAC 72.611(a) shall notify the department at

least one day prior to beginning construction or modification of the alternative onsite wastewater system. The notification must include

- (1) the legal description and physical address of the property where the installation or modification will occur, including directions to the site;
- (2) the name and telephone number of the engineer responsible for the system installation and documentation; and
- (3) the scheduled date of the installation or modification.

(b) If a registered engineer is unable to

- (1) provide the notice within the time required by (a) of this section for reasons beyond the control of the engineer, notification shall be given to the department as soon as possible and before beginning construction or modification; or

- (2) install or modify on the date noticed under (a) of this section, the engineer shall notify the department of the new scheduled date as soon as possible and before beginning construction or modification.

(c) Within 90 days after completing the installation or modification of an alternative wastewater system under 18 AAC 72.611(a), the registered engineer responsible for construction of the system shall submit to the department a completed registration package that includes

- (1) the registered engineer's seal, signature, and date on the department provided documentation of construction form;

- (2) record drawings including a scaled site plan, cross-sections, and details as needed to adequately document system construction and facilitate the department's review;

- (3) a signed statement from the owner or operator of the system on a form provided by the department certifying the owner or operator

(A) has received a copy of an operations and maintenance manual for the system that was developed in accordance with standard sanitary engineering practice and manufacturer recommendations and requirements; and

(B) will operate and maintain the system in accordance with the operations and maintenance manual;

(4) photographs that document the various states of installation or modification, including

(A) foundation cleanout(s) and sewer line(s);

(B) all treatment components and mechanical devices including pumps, alarms, and control panels as applicable;

(C) disposal system;

(D) finished grading and landscaping;

(E) effluent filters, insulation, or other specialty components, if installed;

and

(5) the documentation registration fee as required by 18 AAC 72.955.

(d) The department may conduct an inspection of an installation or modification. If the department conducts an inspection of an alternative wastewater system due to a complaint, an inspection fee may be charged in accordance with 18 AAC 72.945. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.100  
AS 44.46.025 AS 46.03.050

**18 AAC 72.660. After-the-fact registration.** If an alternative onsite wastewater system not requiring plan approval was not registered in accordance with 18 AAC 72.650(c), a

registered engineer may submit for the department's assessment an "after-the-fact" registration, or otherwise document a changed use or condition by

- (1) submitting the documentation registration fee required by 18 AAC 72.955;
- (2) submitting an adequacy report that is sealed by the registered engineer

responsible for performing the evaluation. The adequacy report must include

- (A) a description of the facility served including calculations for total design flow;
- (B) a description of methods and procedures used to verify that the system conforms to the requirements of 18 AAC 72.601 – 18 AAC 72.660 and ability of the system to accept the hydraulic and organic loads from the facility it serves;
- (C) information, as can be fairly determined or reasonably assumed, regarding
  - (i) all treatment components size, material, and functionality;
  - (ii) assessment of final disposal area;
  - (iii) site specific conditions including classification of soils typically encountered in the area or test hole log verifying soil conditions, depth to groundwater table, and general topography of the area;
- (D) results of laboratory analysis collected from various stages of treatment, as applicable, to demonstrate system performance;
- (E) site plan drawn to a standard engineering scale showing the developed features on the lot, the onsite wastewater system location based on visible features such as cleanouts and monitor tubes, the likely locations of subsurface components, and all nearby public and private wells and surface water; and

(3) if the system does not meet all separation distance requirements listed in 18 AAC 72.620 or construction requirements of 18 AAC 72.630, the report must be accompanied by a request for waiver in accordance with 18 AAC 72.640. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.070  
AS 44.46.025 AS 46.03.050 AS 46.03.100

**General Provisions are amended as follows:**

**Article 7. General Provisions**

- 900. General Permit
- 910. Procedures for general permit
- 920. Professional submittals
- 930. Reports
- 940. Emergency notice
- 945. Inspection fee
- 946. Inspection fee waiver
- 950. (Repealed)
- 954. Certified installer and approved homeowner fees**
- 955. Plan review fees
- 956. General permit fees
- 957. Individual permit fees
- 959. Hourly and negotiated fees
- 960. Appeals
- 961. Fee determination or computation appeals



990. Definitions **and abbreviations**

18 AAC 72.945 is amended to read:

**18 AAC 72.945. Inspection fee.** **The** [EXCEPT FOR A DOMESTIC WASTEWATER INSPECTION CONDUCTED UNDER 18 AAC 72.435, THE] owner or operator shall pay to the department a fee of \$43 per hour for an inspection under this chapter if the department performs that inspection. (Eff. 11/10/94, Register 132; 4/1/99, Register 149, am 1/17/2002, Register 161; am XX/XX/XXXX, Register XXX)

<b>Authority:</b>	AS 37.10.052	AS 46.03.050	AS 46.03.100
	AS 44.46.020	[AS 46.03.070]	AS 46.03.110
	AS 44.46.025	[AS 46.03.080]	[AS 46.03.720]
	AS 46.03.020	[AS 46.03.090]	

18 AAC 72 is amended to add a new section:

**18 AAC 72.954. Certified installer and approved homeowner fees.** (a) A person who seeks to be certified under 18 AAC 72.405 or recertified under 18 AAC 72.425 must pay to the department

- (1) a training fee of \$100 for a department provided or sponsored course; and
- (2) a certification fee of \$850.

(b) The certification fee under (a)(2) of this section may be paid in two annual installments of \$460 each. However, if the certified installer fails to pay the second installment when it is due, certification automatically expires on the date that payment is due without further notice from the department.

(c) A homeowner who seeks to be approved under 18 AAC 72.410 shall pay to the

department a training fee of \$275. (Eff. XX/XX/XXXX, Register XXX)

**Authority:** AS 37.10.052 AS 46.46.025 AS 46.03.050  
 AS 44.46.020 AS 46.03.020 AS 46.03.100

**Editor’s note:** Certified installer and approved homeowner fees were previously addressed under 18 AAC 72.440.

18 AAC 72.955(a) is amended to read:

(a) In order to obtain a plan review under **this chapter** [18 AAC 72.220 OR 18 AAC 72.600], or to obtain review of a stormwater pollution prevention plan submitted in accordance with a permit issued under 33 U.S.C. 1342(p) (Clean Water Act, sec. 402(p)) or **under** 18 AAC 83[.205], an applicant must pay the fees listed in Table C of the subsection with the submittal of the plans.

Table C is amended to read:

<b>Table C. PLAN REVIEW AND RELATED FEES<sup>1</sup></b>			
	[Fee (in dollars) on or before December 31, 2017]	[Fee (in dollars) not earlier than January 1, 2018 and not later than December 31, 2018]	Fee (in dollars) [on or after January 1, 2019]
(1) <b>Wastewater</b> [Domestic wastewater] system <b>plan review</b> with a daily peak capacity measurement,			

in gallons per day, of			
(A) 0 – 1,500	[405]	[530]	655
(B) 1,501 – 2,500	[540]	[790]	1,040
(C) 2,501 – 15,000	[1,095]	[1,535]	1,970
(D) 15,001 – 50,000	[1,800]	[2,560]	3,320
(E) 50,001 and over	[Hourly fee in accordance with 18 AAC 72.959]	[Hourly fee in accordance with 18 AAC 72.959]	Hourly fee in accordance with 18 AAC 72.959
(2) Waivers or modifications under 18 AAC 72.060 <sup>2</sup> , <b><u>18 AAC 72.540,</u></b> <b><u>and 18 AAC 72.640</u></b>	[295]	[295]	295
(3) Nondomestic wastewater systems for discharges that include stormwater runoff for engineering plans required by <b><u>this chapter</u></b> [18 AAC 72.600(a)] for projects			
(A) of less than one acre	[150]	[365]	580
(B) that are at least one acre but less than five acres	[450]	[785]	1,115
(C) that are at least five acres but less than 20 acres	[900]	[1,490]	2,080
(D) that are 20 acres or more	[1,500]	[2,065]	2,630
(4) Domestic and nondomestic sewer main extensions or replacements			
(A) up to 1,000 feet	[465]	[625]	785

(B) for each additional 1,000 feet or fraction of that amount, over the first 1,000 feet	[240]	[315]	385
(5) Registration fee for documentation of <b><u>conventional and alternative wastewater systems not requiring plan approval</u></b> [CONSTRUCTION FORMS]	[115]	[115]	115

Notes to Table C are amended to read:

<sup>2</sup>The fee is **not** applicable [ONLY] to **wastewater** [CONVENTIONAL ONSITE] systems submitted to the department under **18 AAC 72.200 – 18 AAC 72.290** [18 AAC 72.005 – 18 AAC 72.070]. The fee listed is for a waiver requested for a single prescribed standard [UNDER 18 AAC 72.005 – 18 AAC 72.070] (for instance, horizontal separation to surface water and horizontal separation to a water system are two separate standards). **The review of separation distance waivers to a public water system, or any components of one, will fall under the requirements of 18 AAC 80.** (Eff. 1/17/2002, Register 161; am 7/29/2006, Register 179; am 12/23/2009, Register 192; am 5/12/2016, Register 218; am 10/22/2016, Register 220; am XX/XX/XXXX, Register XXX)

Table D is repealed and readopted to remove columns with prior year fee increases:

<b>Table D. GENERAL PERMIT AUTHORIZATION FEES</b>	
	<b>Fee (in dollars)</b>

<b>(1) Annual fee for a domestic wastewater system covered under a general permit, with a daily maximum permitted flow, in gallons per day, of<sup>1</sup></b>	
(A) 0 – 1,500	665
(B) 1,501 – 15,000	765
(C) 15,001 – and over	1,280
<b>(2) One-time fee for a construction activity that consists of excavation dewatering</b>	950
<b>(3) Annual fee for fish hatcheries and aquaculture facilities</b>	1,715
<b>(4) Annual fee for seafood processing covered under a general permit</b>	1,715
<b>(5) Annual fee for log transfer facilities</b>	435
<b>(6) One-time fee for hydrostatic test water</b>	1,145
<b>(7) One-time fee for aquifer pump testing, in support of mineral mining development and exploration</b>	1,145
<b>(8) Annual fee for wastewater discharges from drinking water filter backwash</b>	1,635
<b>(9) Annual fee for cooling water general permit</b>	2,050
<b>(10) One-time fee for construction general permit (CGP) for stormwater runoff</b>	580
<b>(11) Annual fee for multi-sector general permit (MSGP) for stormwater</b>	735
<b>(12) Annual fee for mechanical placer mining with a mixing zone authorized under 18 AAC 70.240<sup>2</sup></b>	315
<b>(13) Annual fee for placer small suction general permit</b>	25
<b>(14) Annual fee for placer medium suction general permit</b>	90

<b>(15) Annual fee for mechanical placer mining without a mixing zone authorized under 18 AAC 72.240</b>	225
<b>(16) Annual fee for placer Norton Sound general permit</b>	715
<b>(17) Annual fee for each general permit authorization for oil and gas exploration and development</b>	
(A) North Slope oil and gas general permit	700
(B) Cook Inlet oil and gas general permit	3,600
(C) Arctic oil and gas general permit	2,370
(D) Underground Injection Control Class I well general permit	950
<b>(18) Annual fee for arctic geotechnical general permit</b>	4,575

Notes to Table D:

<sup>1</sup>If the applicant is a business with fewer than 20 employees, the fee is reduced by a travel cost of \$85.

<sup>2</sup>If the applicant is a business with fewer than 20 employees, the fee is reduced by a travel cost of \$25.

Table E is repealed and readopted to remove columns with prior year fee increases:

<b>Table E. INDIVIDUAL PERMIT FEES<sup>1</sup></b>	
	<b>Fee (in dollars)</b>
<b>(1) Annual fee for a domestic wastewater system covered under a general permit, with a daily maximum permitted flow, in gallons per day, of</b>	
(A) 0 – 100,000	655

(B) 100,001 – and over	7,920
<b>(2) Annual fee for power generation cooling water discharge by a facility</b>	6,520
<b>(3) Annual fee for seafood processing that is not covered under the general permit</b>	7,040
<b>(4) One-time fee for seafood processor modifications within the same year</b>	325
<b>(5) One-time application fee for certification under 33 U.S.C. 1341 of a “dredge-or-fill” permit issued under 33 U.S.C. 1344 (Clean Water Act, sec. 404), for<sup>2</sup></b>	
(A) Airport project	320
(B) Other projects of department activities as follows:	
(i) waiver of certification under 33 U.S.C. 1341	130
(ii) project disturbing less than one acre	600
(iii) project disturbing 1 – 5 acres	765
(iv) project disturbing 5.01 to 20 acres	1,160
(v) project disturbing greater than 20 acres	2,375
<b>(6) Annual fee for harbor dredge projects</b>	1,080
<b>(7) Annual fee for individual permit for a municipal separate storm sewer system (MS4)</b>	9,115
<b>(8) Annual fee for bulk fuel and small oil terminals with only a few low-volume discharges</b>	6,490

Notes to Table E:

<sup>1</sup>If the applicant is a business with fewer than 20 employees, the fee is reduced by a travel cost of \$85.

<sup>2</sup>Mine projects and pipelines eight inches or greater in diameter are subjected to a fee as described in 18 AAC 72.959.

18 AAC 72.956(e) is amended to read:

(e) For any annual fee received more than 30 days after issuance of the billing, a late fee of \$20 **may be** [is] charged for each month that the payment is late.

18 AAC 72.990 is repealed and readopted to read:

**18 AAC 72.990. Definitions and abbreviations.** Unless the context indicates otherwise, in this chapter

(1) "5-wide" means a conventional soil absorption system that is five feet wide, contains one line of distribution piping, and has at least 18 inches but not more than four feet of distribution medium, and is designed with the absorption area calculated using the bottom area and sidewalls;

(2) "above-ground storage tank" means a tank system with 100 percent of its volume above ground;

(3) "absorption field" means the portion of a soil absorption system, excluding sand liners, that contains the distribution medium;

(4) "alternative onsite wastewater system" means a method of wastewater storage, treatment, and disposal other than a conventional wastewater system that

(A) receives only domestic wastewater;

(B) is located wholly on property owned by a single individual or entity

who also has ownership of the dwellings, buildings, or structures it serves; and



(C) does not discharge to surface water;

(5) "alternative soil absorption system" means a method of soil absorption treatment and disposal other than a conventional soil absorption system; "alternative soil absorption system" includes any system utilizing soil located above original grade for treatment; "alternate soil absorption system" does not include nonwater-carried disposal methods such as composting, incineration, or pit privies;

(6) "alternative wastewater system" means a method of treatment and disposal other than a conventional wastewater system; "alternative wastewater system" may include advanced treatment units, package plants, holding tanks, or other methods of storage and treatment; "alternative wastewater system" may include a final disposal system not located on property owned or operated by the same individual or entity;

(7) "approved" and "approval" mean approved by, or the approval of, the department by means of written letter, electronic mail, or facsimile transmission;

(8) "bed" or "bed system" means a conventional soil absorption system that is a level excavation, wider than five feet, that contains at least two lines of distribution piping, and is designed with the absorption area calculated using the bottom area only;

(9) "biochemical oxygen demand" means the amount, in milligrams per liter, of oxygen used in the biochemical oxidation of organic matter in five days at 20° C;

(10) "cesspool" means a subsurface pit that receives untreated sewage;

(11) "cleanout" means an appurtenance on a sewer line designed to provide access for the purpose of removing deposited or accumulated materials;

(12) "collection and pumping system" or "collection system" means a system of pumps, conduits, or both that transports wastewater from the facility where it is generated to a wastewater treatment works; "collection and pumping system" or "collection system"

(A) includes

(i) gravity, pressure, and vacuum sewer lines, including associated appurtenances such as manholes and cleanouts;

(ii) pump or collection stations; and

(iii) a sewer main, regardless of ownership of the land on which it is installed; and

(B) does not include a sewer service line or private sewer line;

(13) "commissioner" means the commissioner of the Department of Environmental Conservation or the commissioner's designee;

(14) "community sewer line" means that portion of a collection system serving two or more

(A) private residences;

(B) mobile homes, trailer park spaces, or recreational vehicle connection points;

(C) buildings not associated with a private residence; or

(D) any combination of two or more of the structures listed in A – C;

(15) "construction observation" or "observing construction" means visual observation of or visually observing the quality of construction, and the equipment and materials used for construction such that the observing engineer, or a person under their responsible charge, has the information necessary to provide a professional opinion regarding the system's conformance to approved construction documents, AS 46.03, and this chapter;

(16) "construction supervision" or "supervising construction" means providing oversight and direction during construction such that the supervising engineer, or a person under their responsible charge, can validate the system was constructed in accordance with the requirements of this chapter, conforms to department published best management practices, and has the information necessary to prepare accurate record documents;

(17) "conventional onsite wastewater system" means a conventional wastewater system that

(A) receives only domestic wastewater; and

(B) is located wholly on property owned by the person(s) or entity who also has ownership of the dwellings, buildings, and structures it serves;

(18) "conventional soil absorption system" means a wastewater treatment and disposal system that

(A) receives wastewater that, at a minimum, has received primary treatment;

(B) is of a typical 5-wide, shallow trench, deep trench, bed, or seepage pit design;

(C) uses natural subsurface undisturbed soils, with or without a sand liner, for treatment above a limiting condition;

(D) utilizes pressurized or non-pressurized distribution pipe; and

(E) has all distribution medium located below original grade for absorption fields using sidewalls for the infiltrative surface; or

(F) has the bottom of the distribution medium below original grade for absorption fields using the bottom area only for the infiltrative surface;

(19) "conventional wastewater system" means a wastewater treatment and disposal system that uses a septic tank followed by disposal into a conventional soil absorption system; "conventional wastewater system" may include pumps and lift stations;

(20) "daily peak capacity" means the maximum daily flow of wastewater measured in gpd, that a treatment system is designed to process;

(21) "deep trench" means a conventional soil absorption system that is at least four feet deep but not more than twelve feet deep and is at least 12 inches wide with one line of distribution piping, and is designed with the absorption area calculated based on the area of the two vertical sidewalls along the length of the trench;

(22) "department" means the Department of Environmental Conservation;

(23) "design criteria" means information and numerical data such as flow rates, organic and hydraulic loading rates, and other parameters upon which a specific facility design is based; "design criteria" includes

(A) engineering guidelines that specify construction details and materials;

and

(B) objectives, results, or limits that a facility, structure, or process must meet in the performance of its intended function;

(24) "director" means the director of the department's division assigned to water;

(25) "disinfect" means to treat by means of a chemical, physical, or other process, such as chlorination, ozonation, application of ultraviolet light, or sterilization, designed to reduce or 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 milliliters; and

(B) an arithmetic mean of the values for effluent samples collected in seven consecutive days that does not exceed 400 fecal coliform per 100 milliliters;

(26) "disposal sewer" means a pipeline or conduit that transports wastewater from a treatment works, providing at least primary treatment, to a disposal system;

(27) "disposal system" means a system that provides a method of final disposal of wastewater to the environment;

(28) "distribution media" or "distribution medium" means the material used to provide void space in a soil absorption system, through which effluent flows and is stored prior to infiltration into the surrounding soils; "distribution media" includes sewer rock, polystyrene beads, chambers, and gravelless pipe;

(29) "distribution pipe" means perforated pipe, tubing, or other conveyance used to distribute effluent from a pretreatment process to the distribution medium within a soil absorption system;

(30) "distribution tank" means a manufactured tank with equal sized and spaced perforations used to distribute effluent from a pretreatment process to the distribution medium in a seepage pit;

(31) "domestic wastewater" means waterborne human wastes or graywater derived from dwellings, commercial buildings, institutions, or similar structures; "domestic wastewater" includes the contents of individual removable containers used to collect and temporarily store human wastes; "domestic wastewater" does not include

(A) liquid or solid material removed from a septic tank, cesspool, or similar treatment works if those facilities receive nondomestic wastewater; or

(B) grease removed from a grease trap at a restaurant.

(32) "domestic wastewater disposal system" means a device, structure, or formation used to dilute, dispose, or discharge domestic wastewater; "domestic wastewater disposal system" includes injection wells, soil absorption systems, pits, crevices, sinkholes, depressions, outfalls, percolating stabilization ponds, land irrigation systems, sewers, and treatment works;

(33) "domestic wastewater treatment works" means a plant, device, structure, or other works designed to treat, neutralize, or stabilize domestic wastewater or sludges; "domestic wastewater treatment works" includes a septic tank, package plant, stabilization pond, soil absorption system, activated sludge treatment plant, trickling filter, rotating biological contactor plant, and membrane biological reactor;

(34) "drain" means the lowest line in or beneath a building and that receives and carries the sewage to the sewer service line or private sewer line; however, a line that also serves separate private residences or other separate buildings and structures, even if it runs beneath a building, is still considered to be a sewer main or community sewer line;

(35) "duplex" means a single structure designed to house two single-family dwelling units;

(36) "emergency" means an unforeseen event that causes damage to or disrupts normal operations of a wastewater collection, storage, treatment, or disposal system that requires immediate action for the system to perform the major functions for which it was designed, and to protect public health and the environment;

(37) "engineering plans" means a set of plans, prepared for construction, signed, sealed, and dated by an engineer registered in the State of Alaska;

(38) "EPA" means the United States Environmental Protection Agency;

(39) "equalize" means to dampen daily fluctuations of the flow, quality, or amount of wastewater, in order to distribute surges over a period of time;

(40) "facility" means a building or structure, or multiple buildings and structures operated as a single institution, business, or entity;

(41) "force main" means a pressurized sewer main through which sewage is pumped;

(42) "geotechnical study" means a report or study analyzing sufficient subsurface information necessary to evaluate the effect of permafrost degradation on the structural integrity and operational performance of the proposed wastewater system;

(43) "gpd" means gallons per day;

(44) "graywater" means wastewater that

(A) is from a laundry, kitchen, sink, shower, bath, or other domestic source; and

(B) does not contain excrement, urine, or stormwater;

(45) "groundwater" means the subsurface water permanently or seasonally occupying the zone in which the voids in the rock or soil are filled with water at a pressure equal to or greater than atmospheric;

(46) "holding tank" means a watertight vessel or tank for the temporary storage of wastewater, urine, and/or excrement; "holding tank" includes a vault privy; "holding tank" does not include a pit privy;

(47) "hydroelectric project" means a project that generates electricity by converting the energy of running water;

(48) "impermeable strata" means bedrock, clay or other soil strata with a percolation rate slower than 120 minutes per inch;

(49) "land surface disposal system" means a system that disposes of treated wastewater onto the surface of the land in areas suitable for that purpose; does not include the land application of sewage solids or biosolids for an agricultural purpose regulated under 18 AAC 60;

(50) "limiting condition" means soil or site characteristic that reduces efficacy of soil treatment and thus restricts design options for a system; "limiting condition" includes seasonal high water table, bedrock, permafrost, and other impermeable or unsuitable soil strata.

(51) "marine outfall" means a discharge pipe used for the final disposal of wastewater extending from a wastewater treatment works to the point of discharge in marine waters, including equipment or appurtenances used for diffusing treated effluent to the marine environment;

(52) "modify" means to alter, renovate, improve, or replace system components;



(53) "multi-family dwelling" means a single structure housing more than two single-family units;

(54) "nondomestic wastewater" means liquid or water-carried wastes other than domestic wastewater; "nondomestic wastewater" includes wastes resulting from

- (A) a manufacturing, food processing, or production enterprise;
- (B) an industrial establishment;
- (C) the development of natural resources;
- (D) the construction of a manufacturing, production, or industrial facility;

and

- (E) stormwater runoff;

(55) "nondomestic wastewater disposal system" means a device or structure designed to dilute, dispose, or discharge nondomestic wastewater;

(56) "nondomestic wastewater treatment works" means a plant, device, structure, or other works designed to treat, neutralize, or stabilize nondomestic wastewater or sludges;

(57) "nonpercolating stabilization pond" means a stabilization pond that

- (A) is designed to contain wastewater; and
- (B) prevents subsurface leakage at a rate greater than 500 gallons per acre per day at a water depth of six feet;

(58) "observed percolation rate" means the rate at which water will pass through a soil as measured by a person certified under 18 AAC 72.405 or a registered engineer during a percolation test conducted in accordance with standard engineering practice;

(59) "observed soil texture" and "observed soil type" mean the soil texture or soil type as observed by a person certified under 18 AAC 72.405 or a registered engineer;

(60) "observing construction" means construction observation;

(61) "package plant" means an alternate wastewater system that is a transportable modular treatment unit for domestic wastewater; "package plant" does not include septic or holding tanks;

(62) "percolating stabilization pond" means a stabilization pond designed to contain wastewater and to allow subsurface leakage at a rate greater than 500 gallons per acre per day at a water depth of six feet;

(63) "pit privy"

(A) means a subsurface excavation that

(i) receives urine and excrement that is not waterborne; and

(ii) is the final disposal site and not a temporary storage facility;

and

(B) does not include a vault privy;

(64) "point source" has the meaning given in 18 AAC 83.990;

(65) "potable water system" has the meaning given in 18 AAC 80.1990;

(66) "primary treatment" means wastewater treatment that

(A) will subsequently discharge wastewater to land or waters that are not waters of the United States and

(i) removes substantially all floating and settleable solids; or

(ii) uses fine screens with 0.04-inch or smaller openings; or

(B) will subsequently discharge wastewater to waters of the United States

and uses

(i) screening, sedimentation, and skimming adequate to remove at least 30 percent of the biochemical oxygen demanding material and of the suspended solids in the treatment works influent; and

(ii) disinfection, where appropriate;

(67) "private residence"

(A) means a single residential lot that is developed as a primary habitation for not more than two families and has a total maximum design flow of not more than 1,500 gpd of domestic wastewater;

(B) may include one or more support buildings used only by the residents of the property including a workshop, home office, greenhouse, or garage;

(C) does not include a commercial development open to the public or that produces a product available for human consumption;

(68) "private sewer line" means a pipeline or conduit carrying wastewater from a service connection to a community sewer line or treatment works;

(69) "private water line" has the meaning given in 18 AAC 80.1990;

(70) "private water system" has the meaning given in 18 AAC 80.1990;

(71) "public water system" has the meaning given in 18 AAC 80.1990;

(72) "publicly owned treatment works" has the meaning given in 18 AAC 83.990.

(73) "record documents" includes record drawings, specifications, construction submittals, photographs, diaries, daily reports, and test reports;

(74) "record drawings" means the engineering plans prepared for construction and revised to reflect how the system was constructed or installed;

(75) "registered engineer" means a professional engineer registered to practice in this state under AS 08.48;

(76) "residential dwelling" means a building or part of a structure used as a primary residence;

(77) "routine maintenance" means activity normally required to maintain the system components in good working order; "routine maintenance" includes the replacement of 40 feet or less of pipe, a valve, a pump, or other minor components with a similar component that does not affect the system's configuration, material, treatment, or capacity; "routine maintenance" does not include replacement of major system components such as a soil absorption system;

(78) "sealed" means prepared by a registered engineer or a person under that engineer's direct supervision, and bearing the signature and seal of that engineer as required by AS 08.48.221 and 12 AAC 36.185;

(79) "secondary treatment" means a method of removal of dissolved and colloidal materials that produces an effluent with the following characteristics:

(A) for the five-day measure of biochemical oxygen demand from a source other than a stabilization pond,

(i) an arithmetic mean of the values for effluent samples collected in 30 consecutive days that does not exceed 30 milligrams per liter;

(ii) an arithmetic mean of the values for effluent samples collected in seven consecutive days that does not exceed 45 milligrams per liter; and

(iii) an arithmetic mean of the values for effluent samples collected in a 24-hour period that does not exceed 60 milligrams per liter;

(B) for the five-day measure of biochemical oxygen demand at a stabilization pond,

(i) an arithmetic mean of the values for effluent samples collected in 30 consecutive days that does not exceed 45 milligrams per liter and a percent removal that is not less than 65 percent by weight; and

(ii) an arithmetic mean of the values for effluent samples collected in seven consecutive days that does not exceed 65 milligrams per liter;

(A) for the measure of suspended solids from a source other than a stabilization pond,

(i) an arithmetic mean of the values for effluent samples collected in 30 consecutive days that does not exceed 30 milligrams per liter;

(ii) an arithmetic mean of the values for effluent samples collected in seven consecutive days that does not exceed 45 milligrams per liter; and

(iii) an arithmetic mean of the values for effluent samples collected in a 24-hour period that does not exceed 60 milligrams per liter; and

(B) for the measure of suspended solids at a stabilization pond, an arithmetic mean of the values for effluent samples collected in 30 consecutive days that does not exceed 70 milligrams per liter; and

(C) for the measure of effluent pH, between 6.0 and 9.0 unless

(i) inorganic chemicals are not added to the waste stream as part of the treatment process; and

(ii) contributions from industrial sources do not cause the pH of the effluent to be less than 6.0 or greater than 9.0;

(80) "seepage pit" means a conventional soil absorption system that uses a perforated tank to distribute septic tank effluent to a distribution medium of clean sewer rock, with the absorption area calculated based on the area of the side walls only;

(81) "sensitive receiving environment" means

- (A) fresh or marine water that supports anadromous fish;
- (B) fresh or marine water used for drinking or food processing;
- (C) water susceptible to eutrophication;
- (D) a stream with low or intermittent flow;
- (E) tundra; or
- (F) land that permits exposure of wastewater to the public;

(82) "septage" means liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar domestic wastewater treatment or storage system that receives only domestic wastewater;

(83) "septic tank" means a watertight, covered receptacle designed and built to

- (A) treat sewage;
- (B) separate floating and settleable 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 additional treatment and final

disposal;

(84) "service connection" means a private residence or a single building not associated with a private residence; "service connection" includes a single structure designed to accept or collect sewage for conveyance through a sewer service line;

(85) "sewage" means domestic or nondomestic wastewater;

(86) "sewer" or "sewer line" means a pipeline, conduit, or other constructed conveyance that carries domestic or nondomestic wastewater; "sewer line" does not include a private sewer line or sewer service line;

(87) "sewer main" means a sewer line used as a common receiver of sewage from more than one sewer service line and carries wastewater to a treatment works;

(88) "sewer service line" means a pipeline or conduit that services a single service connection and carries sewage to a sewer main;

(89) "sewerage" means sewer lines, sewage pumping stations, force mains, and related structures, devices, and appliances used to carry domestic or nondomestic wastewater to a point of final treatment or disposal;

(90) "shallow trench" means a conventional soil absorption system that does not exceed five feet in width, contains a single distribution pipe, and is designed with the absorption area calculated using the bottom area only;

(91) "slough" means a swamp, bog, or marsh, especially one that is part of an inlet or backwater;

(92) "sludge" means a solid, semisolid, or liquid waste that contains at least five percent solids by weight, and that is generated at a municipal, commercial, or industrial wastewater treatment plant, a septic tank, a water supply treatment plant, or an air pollution control facility; "sludge" includes similar material accumulated in and removed from a collection system, storage tank, or surface impoundment containing grit, sediment, oil, industrial liquid waste, acid, chemicals, or another similar substance;

(93) "small commercial facility" means a single commercial, institutional, or industrial building with an expected peak design flow of 500 gpd or less of domestic wastewater only; "small commercial facility" does not include a building or portion of a building that contains a residential dwelling;

(94) "soil absorption system" means a constructed system using soil for the treatment and disposal of effluent from a treatment process; "soil absorption system" may treat and dispose of domestic or nondomestic wastewater; "soil absorption system" does not include a cesspool;

(95) "springline" means the line of greatest horizontal dimension of the end cross-section of a pipe, the horizontal centerline of the pipe;

(96) "stabilization pond" means a shallow body of liquid or sludge contained in an earthen basin and designed to treat wastewater or septage sludge;

(97) "standard designated regulatory services" has the meaning given in AS 37.10.058;

(98) "stormwater" has the meaning given in 18 AAC 83.990

(99) "stormwater pollution prevention plan" means a facility's plan to prevent or control the discharge of pollutants in stormwater runoff, as required by a permit required under 33 U.S.C. 1342(p) (Clean Water Act, Sec. 402(p)) and 18 AAC 83.990;

(100) "supervising construction" means construction supervision;

(101) "toxic substance" has the meaning given in 18 AAC 70.990.

(102) "treatment works" means the central portion of a wastewater system that contains the various treatment processes, exclusive of the collection system;



(103) "treatment works with individual marine outfall" means a treatment system located on one lot, or shared by adjacent lots, from which treated wastewater is discharged through a single outfall extending to marine waters; "treatment works with individual marine outfall" may include multiple treatment works located on separate lots and owned by separate entities that discharge to a common collector that extends to marine waters;

(104) "vacuum sewer" means a collection system using a vacuum and high scour velocities to convey wastewater;

(105) "vault privy" means a holding tank with a seat or seats, or other appurtenances attached, that allows for excretion of human wastes directly into the tank;

(106) "wastewater" means domestic or nondomestic wastewater;

(107) "wastewater utility" has the meaning given in 3 AAC 52.749;

(108) "water table" means the upper surface of a zone of saturated soil, including normal seasonal fluctuations, but excluding fluctuations caused by heavy rainfall or rapid snow-melt; the water table is indicated by the level at which water stands in a well that

(A) is open along its length; and

(B) penetrates the surficial deposits just deeply enough to encounter standing water in the bottom.

(109) "waters of the United States" has the meaning given in 18 AAC 83.990.

(110) "wetlands" has the meaning given in 18 AAC 83.990. (Eff. 4/1/99, Register 149; am 3/25/2001, Register 157; am 1/17/2002, Register 161; am 7/29/2006, Register 179; am 5/12/2016, Register 218; am XX/XX/XX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.070 AS 46.03.110  
AS 46.03.020 AS 46.03.100 AS 46.03.710

AS 46.03.050

**Editor's Note:** Statutory definitions that apply to this chapter are found at AS 46.03.900.

**18 AAC 60.040(b) is amended to read:**

(b) A person **shall** [MAY NOT] dispose of septage, sewage solids, fish waste, animal manure, **and** [OR] animal byproducts or waste **in accordance with the minimum separation distances in 18 AAC 80 for public water systems and in 18 AAC 72 for private water systems** [ON THE GROUND WITHIN 100 FEET OF A WELL THAT PRODUCES WATER SUITABLE FOR DRINKING]. (Eff. 10/29/98, Register 148; am XX/XX/XX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.020 AS 46.03.800  
 AS 46.03.010

**18 AAC 80.020 is amended as follows:**

Table A is amended to read:

TABLE A. Minimum Separation Distances <sup>a</sup> Between Drinking Water Sources and Potential Sources of Contamination (Measured horizontally in feet)	
Potential Sources of Contamination	Community Water Systems, Non-transient Non-Community Water Systems, and Transient Non-Community Water Systems
Wastewater treatment works <sup>b</sup> , wastewater disposal system <sup>b</sup> , pit privy <sup>b</sup> , sewer manhole,	200

lift station, <b><u>sewer line and sewer line</u></b> cleanout	
Community sewer line, <b><u>sewer main</u></b> , <b><u>disposal sewer, wastewater</u></b> holding tank <sup>b</sup> , other potential sources of contamination <sup>c</sup>	200
Private sewer line, <b><u>sewer service line</u></b> , <b><u>drain (below-ground)</u></b> , petroleum lines and storage tanks <sup>d</sup> , drinking water treatment waste <sup>e</sup>	100
Notes to Table A:  <sup>a</sup> These minimum distances will be expanded, or addition monitoring will be required under 18 AAC 80.020(b) and (e)(2).  <sup>b</sup> Distance to drinking water source is measured from the nearest edge of the drinking water source to the nearest edge of the potential source of contamination.  <sup>c</sup> Other potential sources of contamination include sanitary landfills, domestic animal and agricultural waste[, AND INDUSTRIAL DISCHARGE LINES].  <sup>d</sup> The minimum separation distances for petroleum storage tanks do not apply to tanks that contain propane, or to above-ground storage tanks or drums that, in the aggregate, have a storage capacity of less than 500 gallons of petroleum products, and that store only petroleum products necessary for the operation and maintenance of pumps, power generation systems, or heating systems associated with a potable water source.  <sup>e</sup> Drinking water treatment wastes include the backwash water from filters and water	

softeners, and the reject water from reverse osmosis units.

(Eff. 10/1/99, Register 151; am 8/19/2006, Register 179; am 7/25/2010, Register 195; am 11/11/2010, Register 196; am 2/11/2017, Register 221; am 5/3/2019, Register 230; am XX/XX/XX, Register XXX)

**Authority:** AS 44.46.020 AS 46.03.050 AS 46.03.720  
AS 46.03.020 AS 46.03.710

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