Subchapter 8 – General Technical Standards for Wastewater Systems and Potable Water Supplies

§ 1-801 Basic Requirements

(a) All buildings or structures or campgrounds shall have a wastewater system that complies with the technical standards in this Subchapter and Subchapters 9 and 10 except as provided in § 1-301(b), § 1-802, or an approval for an innovative/alternative system or component.

(1) Except as provided in Subsection (a)(2), the wastewater system shall be physically connected to the building or structure it serves.

(2) The wastewater system serving a building or structure may be a wastewater system that is not physically connected to the building or structure provided the wastewater system is physically connected to a separate building or structure and the buildings or structures are on the same lot and not more than 500 feet apart.

(b) A wastewater system shall be maintained to ensure that the components of the wastewater system meet the technical standards in this Subchapter and Subchapters 9 and 10 and do not operate improperly.

(c) All buildings or structures or campgrounds shall have a potable water supply that complies with the technical standards in this Subchapter and Subchapters 11 and 12 except as provided in § 1-301(b), § 1-802, or an approval for an innovative/alternative system or component.

(1) Except as provided in Subsection (c)(2), the potable water supply shall be physically connected to the building or structure it serves.

(2) The potable water supply serving a building or structure may be a potable water supply that is not physically connected to the building or structure provided the potable water supply is physically connected to a separate building or structure and the buildings or structures are on the same lot and not more than 500 feet apart.

(d) A potable water supply shall be maintained to ensure that the components of the potable water supply meet the technical standards in this Subchapter and Subchapters 11 and 12 and do not operate improperly.

(e) All dependent campsites in a campground shall be within 400 feet of a toilet facility. The toilet facility may consist of water carried toilets, vault privies, composting toilets, or incinerating toilets.

(f) There shall be at least 1 toilet to serve each group of 10 or fewer dependent campsites in a campground.

(g) Each component of a wastewater system shall be sized to convey, treat, or dispose of the design flow associated with the component and identified in § 1-803.

(h) Each component of a potable water supply shall be sized to supply or convey the design flow associated with the component and identified in § 1-803.

(i) A water faucet shall be provided within 400 feet of any dependent campsite in a campground. Common drinking vessels at faucets are prohibited.

(j) At least one dumping station shall be provided per campground unless:
- (1) all campsites have individual sanitary sewer service lines; or
- (2) the campground consists entirely of tent sites and the campground prohibits the use of camping units with interior plumbing.

(k) Each dumping station in a campground shall:
- (1) serve no more than 100 dependent campsites;
- (2) be designed with a concrete apron that slopes to the sanitary sewer service line inlet; and
- (3) be supplied with piped water under pressure for flushing and cleaning of the concrete apron after each use.

§ 1-802 Variances

(a) An application for a permit or permit amendment may include a request, prepared by a designer, for a variance from one or more technical standards in this Subchapter and Subchapters 9, 10, 11, and 12 if the application meets one of the following:
- (1) involves the construction of a replacement system or replacement supply and the variance is sought for the replacement system or replacement supply, provided the replacement system is not proposed in lieu of a replacement area and in the same application as the wastewater system it would replace;
- (2) involves the change in use of a single-family residence from seasonal to year-round use and the variance is sought for the wastewater system or potable water supply proposed to serve the single-family residence, provided no holding tank is proposed as part of the wastewater system;
- (3) involves the subdivision of an improved lot, and, if desired, the construction of a replacement system in lieu of a replacement area, and the variance is sought for the replacement area or replacement system, provided the lot is improved with, and the replacement area or replacement system is proposed to serve, either:
  - (A) up to two single-family residences or one duplex; or
  - (B) up to two buildings or structures, two campgrounds, or one building or structure and one campground, where the total design flow for the uses is 560 gallons per day or less.

(b) Variances are not available in circumstances other than those identified in Subsection (a).

(c) Notwithstanding Subsection (a), a variance from a technical standard in these Rules shall not be granted when an increase in design flow is sought for the wastewater system or potable water supply.

(d) An application that includes a request for a variance shall identify the specific provision and technical standard in these Rules for which the applicant is requesting a variance, identify the alternative design standard requested, and contain the site plan, detail sheets, narrative, or data that supports the grant of such a variance pursuant to the standard identified in Subsection (e) or (f).

(1) The burden shall be on the person requesting the variance to provide information that would enable the Secretary to reach each conclusion identified in Subsection (e) or (f).

(2) The Secretary may request additional information that he or she deems necessary to determine whether to grant a variance pursuant to Subsection (e) or (f).

(e) The Secretary shall grant a variance from a technical standard in these Rules only when the Secretary reaches each of the following conclusions:

(1) Full compliance with the technical standard cannot be achieved.

(2) The variance is the minimum necessary considering both cost and the potential impacts on human health and the environment. In reaching this determination, the Secretary shall presume that the following designs are the minimum necessary considering the cost and impacts on human health and the environment:

(A) For the design of a soil-based wastewater system, when it is determined that a reduction of no more than 4 inches in the depths of naturally occurring soil required pursuant to § 1-903 is not needed to protect the water table, a variance from one or more technical standards in § 1-903 is available and the following variances are available:

(i) Variances from the requirement for a pump station and that allow the development of an in-ground leachfield.

(ii) Variances that allow an in-ground leachfield instead of a pump station and an at-grade leachfield.

(iii) Variances that allow an at-grade leachfield instead of a leachfield in a mound or bottomless sand filter.

(B) For the design of a potable water supply, when a proposed groundwater potable water source cannot meet the isolation required pursuant to § 1-1104(e) from an existing leachfield or septic tank, and the proposed potable water source is designed to include casing that exceeds the casing required pursuant to § 1-1206 or to include grouting of any annular space of the proposed potable water source, a variance from § 1-1104(e) for isolation from the existing leachfield or septic tank is available.

(3) The variance will not allow the wastewater system or potable water supply to function as a failed supply or failed system.

(4) If sought for a replacement system or replacement supply, the replacement system or replacement supply will provide equal to or better protection to human health or the environment than the wastewater system or potable water supply it is replacing. In reaching this determination the Secretary shall consider, among other factors, if the replacement system or replacement supply will provide equal or better protection of the groundwater, will provide equal or better protection of surface water, and will provide equal or better protection for potable water sources and public water sources.

(f) Notwithstanding Subsection (e):

(1) When a variance is sought for a replacement system or replacement supply that will replace a wastewater system or potable water supply exempt from the permitting requirements of this Subchapter under § 1-303, the conclusion in Subsection (e)(1) is not applicable, and the Secretary shall grant a variance from a technical standard in these Rules when the Secretary reaches the conclusions in Subsection (e)(2), (3), and (4).

(2) When a variance is sought in the circumstance identified in Subsection (a)(3), the conclusion in Subsection (e)(1) is not applicable, and the Secretary shall grant a variance from a technical standard in these Rules when the Secretary reaches the conclusions in Subsection (e)(2), (3), and (4) and concludes that full compliance with the technical standard cannot be achieved within 500 feet of each building or structure or campground proposed to be served by the replacement area or replacement system.

(g) The grant of a variance by the Secretary shall be in writing in the permit for the wastewater system or potable water supply for which the variance was requested by identifying that the permit includes the grant of a variance and by identifying both the technical standard for which the variance is granted and the design modification or alternative design standard approved.

(h) The grant of a variance shall not relieve the applicant of the responsibility to comply with all other provisions of these Rules and applicable State and local laws.

§ 1-803 Design Flows

(a) For the purposes of this Section, the term "employee," when associated with a non-residential use of a residence, does not include employees residing in the residence whose water usage is included as part of a residential use.

(b) For the purposes of this Section, the term "meal" means any food service that includes more than coffee, tea, water, other beverages, and pre-packaged food. Meals include any food service that the Vermont Department of Health determines to be a meal or requires a Health License to be prepared on the premises.

(c) The design flow for individual components of a wastewater system and potable water supply, and the design flow for a replacement area, that will serve a single-family residence on a lot with no other buildings or structures and with no campground, shall be calculated based on a minimum of 2 bedrooms, regardless of whether the residence will contain only one bedroom.

(d) The design flow for individual components of a wastewater system and a potable water supply, and the design flow for a replacement area, that will serve buildings or structures with a residential use shall be calculated using one of the following methods for the total living units served:

(1) The design flow of 70 gallons per day per person at the maximum residential occupancy proposed for each living unit, provided the resulting design flow is not

less than the design flow calculated using the following minimum design standards:

(A) a living unit contains at least 1 bedroom, except as provided in Subsection (c);

(B) the first 3 bedrooms in a living unit contain a minimum occupancy of 2 persons per bedroom; and

(C) each additional bedroom beyond 3 contains a minimum occupancy of 1 person per bedroom.

(2) The design flow specified in Table 8-1.

(e) The design flow for individual components of a wastewater system and potable water supply, and the design flow for a replacement area, that will serve campgrounds shall be calculated using the design flow specified in Table 8-2.

(f) The design flow for individual components of a wastewater system and potable water supply, and the design flow for a replacement area, that will serve buildings or structures with a non-residential use shall be calculated using one of the following methods:

(1) The design flow specified in Table 8-3 for the maximum quantity of each unit proposed.

(2) A Secretary approved design flow using water meter data authorized pursuant to § 1-804.

(3) For uses not appearing in Table 8-3:

(A) when the wastewater system is a soil-based wastewater system, or a sanitary sewer service line that conveys wastewater to an indirect discharge system, a design flow approved by the Secretary following receipt of the designer's proposal for a design flow that will accommodate the wastewater strength and characteristics and the amount of water necessary for the proposed use, taking into account:

(i) the design flows for uses in Table 8-3 with similar water usage and wastewater strength and characteristics;

(ii) the submission of water use data that meets the requirements in § 1-804(d) and (e) and the submission of wastewater strength and characteristics that meets the requirements of § 805(c), accompanied by a request to establish a design flow for the proposed use that includes the information identified in § 1-804(a) and (c); or

(iii) for commercial, industrial, manufacturing, or agricultural uses, the design flow determined by other methods approved by the Secretary. Other methods may include manufacturer's specifications and method used to determine design flow and wastewater strength and characteristics; flows and wastewater strength and characteristics from other States or the Environmental Protection Agency; or published and peer review studies by States, Colleges, or Universities that include flows and wastewater strength and characteristics.

(B) when the wastewater system is a sanitary sewer service line that conveys wastewater to a wastewater treatment facility, a design flow approved by

the Secretary following receipt of the designer's proposal for a design flow that will accommodate the wastewater strength and the amount of water necessary for the proposed use, taking into account:

(i) the design flows for uses in Table 8-3 with similar water usage and wastewater strength;

(ii) the submission of water use data that meets the requirements in § 1-804(d) and accompanied by a request to establish a design flow for the proposed use that includes the information identified in § 1-804(b) and (c); or

(iii) for commercial, industrial, manufacturing, or agricultural uses, the design flow determined by other methods approved by the Secretary. Other methods may include manufacturer's specifications and method used to determine design flow and wastewater strength and characteristics; flows and wastewater strength and characteristics from other States or the Environmental Protection Agency; or published and peer review studies by States, Colleges, or Universities that include flows and wastewater strength and characteristics.

(g) In the following situations, a designer may reduce, by the reduction indicated as follows, the design flow calculated pursuant to Subsection (d), (e), and (f) for individual components of a wastewater system or potable water supply:

(1) If the living unit served is senior housing but does not include assisted living or nursing care associated with the senior housing, the design flow for a component that will serve the living unit may be reduced to 105 gallons per day (based on 1.5 persons per living unit).

(2) If not more than four living units will be served by a component and each living unit contains only composting or incinerating toilets, the design flow for the component may be reduced by 25 percent.

(3) If a building or structure, other than in a living unit, or a campground, that will be served by a component contains only composting or incinerating toilets and the Secretary determines that a reduction in design flow proposed by the applicant's designer for the component will not increase the probability the system or supply will fail, the design flow for the component may be the design flow approved by the Secretary.

(h) The design flow for individual components of a wastewater system or potable water supply, and the design flow for a replacement area, that will serve a building or structure or campground with multiple uses, whether residential or non-residential, shall be determined by calculating the maximum sum of the design flows for each use of the building or structure or campground in any 24-hour period.

(i) When a wastewater system includes a gravity sanitary sewer service line or gravity sanitary sewer collection line exceeding 500 feet in total length, individually or in combination, the following infiltration design flow shall be added to the design flow identified in Subsection (c) through (h) for individual components of the wastewater system that receive flow from the service or collection line:

(1) 300 gallons per inch of diameter per mile of pipe per day; or
(2) 200 gallons per inch of diameter per mile of pipe per day when the Secretary approves the reduction based on a request and specific information provided by a designer in the application.

Table 8-1
Design Flows for the Residential Use of Buildings or Structures With 5 or More Living Units

Number of Living Units	Wastewater System (Gallons Per Day)	Potable Water Supply (Gallons Per Day)
5	1575	1800
6	1830	2160
7	2065	2520
8	2280	2880
9	2565	3240
10	2800	3600
11	3036	3960
12	3264	4320
13	3484	4680
14	3696	5040
15	3900	5400
16	4112	5760
17	4369	6120
18	4518	6480
19	4712	6840
20 or more	245 per living unit*	360 per living unit

* Provided the individual component of the wastewater system is receiving less than 50,000 gallons per day. When the component is receiving 50,000 gallons per day or more, the design flow for the component decreases to 210 per day per living unit.

Table 8-2
Design Flows for Campsites

Use of Campsite		
Type or description of campsite use	**Units**	**Gallons Per Day Per Unit**
Campsites for Tents and Other Camping Units with No Interior Plumbing		
central toilets with showers	site	75
central toilets without showers	site	50

Use of Campsite		
Type or description of campsite use	**Units**	**Gallons Per Day Per Unit**
Campsites for Camping Units with Interior Plumbing but No Sewer Hook-Up		
central toilets facilities	site	50
dumping station	site	25
Campsites for Camping Units with Sewer Hook-Up		
with or without central toilet facilities serving the units	site	75
Cabins with Plumbing; Park Model Recreational Vehicles		
with or without kitchen but without laundry facilities	sleeping space*	50
with or without kitchen but with laundry facilities	sleeping space*	70

* Design flow shall be calculated based on a minimum of four sleeping spaces.

Table 8-3
Design Flows for Non-Residential Uses of Buildings or Structures

Use of Building or Structure		
Details of use	**Units**	**Gallons Per Day (gpd) Per Unit***
Animal, Dog, or Small Animal Grooming; Kennels		
for each use	employee	13
grooming station	station	400
kennels cages or enclosures	cage or enclosure	25
Airport		
airport	passenger	4
with restaurant licensed by the Department of Health	seat licensed by the Department of Health	use ***Restaurant***

Use of Building or Structure		
Details of use	**Units**	**Gallons Per Day (gpd) Per Unit***
Assembly Area; Conference Room with no food service		
for each use	seat	4
Assembly Area; Banquet Hall; Conference Room with catered food service prepared off the lot		
for each use	seat per meal	8
Assembly Area; Banquet Hall; Conference Room with food service for one meal (food prepared in a kitchen on the lot) (if more than one meal is served, use Restaurant)		
for each use	seat	14
Barber Shop; Hair Salon		
no hair washing	chair	50
hair washing	chair	150
hair salon	stylist, operator	32
barber shop; hair salon	employee (not a barber, stylist or operator)	13
Beer, Wine, or Spirits Tasting Room		
no public toilets, may have seats but no meal served	tasting room	100
no public toilets, may have seats but no meal served	employee	13
with public toilets and seats but no meal served	tasting room	300
with public toilets and seats if meal served	seat licensed by the Department of Health	use ***Restaurant*** or 300, whichever is greater
Brewery		
brewery	gallon of beer brewed	4.5
brewery	employee	13

Bowling Alley		
bowling alley	lane	67
restaurant	seat licensed by the Department of Health	use ***Restaurant***
Car Wash		
car wash	car	based on the manufacturer's specifications for per vehicle wash
with employees	employee	13
providing public toilets	patron	4
Care Facilities		
correctional facility	sleeping space	125
assisted living facility	sleeping space licensed by the Agency of Human Services	85
hospitals	sleeping space	250
nursing care home	sleeping space	125
residential care homes or disabled housing	bedroom	105
rehabilitation or therapeutic community residence and shelters	sleeping space licensed by the Agency of Human Services	70
rehabilitation or therapeutic community residence and shelters	non-resident staff per shift	13
other care facilities	sleeping space	125
Catering or Take-Out Facility (no on-premise public seating)		
limited operation – serving coffee, steamed or roto-grilled frankfurters	N/A	0
commercial catering within a residence	N/A	100
commercial catering within a residence	employee	13
commercial caterer not in a residence	N/A	100
commercial catering not in a residence	employee	13

ice cream shop	N/A	100
ice cream shop	employee	13
bakery	N/A	100
bakery	employee	13
deli	N/A	100
deli	employee	13
with seafood license	N/A	100**
with seafood license	employee	13**
Child Care Facility		
without meals	child, employee	13
with 1 meal	child, employee	16
with 2 meals	child, employee	19
Children's Summer Camp		
overnight camp	person	45
day camp (no meals served)	person	13
day camp (meals served)	person	use ***Child Care Facility***
Church; Temples; Mosques; Other Places of Worship		
sanctuary	seat	1
other areas of assembly	seat	4
meals prepared off site	seat per meal	8
Dentist Office		
dentist office	dentist, hygienist, other medical employee	32
dentist office	non-medical employee	13
dentist office	chair	based on manufacturer's specifications; if no specifications, 100
dentist office	patient	4, unless using 100 gallons or more per chair (then 0)
Doctor Office		
doctor office	doctor, nurse, other medical employee	32
doctor office	non-medical employee	13
doctor office	patient	4

Food Markets; Grocery Stores; Food Stores		
with bakery	N/A	100
with deli	N/A	100
with meat department but without garbage grinder	100 square feet	7.5
with meat department with garbage grinder	100 square feet	11
with seafood license	N/A	100**
with public seating	seat licensed by the Department of Health	15
Hotels; Motels; Inns; Bed & Breakfasts; Extended Stay Hotels		
for each use	sleeping space	50
meals served only to guests	meal per sleeping space	5
kitchen in room	sleeping space	5
staff, manager, or owner bedroom	bedroom	140
on premise laundry	machine	use ***Laundromat; Laundry Services***
Laundromat; Laundry Services		
laundromat or laundry service	top or front-loading machine	450
laundromat or laundry service	machine	case by case based on type of operation, hours of operation, and manufacturer's specifications
laundromat or laundry service	employee	13
Marina		
with no showers	slip, mooring	4
with showers	slip, mooring	10
holding tank pump-out	boat	25 with a minimum size on-shore holding tank of 500 gallons
marina	employee	13

Nail Salon		
nail salon	manicurist or pedicurist	32
nail salon	employee (non-manicurist or pedicurist)	13
nail salon	manicure station	50
nail salon	pedicure station	100
Office, Factory, Welcome Center, and Place of Employment		
without showers	employee per shift	15
with showers	employee per shift	20
with cafeteria	seat	use ***Restaurant***
with public toilet	patron or client (non-employee)	4
Restaurant		
restaurant serving a max. of 2 meals per day	seat licensed by the Department of Health	27
restaurant serving a max. of 3 meals per day	seat licensed by the Department of Health	40
restaurant with 9 or fewer seats	restaurant	300
School		
boarding; includes dormitories with staff, cafeterias, and showers	student	90
grades pre-school through 8 w/o cafeterias or showers	student, employee	5
grades 9 through 12 w/o cafeterias or showers	student, employee	12
grades pre-school through 8 with cafeteria and w/o showers	student, employee	8
grades 9 through 12 with cafeteria and w/o showers	student, employee	15
grades pre-school through 8 with cafeteria and showers	student, employee	11
grades 9 through 12 with cafeteria and showers	student, employee	18

Service Station		
service station	employee per shift	13
with public toilets	gas or diesel fueling hose	125
Sports Arena; Skating Rink; Soccer Field; Tennis Court; Pools; Hot Tubs; Saunas; Spas; Health Club; Exercise Gym; Dance Studio; Similar Facility		
for each use	trainer	32
for each use	employee (non-trainer)	13
for each use	spectator	3
without showers	participant	4
with showers	participant	8
restaurant or cafeteria	seat licensed by the Department of Health	15
water treatment backwash	case by case	case by case based on quantity of backwash per cycle and frequency of cycle
rink, pool, spa discharge	case by case	case by case based on the quantity of discharge and frequency of discharge
Store not otherwise identified in this Table		
store in a shopping center, mall, or on an individual lot	varies	4 gpd/100 sq. ft. or 90 gpd/store, whichever is greater
Therapist Office (massage, physical therapy, acupuncturist, chiropractor)		
therapist office	therapist	32
therapist office	employee (non-therapist)	13
without showers	client	4
with showers	client	8
Therapist Office (mental health counseling)		
therapist office	therapist, employee	13
therapist office	client	4
Toilet Buildings associated with Outside Activities such as Picnic Areas and Recreational Fields		

toilet and handwashing	person	3
showers, toilet, and handwashing	person	8
Theatre		
drive-in	car space	3
indoor	seat	3
with food concession	concession area	100
Veterinary Clinic		
veterinary clinic	veterinarian	200
veterinary clinic	employee (non-veterinarian)	13
with animal boarding	animal	25

* Design flows for each use take into account the water use of employees and toilets available to the public, unless separately addressed for a use.

** Design flow does not include disposal of ice used for storing and displaying seafood. If the ice is disposed of by spraying with water to melt the ice, the design flow needs to include the quantity of water needed to melt the ice.

Note: A use identified in Table 8-3 may generate high strength wastewater. Examples include restaurant use, convenience store use particularly with coffee sale, bar use, and coffee and donut shop use.

§ 1-804 Water Meter Data

(a) An applicant or prospective applicant may submit a written request prepared by a designer that the Secretary determine that the wastewater strength and quantity of water necessary for a proposed non-residential use of a building or structure does not require the design flows specified in Table 8-3 for individual components of a soil-based wastewater system or of a sanitary sewer service line that conveys wastewater to an indirect discharge system, for individual components of a potable water supply, and for the replacement area, and that the Secretary assign a design flow for the use based on the following factors:

(1) the nature and design of the proposed use, including equipment that may be part of the use and any manufacturing process;

(2) daily water use data, as further described in Subsection (c);

(3) daily wastewater discharge collected and recorded using a method approved by the Secretary prior to collection;

(4) seasonal variations known or anticipated in occupancy or water usage of the building or structure;

(5) wastewater strength and characteristics analysis data, including BOD and TSS, that may be required to adjust the sizing of the leachfield according to § 1-904, as further described in Subsection (e); and

(6) other information the Secretary deems necessary based on the specific proposed use and request.

(b) An applicant or prospective applicant may submit a written request prepared by a designer that the Secretary determine that the quantity of water necessary for a proposed non-residential use of a building or structure does not require the design flows specified in Table 8-3 for individual components of a sanitary sewer service line that conveys wastewater to a wastewater treatment facility and individual components of a potable water supply and that the Secretary assign a design flow for the use based on the following factors:

(1) the nature and design of the proposed use, including equipment that may be part of the use and any manufacturing process;
(2) daily water use data, as further described in Subsection (c);
(3) daily wastewater discharge collected and recorded using a method approved by the Secretary prior to collection;
(4) seasonal variations known or anticipated in occupancy or water usage of the building or structure; and
(5) other information the Secretary deems necessary based on the specific proposed use and request.

(c) The burden shall be on the applicant or prospective applicant requesting the determination pursuant to Subsection (a) or (b) to satisfy the following requirements with information from a designer:

(1) Propose a design flow for the wastewater system based on:
    (A) the 90th percentile of all daily water meter readings; and
    (B) a proposed safety factor that accounts for fluctuations in metered flows. Considerations for determining a safety factor include:
        (i) the number of days the water meter readings exceeds the average flow calculated based on the water meter readings for the year;
        (ii) the number of days the water meter readings exceed the average flow calculated based on the water meter readings during the 3 consecutive months representing the highest water usage; and
        (iii) the 90th percentile of the water meter readings representing the highest water usage for 3 consecutive months.
(2) Propose a design flow for the potable water supply based on the peak recorded daily water meter reading.
(3) Demonstrate that the wastewater system and potable water supply comply with technical standards in this Subchapter and Subchapters 9, 10, 11, and 12;
(4) Provide information that addresses each factor in Subsection (a) or (b) and enables the Secretary to reach a determination and assign a design flow.

(d) Water use data shall include the following:

(1) A minimum of daily water meter readings for a year, unless:
    (A) the wastewater system and potable water supply will be operated for less than 180 days of days, in which case, daily water meter readings shall be taken for each day in operation; or

(B) the wastewater system and potable water supply will be operated for 180 days or more and the Secretary concludes that 1 year of daily water meter readings is not necessary to demonstrate the wastewater strength and quantity of water necessary for the proposed use and the Secretary provides approval, prior to the collection of water meter readings, for daily water meter readings to be taken for 180 consecutive days. An applicant seeking such approval shall submit the following information:

(i) the nature the existing use of the building or structure, including equipment that may be part of the use and any manufacturing process, that will be in use when meter readings will not be taken;

(ii) seasonal variations in occupancy or water usage of the building or structure demonstrating that all variations will be recorded during the 180 days;

(iii) wastewater strength and characteristics, including BOD and TSS, that may be required to adjust the sizing of the leachfield according to § 1-904 and as further described in Subsection (e), for the days when meter readings will not be taken; and

(iv) other information the Secretary deems necessary based on the specific proposed use and request.

(2) Daily record of the number of occupants, employees, or other users of the building or structure, unless approval is provided by the Secretary, prior to collection of water meter readings and based in information submitted by the applicant, of an alternative basis for recording the intensity of the daily use of the building or structure.

(3) The quantity of process water used for industrial or manufacturing facilities.

(4) The quantity of water for domestic type use.

(5) The quantity of water that comes from the potable water supply serving the building or structure that will not discharge to the wastewater system.

(e) Wastewater strength and characteristics analysis data shall include 8-hour composite samples or other sampling method approved by the Secretary during the period of recording the water meter readings, taken at the following intervals:

(1) 1 sample during each 3-month period of use of the building or structure, provided that, if the building or structure is in use for fewer than 6 months, a minimum of 2 samples are taken;

(2) at least 2 of the samples shall be taken during the normal peak use of the building or structure or campground; and

(3) more frequent sampling when the Secretary determines that the sampling results may not be representative of the use of the building or structure.

(f) The approval by the Secretary of a design flow different than that specified in Table 8-3 shall not be used for the purposes of determining, pursuant to § 1-301(a), whether an action will result in an increase in design flow of any component of a wastewater system or potable water supply.

(g) The approval by the Secretary of a design flow different than that specified in Table 8-3 for a proposed non-residential use of a building or structure shall:

(1) be issued in writing in the permit for the wastewater system or potable water supply that will serve the building or structure; and
(2) state that a reduction from the design flow specified in Table 8-3 was approved and identify the approved design flow.

§ 1-805 Wastewater Strength

(a) A leachfield for which design flow is determined pursuant to § 1-803(f)(2) or (3) or that will dispose of food processing waste, including a leachfield that will serve a building or structure with a use as a brewery, shall comply with the following requirements:
(1) Septic tank effluent that is low strength may be discharged to the leachfield.
(2) Septic tank effluent that is high strength but treated to reduce the strength to low strength may be discharged to the leachfield after such treatment.
(3) Septic tank effluent that is high strength is prohibited from being discharged to the leachfield unless the leachfield is sized pursuant to Subsection (d).

(b) Wastewater strength of septic tank effluent shall be categorized based on the following standards:
(1) Septic tank effluent is low strength when it meets the following standards:
(A) $BOD_5 \leq 300$ mg/L;
(B) TSS $\leq$ 150 mg/L; and
(C) Fats, Oil & Grease (FOG) $\leq$ 50 mg/L.
(2) Septic tank effluent that exceeds any one of the standards for BOD_5, TSS, or FOG specified in Subsection (b)(1) is high strength.

(c) When wastewater strength is determined for septic tank effluent, it shall be determined using one of the following methods:
(1) sampling of BOD_5, TSS, and Fats, Oil, & Grease as an 8-hour composite or other sampling method approved by the Secretary;
(2) sampling of BOD_5, TSS, and Fats, Oil, & Grease from a wastewater system serving buildings or structures or campground with similar uses as an 8-hour composite or other sampling method approved by the Secretary; or
(3) literature review of BOD_5, TSS, and Fats, Oil, & Grease from buildings or structures, or campgrounds with similar uses, using the highest strength value identified for the particular uses.

(d) When a leachfield is proposed to dispose of high strength wastewater and is proposed using a Secretary-assigned design flow based on the submission of water use data and wastewater strength calculations pursuant to § 1-803(f)(3)(A) or § 1-804, the leachfield shall be sized using one of the following formulas in lieu of any formula or method for sizing the particular type of leachfield specified in Subchapter 9 that would otherwise apply:
(1) The formula SQLF = ($BOD_5 \div 300$ mg/L) x (DF $\div$ AR) where:
(A) SQLF = the minimum required square footage of leachfield in square feet;
(B) DF = the design flow in gallons per day; and
(C) AR = the application rate for the soil in gallons per square foot per day identified in § 1-911.

(2) Another formula proposed by an applicant's designer and accepted by the Secretary.

§ 1-806 Determining Baseline Design Flow for Increases in Design Flow

(a) For the purpose of this Section, the term "bedroom" means:
- (1) a room identified as a bedroom on a lister card applicable between January 1, 2006 and December 31, 2006; or
- (2) a room the owner of the building or structure between January 1, 2006 and December 31, 2006 certifies under oath was:
  - (A) occupied as sleeping quarters for a minimum of 90 days between January 1, 2006 and December 31, 2006; and
  - (B) contained one window or door that leads directly to the outside and one door that separates the room from the other living space.

(b) For the purpose of determining, pursuant to § 1-301(a), whether an action will result in an increase in design flow of any component of a wastewater system or potable water supply for which the clean slate permit exemption in § 1-303 is in effect, the baseline design flow from which a potential increase is measured shall be calculated according to the following:
- (1) For living units:
  - (A) The maximum number of bedrooms in the living unit between January 1, 2006 and December 31, 2006, and the following standards:
    - (i) that the first 3 bedrooms in a living unit contains 2 persons per bedroom, unless Subsection (B) or (C) applies;
    - (ii) that each additional bedroom beyond 3 contains 1 person per bedroom, unless Subsection (B) or (C) applies; and
    - (iii) that each person uses 70 gallons of water per day.
  - (B) If a bedroom contains built-in beds providing sleeping space for more than 2 persons, the number of persons assumed for that bedroom shall be based on the number of sleeping spaces.
  - (C) If an applicant certifies under oath that more than 2 persons were living in a bedroom at the same time between January 1, 2006 and December 31, 2006, the number of persons assumed for that bedroom shall be based on the number certified to.
- (2) For campsites, the maximum number and the use of campsites that existed between January 1, 2006 and December 31, 2006, and the design flow specified in Table 8-2.
- (3) For buildings or structures or portions of building or structure other than living units, the use, or combination of uses in a 24-hour period, of the building or structure between January 1, 2006 and December 31, 2006 with the highest design flow, and the design flow specified in Table 8-3.

(c) For the purpose of determining, pursuant to § 1-301(a), whether an action will result in an increase in design flow of any component of a wastewater system or potable water supply for which the clean slate permit exemption in § 1-303 is not in effect, the baseline design flow from which a potential increase is measured shall be calculated by reference to the

permit authorizing the operation of the component, the approved site plan, and the design flows specified in § 1-803.

(d) A baseline design flow shall not be calculated using a Secretary approved design flow authorized pursuant to § 1-804 except pursuant to § 1-803(f)(3) for uses not appearing in Table 8-3.