



## MEMORANDUM

TO: Health District Environmental Health Directors  
Health District Environmental Health Supervisors  
Health District Environmental Health Program Managers  
DEQ Wastewater Program Staff – State Office  
DEQ Regional Office Administrators  
DEQ Regional Office Engineering Managers

FROM: Peter Adams, DEQ On-Site Wastewater Coordinator

THROUGH: Mary Anne Nelson, DEQ Surface & Wastewater Division Administrator

DATE: July 13, 2022, last revised May 24, 2023

SUBJECT: RV Park On-Site Wastewater Disposal Systems

*This memorandum revises and supersedes previous versions of the RV Park On-Site Wastewater Disposal Systems memorandum. Revisions include the following:*

*May 24, 2023*

- *Clarified design requirements for RV Parks generating wastewater flows  $\geq 2,500$  GPD*

This memorandum is intended to provide clarification on the requirements for on-site wastewater disposal at Recreational Vehicle (RV) Parks. RV Parks pose a unique challenge for the safe disposal of wastewater due to the presence of chemicals in RVs' on-board wastewater holding tanks, the higher concentration of blackwaste within RV wastewater due to recirculation, and the logistics of transferring wastewater from RVs' internal holding tanks to an approved disposal location. Wastewater disposal options for RV Parks include public sewer hook-ups, on-site central dump stations, or individual hook-ups to an on-site subsurface sewage disposal (SSD) system.

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## Definitions

*Designated Camp Area*, as referred to in IDAPA 58.01.03.007.08, is defined herein as a property that provides facilities as well as *Spaces* available for reservation by the public. *Campground* has the same meaning as *Designated Camp Area*.

*Manufactured Home*, per IDAPA 39.03.01, is defined as a structure, constructed according to HUD/FHA mobile home construction and safety standards, transportable in one (1) or more sections, that, in the traveling mode, is eight (8') body feet or more in width or is forty (40') body feet or more in length, or when erected on site, is three hundred twenty (320) or more square feet, and that is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air conditioning, and electrical systems contained therein, except that such term includes any structure that meets all the requirements of this subsection except the size requirements and with respect to which the manufacturer voluntarily files a certification required by the secretary of housing and urban development and complies with the standards established under 42 U.S.C. 5401 et seq. Similarly constructed vehicles used permanently or temporarily for offices, advertising, sales, display or promotion of merchandise or services are included in this definition.

*Mobile Home*, per IDAPA 39.03.01, is defined as a structure similar to a manufactured home, but built to a state mobile home code that existed prior to the Federal Manufactured Housing and Safety Standards Act (HUD Code) dated June 15, 1975.

*Public Drinking Water System*, per IDAPA 58.01.08.003.110, is defined as a system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least fifteen (15) service hook-ups, regardless of the number of water sources or configuration of the distribution system, or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year.

*Recreational Vehicle (RV)* is defined herein as either a vacation trailer or a self-propelled vehicle or structure, equipped with wheels and designed for legal highway use, which is intended for human occupancy and is being used for incidental or transitory occupation, but not for full-time, permanent occupation, and is equipped with an on-board wastewater holding tank and any combination of plumbing that includes but is not limited to bathroom sinks, kitchen sinks, showers, toilets, dishwashers, and washing machines. RV's that are used for continuous occupation on a single property for more than one (1) year are considered single-family dwellings.

*Space*, as referred to in IDAPA 58.01.03.007.08 in the context of *Designated Camp*

*Areas or Travel Trailer Parks*, is defined herein as an area of ground intended for the accommodation of one RV, tent, or other individual camping unit on a temporary basis.

*RV Space* is defined herein as a *Space* that includes an individual drinking water connection and is capable of accommodating an RV.

*Travel Trailer Park*, as referred to in IDAPA 58.01.03.007.08, is defined herein as a property containing *RV Spaces* available for reservation by the public. *Campgrounds* are considered *Travel Trailer Parks* if they meet this definition. *RV Park* has the same meaning as *Travel Trailer Park*.

## **Operation, Maintenance, and Monitoring**

All applications submitted to the health districts for an RV Park dump station or SSD system must include an Operations, Maintenance, and Monitoring (OMM) Plan detailing how the owner will ensure proper wastewater disposal on their property (IDAPA 58.01.03.001.04, 58.01.03.005.04.k, 58.01.03.005.14). This OMM plan may include information such as:

- If wastewater hook-ups are not provided for individual RV spaces, detail how the property will ensure proper disposal of wastewater from an RV that has occupied a space for an extended time period (>3 days) without visiting a dump station.
  - Licensing information for any on-site RV tank pumping vehicle provided as a service to guests, per IDAPA 58.01.03.050 & 51.
- The contact information for the licensed pumper contracted to service the dump station, if present.
- The frequency that the dump station will be serviced by the licensed pumper.
- Statement that the SSD system's septic tank(s) will be pumped at least every three (3) years.
- Statement that the RV Park will inform guests that preservative chemicals used in RV's on-board wastewater holding tanks must not be introduced into the SSD system.
- Clean-up procedures and list of resources to be kept on the property for wastewater spills.
- Statement that the OMM will be updated and resubmitted to the Health District if there is a change in ownership of the RV Park, a change in pumping contractor, or additional development.
- If collecting empirical flow data for the subject property, methodology for collecting data (locations of flow meters, frequency of readings, occupancy records, etc.).

## **Permitting - General Requirements**

All properties that meet the definition of a Travel Trailer Park (RV Park) must provide the means for disposal of wastewater generated by RVs while on the property. If no public sewer is available, RV Parks generating less than 2,500 gallons-per-day (GPD) must provide on-site disposal in the form of either an RV dump station or an SSD system.

RV Parks generating wastewater flows of 2,500 GPD or more qualify as a Large Soil Absorption System (LSAS) per IDAPA 58.01.03 and a Public Wastewater System per IDAPA 58.01.16, and must be designed such that each RV space is connected to an LSAS. An LSAS must meet all requirements in IDAPA 58.01.03.

Applications for RV Parks that propose off-site disposal as an alternative to on-site disposal will not be considered.

## **Permitting - RV Dump Stations**

RV dump stations are an approved alternative wastewater disposal system for wastewater generated by RVs, and may be used as the sole wastewater disposal option for RV-generated wastewater at an RV Park with total wastewater flows of less than 2,500 GPD. RV Parks generating wastewater flows of 2,500 GPD or more may provide an RV dump station as a courtesy to guests, but each RV space must be individually connected to an LSAS.

All non-LSAS RV Parks that do not provide individual wastewater connections for any number of RV spaces must provide an RV dump station located on the property. RV dump stations must be permitted to the owner of the RV Park.

If an RV dump station is present at an RV Park that also provides individual SSD connections for guests, RVs should empty their wastewater holding tanks into the dump station upon entering the RV Park and refrain from adding preservative chemicals to their wastewater tanks while connected to the SSD system.

Non-LSAS RV Parks may provide individual water hook-ups without wastewater hook-ups (i.e., without an SSD system) as long as the OMM plan submitted with the dump station application specifies how the RV Park will ensure that all wastewater produced by RVs will be properly disposed of in the on-site RV dump station.

If a non-LSAS RV Park allows RVs to occupy spaces without individual wastewater connections for an extended period of time (>3 days), a dedicated on-site mobile pump truck may be provided as a service to guests to empty their RV's on-board wastewater tank while the RV remains at the space. If a dedicated on-site mobile pump truck is provided as a service to guests, it must be operated by a licensed pumper and conform to the requirements of IDAPA 58.01.03.050 & 051. The presence of a dedicated on-site mobile pump truck does not exempt a property from providing either an RV dump station or an SSD system.

For more details on RV dump station approval conditions, design requirements, and sizing, see the Technical Guidance Manual (TGM) Section 4.20.

## Permitting - RV Park SSD Systems

RV Parks may choose to install an SSD system with individual wastewater hook-ups to RV spaces as a convenience to guests. If an RV Park installs an SSD system, it is strongly recommended (but not required) that a dump station be installed as well. The presence of a dump station may not be used to justify a reduction in SSD system sizing.

Due to the likelihood of RV wastewater containing preservative chemicals that can inhibit bacterial growth, there is an increased risk that excess solids may accumulate in the septic tank and eventually pass into the drainfield. In order to reduce this risk, effluent filters should be installed in the RV Park SSD system's septic tank.

Determining the appropriate size of the SSD system will depend on several factors, including the presence of central toilet/shower facilities, laundry facilities, and any empirical flow data submitted with the SSD application. According to IDAPA 58.01.03.007.08, *Wastewater Flows from Various Establishments in Gallons per Day*, a Travel Trailer Park with water & wastewater hook-ups at individual RV spaces must be sized at 125 GPD/space.

**SSD system sizing Example 1:** A proposed RV Park plans for 19 RV spaces with individual water & wastewater hook-ups. The SSD system shall be sized as follows:

$$19 \text{ RV spaces} \times 125 \text{ GPD/space} = 2,375 \text{ GPD.}$$

If central toilets and/or showers are provided to guests in addition to wastewater and water hook-ups at individual RV spaces, the sizing requirements for Designated Camp Areas described in IDAPA 58.01.03.007.08 should be incorporated into the SSD system sizing.

**SSD system sizing Example 2:** A proposed RV Park plans for 20 RV spaces with individual water & wastewater hook-ups, and 10 camping spaces with no wastewater hook-ups. This property also proposes central toilets (but no showers) which will connect to the same SSD system as the RV spaces. The SSD system shall be sized as follows:

$$(20 \text{ RV spaces} \times 125 \text{ GPD/space}) + (10 \text{ camping spaces} \times 65 \text{ GPD/space}) = 3,150 \text{ GPD.}$$

**SSD system sizing Example 3:** A proposed RV Park plans for 20 RV spaces with individual water & wastewater hook-ups, and 10 camping spaces with no wastewater hook-ups. This property also proposes central toilet and shower facilities, which will connect to the same SSD system as the RV spaces. The SSD system shall be sized as follows:

$$(20 \text{ RV spaces} \times 125 \text{ GPD/space}) + (10 \text{ camping spaces} \times 90 \text{ GPD/space}) = 3,400 \text{ GPD.}$$

If laundry facilities are provided to guests in addition to wastewater and water hook-ups at individual RV spaces, the sizing requirements for self-service laundry described in IDAPA 58.01.03.007.08 (50 gallons/wash) should be incorporated into the SSD system sizing. During peak capacity it is reasonable to assume one (1) wash per space every three (3) days, equaling 17 GPD per space.

**SSD system sizing Example 4:** A proposed RV Park plans for 20 RV spaces with individual water & wastewater hook-ups, and 10 camping spaces with no wastewater hook-ups. This property also proposes central toilet, shower, and guest laundry facilities, which will connect to the same SSD system as the RV spaces. The SSD system shall be sized as follows:  
 $(20 \text{ RV spaces} \times 125 \text{ GPD/space}) + (10 \text{ camping spaces} \times 90 \text{ GPD/space}) + (30 \text{ spaces} \times 17 \text{ GPD/space}) = 2,500 + 900 + 510 = 3,910 \text{ GPD}$ .

Note: The properties in examples 2, 3, & 4 propose wastewater flows of at least 2,500 GPD and therefore the SSD system(s) on the property must conform to the requirements of an LSAS per IDAPA 58.01.03.013 and the requirements of a Public Wastewater System per IDAPA 58.01.16.

## Use of Empirical Flow Data for Reducing SSD System Sizing

According to IDAPA 58.01.03.010.01.d, deviations to dimensional requirements in the Rule may be allowed if provided for in the TGM. TGM Section 3.3.2 details the use of empirical wastewater flow data as a substitute for the design flows listed in IDAPA 58.01.03.007.08. Water usage data from a minimum of three facilities of similar operation should be provided with the SSD application for review by the health districts and the DEQ wastewater program state office.

If empirical flow data is submitted to the health district along with the SSD application, the health district may use this data to consider reducing the sizing requirements of the proposed SSD system.

**SSD system sizing Example 5:** A proposed RV Park plans for 30 RV spaces with individual water & wastewater hook-ups. Empirical flow data has been submitted with the SSD application, and the health district has determined that the data was collected in a satisfactory manner and is applicable to this proposed RV Park. This data demonstrates that the daily design flow for the proposed RV Park may be safely reduced to 75 GPD/space. The SSD system may be sized as follows:  $30 \text{ RV spaces} \times 75 \text{ GPD/space} = 2,250 \text{ GPD}$

If no acceptable empirical water usage data is available, SSD systems for proposed RV Parks are not to be granted reductions in daily design flow. However, once the SSD system is installed, RV Parks may submit their own water usage data to the health district, provided:

- The water usage data was collected over at least one year of normal operations
- The data specifies peak usage in addition to average usage



- RV space occupancy records are maintained and incorporated into the water usage data
- The submittal specifies if central toilets, showers, kitchens, or laundry facilities are present on the property
- The data was collected under the direction of a Professional Engineer licensed in Idaho

If an RV Park submits their own water usage data to the health district as a part of a request to add connections to an installed SSD system, the health district may use this data to consider allowing additional connections to the SSD system.

**SSD system sizing Example 6:** A existing RV Park has 19 RV spaces with individual water & wastewater hook-ups. The existing SSD system is sized at 125 GPD/space for a daily design flow of 2,375 GPD. The RV Park submits a request for additional connections to the health district, along with acceptable empirical flow data. This data demonstrates that the daily design flows for the existing RV Park may be safely reduced from 125 to 90 GPD/space. The health district may issue a written approval stating an additional 7 RV spaces may connect to the existing SSD system:  $26 \text{ RV spaces} \times 90 \text{ GPD/space} = 2,340 \text{ GPD}$

## Additional Considerations

Any RV Park with its own *Public Drinking Water System* must adhere to the requirements of IDAPA 58.01.08. This process is separate from the SSD system application and it is the responsibility of the RV Park owner, not the health district, to ensure compliance. As a courtesy, the health district may advise the owner to contact the DEQ regional office to discuss drinking water requirements.

*Manufactured Homes* and *Mobile Homes* are not considered RVs and must conform to the wastewater flow requirements for Single Family Dwellings listed in IDAPA 58.01.03.007.08. Transportable “tiny homes” are considered manufactured homes. Manufactured homes and mobile homes may not be connected to an RV Park SSD System unless the system is designed to accommodate permanent dwelling units.

### RV Park Permitting Flowchart (<2,500 GPD)

