

ONSITE SEWAGE SYSTEM  
MONITORING & MAINTENANCE  
*FIELD MANUAL*

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# PREFACE

## HOW TO USE THIS FIELD MANUAL

This Field Manual has been developed for the Monitoring & Maintenance (M&M) Specialist to use while conducting inspections of Onsite Sewage Systems (OSS).

The purpose of this Field Manual is to:

- Establish a baseline of the required inspection actions for each component of an OSS.
- Provide M&M Specialists with a clear and concise list of the minimum inspection activities that are required to be completed as required as part of their certification with the Health District.
- Generate consistency among certified contractors in what they inspect, how they inspect and how/what they report.

This manual is arranged by individual OSS components so that the M&M Specialist can match the minimum inspection requirements to each individual OSS that they encounter. The M&M Specialist may opt to inspect the system more thoroughly or frequently, but the inspection shall meet the minimums of this Field Manual.

The following describes each of the component inspection requirements:

- **Inspection Criteria:** Items to be inspected for each individual component.
- **Minimum Inspection Frequency:** The frequency of inspection per component.
- **Inspection Minimum:** A brief description of what is expected to be completed at minimum for each inspection item. Sometimes the M&M Specialist must refer to the manufacturer's operational manuals for reference to this requirement.
- **Corrective Action:** The Health Districts response to an identified deficiency, which is determined by the risk posed to human health, or the functionality of the system.

# INSPECTION FREQUENCY & REPORTING REQUIREMENTS FOR M&M SPECIALISTS

This section is presented in a Question & Answer format.

<b>Question</b>	<b>My new customer has previously had M&amp;M inspections. When is the first inspection due?</b>
Answer	When taking on a new customer who has previously had M&M in the past, if they are current with their inspections, you may wait until their next scheduled visit is due. We do, however, recommend that you conduct an initial inspection when you initiate your contract with the customer, which will align their inspections with your contract period.
<b>Question</b>	<b>We just completed an inspection or pumping. There were problems identified when the service provider was on site, however during the service the deficiencies were corrected. How should I report those?</b>
Answer	All deficiencies identified during the service must be identified on the report. Without this, the data available to show the progress of the M&M program will not be available. At the end of the inspection/pump report, you may state what the final status is. If everything is corrected, mark “all corrections made” and the report will not be flagged for review.
<b>Question</b>	<b>Surfacing effluent was identified during a service. How is this to be reported?</b>
Answer	Certification requirements obligate service providers to report to the Health District, within 5 days, the address of any property where an onsite sewage system failure has been observed. Service providers can report surfacing effluent by submitting “Notes to Regulator” correspondence through OnlineRME, making a phone call, or by filing an onsite sewage system inspection report (pumpers may file a pump report).

<b>Question</b>	<b>Once a routine inspection or pumping of an OSS has been completed, how long does a service provider have to submit the report?</b>
Answer	Certification requirements obligate the service provider to file the inspection or pump report within 30 days of the activity. This applies to routine visits (including semi-annual work). Please keep in mind that, at times, inspections and/or pumping activities may be initiated by a real estate transaction. In these cases, the customers may need the reports submitted sooner.
<b>Question</b>	<b>We were hired to complete some minor repair/modification work. How long do we have to report that work? What form do we use?</b>
Answer	All minor repairs must be reported to the Health District within 14 days of the activity. <i>Policy #15</i> details the reporting requirements, what types of jobs qualify as minor repairs, and who may complete them.
<b>Question</b>	<b>We just signed up a new customer for a M&amp;M contract. How quickly must we record that contract in OnlineRME?</b>
Answer	Certification requirements obligate the service provider to enter the contract into OnlineRME within 30 days of the signing of the contract. However, the quicker the contract is entered, the better. At times a customer may be getting a contract because of an enforcement action with the Health District. Until the contract is entered, we don't know they have complied with the order.
<b>Question</b>	<b>Our new customer has never had an M&amp;M inspection. When is the first inspection due?</b>
Answer	<p>For new systems that are less than one year old, or six months old for proprietary systems that require inspections every six months, the first inspection shall be conducted at either the one-year or six-month mark. It is recommended that you conduct an initial complete inspection when you take the contract to align your contract period with the inspection period.</p> <p>For systems that are older than one year or six months for proprietary systems, the first inspection must be completed within 30 days of contract initiation.</p>



## MINIMUM DOSING REQUIREMENTS PER COMPONENT TYPE

System Type	Minimum Doses Per Day
Pressure Distribution Drainfield	6
Non-Proprietary Sand Based Treatment Systems	*
Drip Irrigation Drainfield	12
Glendon BioFilter	Proprietary
OSCAR	Proprietary

\*  $\frac{1}{4}$  to  $\frac{1}{2}$  gallons per orifice per dose, not to exceed the daily design maximum flow.

**NOTE:** For non-proprietary sand-based treatment systems: If orifice information is unknown due to the age of the system or lack of records, the minimum doses per day shall be 12.

# ACCESSIBILITY & RETROFIT REQUIREMENTS

The following retrofit and accessibility requirements are to be utilized in the following manner:

## Existing Systems

### Gravity Onsite Sewage Systems

Gravity onsite sewage systems must meet the minimum retrofit and accessibility requirements per the applicable regulations at the time of original Onsite Sewage Disposal Permit approval.

**NOTE:** If the onsite sewage system is being repaired/modified or if property improvements are proposed/made; the onsite sewage system must meet the most current accessibility requirements defined within this document.

### Alternative Onsite Sewage Systems

Alternative onsite sewage systems installed prior to May 1, 2008, must meet the minimum retrofit and accessibility requirements per BKCHD Ordinance 1996-8.

**NOTE:** If the onsite sewage system is not accessible or any component is being repaired/modified; the onsite sewage system must meet the most current accessibility requirements defined within this document.

Exception: The inlet and outlet baffles are not required to be made accessible unless the outlet baffle has an outlet screen for systems installed prior to May 1, 2008.

### Electrical Junction Boxes

Loose wiring located within a tank, requires that an electrician add a waterproof junction box within the tank riser and rewiring the connection per current code.

## New Systems

Installed under KPHD Ordinance 2008-01 & 2008A-01.

**Note:** Additional accessibility items may be required based upon site conditions.

### General Site Conditions

#### Control Panels:

- Installed in an exterior location that is accessible, between three and five feet in elevation above finished grade, that meets Washington State Department of Labor and Industry's electrical safety requirements; and
- Alarms and pumps connected to dedicated electrical circuits so that the alarm circuit is independent of the pump circuit; and
- Contain audible and visual alarms to alert the owner, resident, and/or occupant of a system malfunction; and
- Include a remote notification device for the alarm system when the onsite sewage system alarm notification device is located greater than 100 feet from building, such as an auto-dialer or telemetry notification system, to notify the respective Monitoring and Maintenance service provider and/or the property owner/occupant of alarm events.

#### Onsite Sewage System Components Accessibility:

- All components must be accessible so that a complete and thorough maintenance event can occur.
- All sampling ports (when present) shall have risers installed to finish grade.

### Tanks – Includes: Holding, Trash, Grease, Septic and Clarifying Tanks

- 6" Minimum Riser to surface over inlet and outlet baffles
- 24" Minimum Main compartment riser(s) to surface

### Pump Tanks – Includes Recirculation Tank

- 24" Minimum Main compartment riser(s) to surface
- Internal Watertight Junction Box
- Independent Float Tree

### Aerobic Treatment Units – Includes Packed Bed Filters

- All compartments with risers to surface
- Aerobic mechanisms accessible (risers, etc.) – Exterior of Buildings
- Visual/Audible Alarms Present – Exterior of Buildings

## Sand Filters - Including Bottomless Sand Filters

- Pump vault riser to surface (if applicable)
- Independent float tree (if applicable)
- Screw caps at ends of all laterals
- Clean-outs brought up to finished grade and enclosed within six-inch riser
- Valves accessible in six-inch (minimum) riser to surface
- Air coil accessible (if present) within riser to surface

## Disinfection – Chlorine – UV - Ozone

- Access riser to surface
- Visual/audible alarms present – Exterior of buildings
- UV units are to be installed in pump tanks

## Drainfield: Gravity Laterals & Gravity Beds

- Monitoring ports required (existing drainfields that do not show that monitoring ports were installed per the original as-builts may be exempt from installing monitoring ports)

## Drainfield: Pressure Laterals, Pressure Beds and Sand Lined Trenches

- Monitoring ports required
- Valves accessible in six-inch (minimum) riser to surface
- Clean-outs brought up to finished grade and enclosed within six-inch (minimum) riser. Sweep 90's are required
- Screw caps at end of laterals

## Drainfield: Drip Irrigation

- Headworks assembly accessible within riser to surface (all valves and spin filters included)
- Six-inch (minimum) risers to surface for vacuum breakers

## Media Filter: Mound

- Screw caps at ends of laterals
- Ball or gate valves accessible in six-inch riser to surface
- Six-inch (minimum) risers to surface for clean-outs

## Media Filter: Biofilter

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- Dosing ports to surface
- Valves accessible within riser to surface (M31 & M32)

# INDIVIDUAL COMPONENT CHECKLIST

## Overview

These checklists are meant to be used as a guide for each component to be inspected. Unless otherwise noted, the checklist item for each component is expected to be completed at each required service interval.

Some component inspection questions result in deficiencies while others result in no deficiencies. It is the responsibility of the service provider to perform each component inspection item, and it is the responsibility of the property owner to correct any identified deficiencies within the identified timeline within this manual.

## General Site & System Conditions

### Inspection frequency: Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection.

These items may be skipped on a complaint or follow-up inspection, but if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Components accessible for maintenance	All components to be inspected must be inspected. This includes yards accessible and free from animals that will prevent the maintenance to occur.	Must be corrected by next routine inspection
All required service performed (if no- specify omitted inspection items in notes)	All components shall be inspected for function.	Must be corrected by next routine inspection
Surfacing effluent from any component (including mound seepage)	Visually inspect all components to ensure that there is no surfacing effluent.	Health District will issue Notice to Correct Violation
Components appear to be watertight – no visual leaks	Inspect components for water tightness where applicable.	Health District will issue Notice to Correct Violation
Improper encroachment (structures/impervious surfaces; over or settling problems observed)	Check that components meet appropriate setbacks, are free from adverse cover and no adverse settling has occurred.	Must be corrected by next routine inspection
Structures connected to onsite sewage system occupied. If NO explain in comments	Identify if the property has been vacated.	N/A

Inspected components appear to be in good physical condition

Inspect all components to ensure that they are in the condition as designed or intended.

Must be corrected by next routine inspection

All riser lids securely fastened upon departure

Indicate upon arrival if lids were not secure. Upon departure lids must be secured.

Health District will issue Notice to Correct Violation

## Control Panels

### Inspection frequency: Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection.

**NOTE:** The example shown is for a single pump panel. For multiple pump panels the same requirements apply for each question.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Panel functioning	Audio/Visual/Mechanical Inspection	Health District will issue Notice to Correct Violation
The panel has been setup to dose the system a maximum of _____ gpd:	Report the gallons per day maximum that the system will dose with the current settings	N/A
Alarm Mechanism functioning as intended	Physical and audible inspection	Must be corrected by next routine inspection
Pump 1: Arrival on minutes (override in parentheses - if present):	Report the arrival on minutes. If the panel has an override setting, enter the result in parentheses.	N/A
Pump 1: Arrival off hours (override in parentheses - if present):	Report the arrival off hours. If the panel has an override setting, enter the result in parentheses.	N/A
Pump 1: Arrival gallons per dose, ETM, Cycle Count (override in parentheses - if present):	Report the arrival gallons per dose, ETM, and/or cycle count for all counters present. If the panel has an override setting, enter the result in parentheses.	N/A
Pump 1: Timer setting adjustments were required (If yes indicate new timer settings and state reason in comments)	If the timer settings change, report the new result and a comment that the change was made.	N/A
Pump 1: New off hours (override in parentheses)	If the timer settings were changed, report the new off hour setting. If the panel has an override setting, enter the new override setting in parentheses.	N/A
Pump 1: New on minutes (override in parentheses)	If the timer settings were changed, report the new on minute setting. If the panel has an override setting, enter the new override setting in parentheses.	N/A
Pump 1: New gallons per dose (override in parentheses)	If the timer settings were changed, report the new gallons per dose setting. If the	N/A



panel has an override setting, enter the new override setting in parentheses.

## Holding Tanks

Inspection frequency: Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Pumping Needed:	Effluent is greater than 3/4 volume of holding tank or at alarm event	Health District will issue Notice to Correct Violation

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## Trash, Grease, Septic, & Clarifying Tanks

Inspection frequency: Annually

All checklist items contained within the component must be inspected and reported for each required inspection.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
All required baffles in place (N/A = No baffles required):	Visual inspection – requirement based upon permit approval date	Must be corrected by next routine inspection
Effluent level within operational limits (if NO explain in comments)	Inspect inlet and outlet to ensure that liquid levels are excessively above the invert.	Depends upon item identified. If the problem identified is found to be detrimental to the system function, immediate correction will be required. Health District will issue Notice to Correct Violation. Otherwise, it must be corrected by the next routine inspection.
Effluent Filter Cleaned (N/A = Not Present):	For tanks with an effluent filter, clean the effluent filter with pressurized water	N/A
Compartment 1, 2, & 3 Scum accumulation (Inches, if other specify):	Checked with Scum Measurement Tool	Must be corrected by next routine inspection
Compartment 1, 2 & 3 Sludge accumulation (Inches, if other specify):	Check all separate components of the tank with a Sludge Measurement Tool	Must be corrected by next routine inspection
Pumping Needed:	Scum/Sludge is greater than 2/3 volume of tank	Must be corrected by next routine inspection

## Pump & Recirculation Tanks & Pump Basins

Inspection frequency: Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Compartment 1 & 2 (if present) Scum accumulation (Inches, if other specify):	Checked with Scum Measurement Tool	Must be corrected by next routine inspection
Effluent Filter Cleaned (N/A = Not Present):	Clean with pressurized water	N/A
Compartment 1 & 2 (if present) Sludge accumulation (Inches, if other specify):	Checked with Sludge Measurement Tool	Must be corrected by next routine inspection
Pumping Needed:	If sludge has accumulated to levels that are conducive to transport of sludge out of tank. (IE: Sludge is at the level of the block, or near the intake points of the basin/screen)	Must be corrected by next routine inspection

## Effluent Pumps

### Inspection frequency: Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection.

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Controls functioning	Visual check of on/off and alarm mechanism	On/OFF Control - Health District will issue Notice to Correct Violation Alarm - Must be corrected by next routine inspection
Pump Vault Filter Cleaned:	N/A	N/A
Tested gallons per minute flow:	N/A	N/A

## Siphons

### Inspection frequency: Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection.

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Siphon Cleaned:	N/A	N/A
Siphon Dose Volume	Calculate and verify dose volume	N/A
Siphon functioning	Force a dose to ensure that the siphon works as intended	Health District will issue Notice to Correct Violation

## Distribution Boxes

### Inspection frequency: Annually Minimum – If accessible

All checklist items contained within the component must be inspected and reported for each required inspection.

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
D-Box in good condition:	Visual inspection of component	Health District will issue Notice to Correct Violation
D-Box outlets are set to equal elevation:	Visual inspection of component	Health District will issue Notice to Correct Violation

## Proprietary Treatment Units

Inspection frequency: Manufacturer and model specific

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

## Inspection Minimums & Corrective Action Requirements

### Generic ATU Checklist

Inspection frequency – Semi-annual.

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Effluent level within operational limits (if NO explain in comments):	Per Manufacturer	Health District will issue Notice to Correct Violation
Aerobic Mechanism appears to be functioning per manufactures specifications:	Per Manufacturer	Health District will issue Notice to Correct Violation
ATU Serviced per manufacturer's requirements including cleaning of applicable filter(s):	Per Manufacturer	N/A
Trash compartment solids accumulation within operational limits per manufacture (n/a – no trash compartment):	Per Manufacturer	Must be corrected by next routine inspection
Aerobic Chamber solids accumulation within operation limits per manufacture (n/a = Aerobic Chamber):	Per Manufacturer	Must be corrected by next routine inspection
Clarifying Chamber solids accumulation within operational limits per manufacturer (N/A = No Clarifying Chamber):	Per Manufacturer	Must be corrected by next routine inspection
Pumping Needed:	Per Manufacturer	Must be corrected by next routine inspection

## Aqua Test Inc. – Nibbler

Inspection frequency – Quarterly.

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Component appears to be functioning as intended	Visual Inspection	Health District will issue Notice to Correct Violation
ATU Settings verified as correct	Per Manufacturer	Health District will issue Notice to Correct Violation
Foaming action normal	Per Manufacturer	N/A
Aerobic mechanism / Air Pumps functioning as intended	Per Manufacturer	Health District will issue Notice to Correct Violation
Feed orifices cleaned	Per Manufacturer	N/A
Air Pump velocity normal	Per Manufacturer	Health District will issue Notice to Correct Violation
Air intake filter cleaned	Per Manufacturer	N/A
Alarm mechanism functioning as intended	Visual inspection	Must be corrected by next routine inspection
Unit vented properly	Per Manufacturer	Must be corrected by next routine inspection
Compartment 1 scum accumulation (inches, if other specify)	Per Manufacturer	N/A
Compartment 1 sludge accumulation (inches, if other specify)	Per Manufacturer	N/A
Pumping recommended	Per Manufacturer	N/A
Pumping needed	Per Manufacturer	Must be corrected by next routine inspection
Bulking noticed	Visual inspection	N/A
Approximate Gallons to be pumped (if needed) by certified pumper	Per inspection recommendation	N/A
Toxicity noticed	Visual inspection	N/A
Blower alarm mechanism functioning as intended	Visual inspection	Must be corrected by next routine inspection



## BioMicrobics, Inc. – FAST

Inspection frequency – Semi-annual.

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Aerobic Mechanism appears to be functioning per manufacturers specifications	Visual Inspection	Health District will issue Notice to Correct Violation
Cleaned filter element	Per Manufacturer	N/A
Unit audio/visual alarms functioning	Visual/physical inspection	Must be corrected by next inspection
Vent(s) and observation ports clear from obstructions	Visual/physical inspection	Must be corrected by next inspection
Vigorous boiling is occurring	Visual inspection	Must be corrected by next inspection
Effluent is visual clear	Visual inspection	N/A
The effluent smell is a damp, earthy odor (N/A = not observed)	Optional	N/A
pH level within normal operating range (6-9): N/A if not performed	Optional	N/A
Field sample performance results within operational limits (N/A if not performed)	Optional	N/A
The first compartment settling zone sludge accumulation is greater than 18 inches or is within 6 inches of the connection point between the settling zone and treatment zone. (If yes, pumping needed)	Test per manufacturer	Must be corrected by next inspection
The second compartment treatment zone sludge accumulation is less than 3 inches from the FAST unit. (If yes, pumping needed)	Test per manufacturer	Must be corrected by next inspection
Pumping Needed	Per Manufacturer	Must be corrected by next routine inspection

BioMicrobics, Inc. – BioBarrier

Inspection frequency – Semi-annual.

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Aerobic Mechanism appears to be functioning per manufacturers specifications	Visual Inspection	Health District will issue Notice to Correct Violation
Cleaned filter element	Per Manufacturer	N/A
Unit audio/visual alarms functioning	Visual/physical inspection	Must be corrected by next inspection
Vigorous boiling is occurring	Visual inspection	Must be corrected by next inspection
Effluent is visual clear	Visual inspection	N/A
The effluent smell is a damp, earthy odor (N/A = not observed)	Optional	N/A
pH level within normal operating range (6-9): N/A if not performed	Optional	N/A
Field sample performance results within operational limits (N/A if not performed)	Optional	N/A
Clean in place procedures performed	Per Manufacturer	N/A
Intense oxidative cleaning and citric acid cleaning performed	Per Manufacturer	N/A
Pumping Needed	Per Manufacturer	Must be corrected by next routine inspection

Delta Environmental Products, Inc. – Whitewater

Inspection frequency – Semi-annual.

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Unit alarms functioning	Visual Inspection	Must be corrected by next inspection
Aerobic Mechanism appears to be functioning per manufacturers specifications	Visual Inspection	Health District will issue Notice to Correct Violation
Air filter on air pump cleaned	Per Manufacturer	N/A
pH level within normal operating range (6-9): (Enter N/A if not performed):	Optional	N/A
Dissolved Oxygen within normal operating range (1.5 to 3.0 mg/L) (if less than 1.5 check blower and re-check)	Optional	N/A
Field sample performance results within operational limits (N/A if not performed)	Optional	N/A
Sludge in clarifier was broken up (N/A = not needed)	Per Manufacturer	N/A
30 minute settleable solids test result greater than 60%	Per Manufacturer	Must be corrected by next routine inspection
Pumping needed	Per Manufacturer	Must be corrected by next routine inspection

Enviro-Flo, Inc. – NuWater

Inspection frequency – Semi-annual.

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Effluent level within operational limits (if NO explain in comments)	Visual Inspection	Must be corrected by next inspection OR Health District will issue Notice to Correct Violation – Note dependent.
Trash tank solids accumulation exceeds 24 inches total depth from floor of tank	Per Manufacturer	Must be corrected by next routine inspection
Digester operating properly with even, rolling pattern of wastewater	Visual inspection	Must be corrected by next routine inspection
Digester settleable solids test resulted in less than 40% settleable solids (If No pumping required)	Per Manufacturer	Must be corrected by next routine inspection
Odor and clarity of effluent from clarifier within manufacturer specs	Optional	N/A
Low air alarm functioning properly (Temporarily unplug blower)	Per Manufacturer	Must be corrected by next routine inspection
Airlift sludge return tested and operating properly	Per Manufacturer	Health District will issue Notice to Correct Violation
ATU serviced per manufacturer's requirements including cleaning of applicable filter(s)	Per Manufacturer	N/A
Pumping needed	Per Manufacturer	Must be corrected by next routine inspection

Norweco, Inc. – Singular

Inspection frequency – Semi-annual.

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Service-Pro Control panel functioning as intended (if not currently operating, cycle unit with “on/off switch for verification)	Per Manufacturer	Health District will issue Notice to Correct Violation
Aerobic mechanism appears to be functioning per manufacturers specifications	Visual per manufacturer	Health District will issue Notice to Correct Violation
Aerator air delivery working properly	Visual per manufacturer	Health District will issue Notice to Correct Violation
Stainless steel aspirator shaft and aspirator tip cleaned	Per Manufacturer	N/A
Cleaned permitter air vent within air vent cover	Per Manufacturer	N/A
Removed, cleaned the biokinetic system	Per Manufacturer	N/A
Aerobic chamber settleable solids test grater than 75% (if yes then pumping needed)	Per Manufacturer	Must be corrected by next routine inspection
Pumping needed	Per Manufacturer	Must be corrected by next routine inspection

## Glendon BioFilter Technologies – Glendon BioFilter

Inspection frequency – Semi-annual first 2 years; annual minimum thereafter

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Equalized dosing	Flow Test utilizing approved manufacturers methods.	Health District will issue Notice To Correct Violation
Slope integrity maintained:	Visual	Health District will issue Notice to Correct Violation
Sludge accumulation (inches, if other specify):	Visual measurement	N/A
Pumping Needed:	Per Manufacturer	Must be corrected by next routine inspection
The static water level in the standpipe is greater than 30 inches below the inlet pipe	Visual measurement	Health District will issue Notice to Correct Violation.
The water level in the standpipe is less than six inches below the top of the pipe.	Visual measurement	Will be monitored for risk of failure.
The system was in a dosing cycle during the inspection	Visual	N/A

Orenco Systems Inc., - AdvanTex

Inspection frequency – Semi-annual.

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Average squirt height (if performed) (Feet, if other specify):	Visual evaluation	N/A
Turbidity - NTU - (limit >15)	Optional	N/A
Dissolved Oxygen - mg/L - (limit 2-6)	Optional	N/A
pH (limit 6-9)	Optional	N/A
Sampling results within limits	Optional	N/A
Recirculating Splitter Valve Functioning:	Visual Evaluation	Health District will issue Notice To Correct Violation
Recirculating Splitter Valve Cleaned:	Manual cleaning	N/A
Lateral lines flushed:	Manual flushing of lines	N/A
Bridging or Ponding on the textile sheets	Visual Evaluation	N/A
Textile sheets cleaned	Manual Cleaning	N/A
Pod bottom cleaned	Manual Cleaning	N/A
Unit vented properly:	Visual Evaluation	Health District will issue Notice To Correct Violation
Biotube filter cleaned	Manual Cleaning	N/A
Floats set and functioning properly:	Visual Evaluation	Health District will issue Notice To Correct Violation
Timer settings correct	Visual evaluation	Health District will issue Notice To Correct Violation
Recirculating Pump Amps	Optional	N/A
Discharge Pump Amps	Optional	N/A
Recirculation ratio correct	Optional	N/A

## Loweridge Onsite technologies, LLC – LOWeFLOW

Inspection frequency – Semi-annual.

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Ponding was noted in the media	Visual evaluation	Will be monitored for risk of failure.
Effluent is visual clear	Visual evaluation	N/A
The effluent smell is a damp, earthy odor (N/A = not observed)	Physical evaluation	N/A
LOWeFLOW pressure gauge 1 reading	Field verification	N/A
LOWeFLOW pressure gauge 2 reading	Field verification	N/A
LOWeFLOW pressure gauge 3 reading	Field verification	N/A
Solenoids S1, S2, S3, S4 & S5 functioning? (If NO, include in notes which solenoid(s) are not functioning)	Field verification	Health District will issue Notice To Correct Violation
Greater than 50% solids in the septic tank 1 <sup>st</sup> compartment? (if yes, indicate that the septic tank needs pumping)	Field verification	Must be corrected by next routine inspection
Greater than 6 inches of sludge in the recirculating tank? (If yes, indicate that the recirculating tank needs pumping)	Field verification	Must be corrected by next routine inspection
Greater than 6 inches of sludge in the clarifying/pump tank? (If yes, indicate that the recirculating tank needs pumping)	Field verification	Must be corrected by next routine inspection
There are wet spots noted in the dispersal media	Visual inspection	Will be monitored for risk of failure.
OSCAR pressure gauge 1 reading	Visual Evaluation	N/A
OSCAR pressure gauge 2 reading	Visual Evaluation	N/A
OSCAR pressure gauge 3 reading	Visual Evaluation	N/A
OSCAR filter disks cleaned	Physical inspection	N/A



Loweridge Onsite technologies, LLC – OSCAR II, & III

Inspection frequency – Semi-annual.

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Ponding was noted in the media	Visual evaluation	Will be monitored for risk of failure.
Solenoids S1, S2, S3, S4 & S5 functioning? (If NO, include in notes which solenoid(s) are not functioning)	Field verification	Health District will issue Notice To Correct Violation

## Disinfection: Chlorine

### Inspection frequency: Semi - Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection.

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Disinfection Agent Present:	MUST BE PRESENT	Health District will issue Notice To Correct Violation

## Disinfection: Ozone

### Inspection frequency: Semi - Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection.

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Alarm mechanism functioning as intended:	Visual inspection of mechanical alarm device – visual and audible required	Must be corrected by next routine inspection
Ozone sensor working properly:	Visual inspection of mechanical device – per manufacturer	Health District will issue Notice To Correct Violation

## Disinfection: Ultraviolet

### Inspection frequency: Semi - Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection.

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Alarm mechanism functioning as intended (N/A if UV decommissioned):	Visual inspection of mechanical alarm device – visual and audible required	Must be corrected by next routine inspection
UV Bulb cleaned (N/A if UV decommissioned):	Per manufacturer	N/A
Disinfection Unit light on (N/A if UV decommissioned):	Visual inspection	Health District will issue Notice To Correct Violation

## Drainfield: Gravity (including beds)

### Inspection frequency: Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection.

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Ponding Present? If YES explain in comments.	Check monitoring ports if present	N/A
One or more laterals have been turned off (if yes explain in comments):	Notify Health District if a lateral was turned off	N/A
One or more laterals have been turned off for a period greater than 12 months	Notify Health District if a lateral was turned off for greater than 12 months	The Health District will identify the system as non-conforming per the requirements of Policy 27.

## Drainfield: Pressure, Pressure Beds & Sand Lined Trench / Bottomless Sandfilter

### Inspection frequency: Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection except for average squirt height (optional).

**Note:** This is required any time the valves have been adjusted or a pump has been replaced.

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

Inspection Criteria:	Inspection Minimum:	Corrective Action:
Lateral lines flushed	Open lateral end cleanouts and flush system by running pump	N/A
Average squirt height (if performed) (Feet, if other specify):	Measure from lateral distribution line	Must be corrected by next routine inspection
Ponding Present? If YES explain in comments.	Check monitoring ports if present	N/A
One or more laterals have been turned off (if yes explain in comments):	Notify Health District if a lateral was turned off	N/A
One or more laterals have been turned off for a period greater than 12 months	Notify Health District if a lateral was turned off for greater than 12 months	The Health District will identify the system as non-conforming per the requirements of policy 27.

**NOTE:** The squirt height difference must not exceed 21% (10% flow difference) between orifices on any one lateral. The squirt height difference over the entire system must not exceed 32% (15% flow difference).

## Drainfield: Drip

### Inspection frequency: Semi - Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection.

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Drip System flushed:	Flush system per design requirements	N/A
Filters cleaned (N/A = No Filter Present):	Manually clean filters	N/A
Pressure Gauges indicate normal operation:	Visual reading	Must be corrected by next routine inspection
Are solenoid valves functioning (NA = Manual Flush):	Cycle through flush operation	Must be corrected by next routine inspection
Flow meter reading (in gallons (if return flow meter present place results in brackets):	Visual reading	N/A
Vacuum relief valves (vents) functioning correctly	Cycle system to evaluate function of valves	Must be corrected by next routine inspection
Wet dispersal area(s) due to chimney effect:	Visual observation	Health District will issue Notice to Correct Violation

## Media Filter: Mound

### Inspection frequency: Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection except for average squirt height (optional).

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Slope integrity maintained:	Visual inspection of slope	Health District will issue Notice To Correct Violation
Lateral lines flushed	Open Lateral End Cleanouts and flush system by running pump	N/A
Average squirt height (if performed) (Feet, if other specify):	Measure from lateral distribution line	Must be corrected by next routine inspection
Ponding at sand media/soil interface (if applicable) or top of sand media dispersal area (if yes provide comments, N/A if no ports)	Viewed through monitoring ports	Health District will issue Notice To Correct Violation

**NOTE:** The squirt height difference must not exceed 21% (10% flow difference) between orifices on any one lateral. The squirt height difference over the entire system must not exceed 32% (15% flow difference).

## Media Filter: Recirculating Sand Filter

### Inspection frequency: Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection except for:

1. Average squirt height (optional)

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Lateral lines flushed	Open lateral end cleanouts and flush system by running pump	N/A
Average squirt height (if performed) (Feet, if other specify):	Measure from lateral distribution line	Must be corrected by next routine inspection
Ponding at sand media/soil interface (if applicable) or top of sand media dispersal area (if yes provide comments, N/A if no ports)	Viewed through monitoring ports	Health District will issue Notice To Correct Violation

**NOTE:** The squirt height difference must not exceed 21% (10% flow difference) between orifices on any one lateral. The squirt height difference over the entire system must not exceed 32% (15% flow difference).



## Media Filter: Sand Filter

### Inspection frequency: Annually Minimum

All checklist items contained within the component must be inspected and reported for each required inspection except for average squirt height (optional).

These items may be skipped on a complaint or follow-up inspection, however if any deficiencies are identified for any of the questions they must be identified as such on the report.

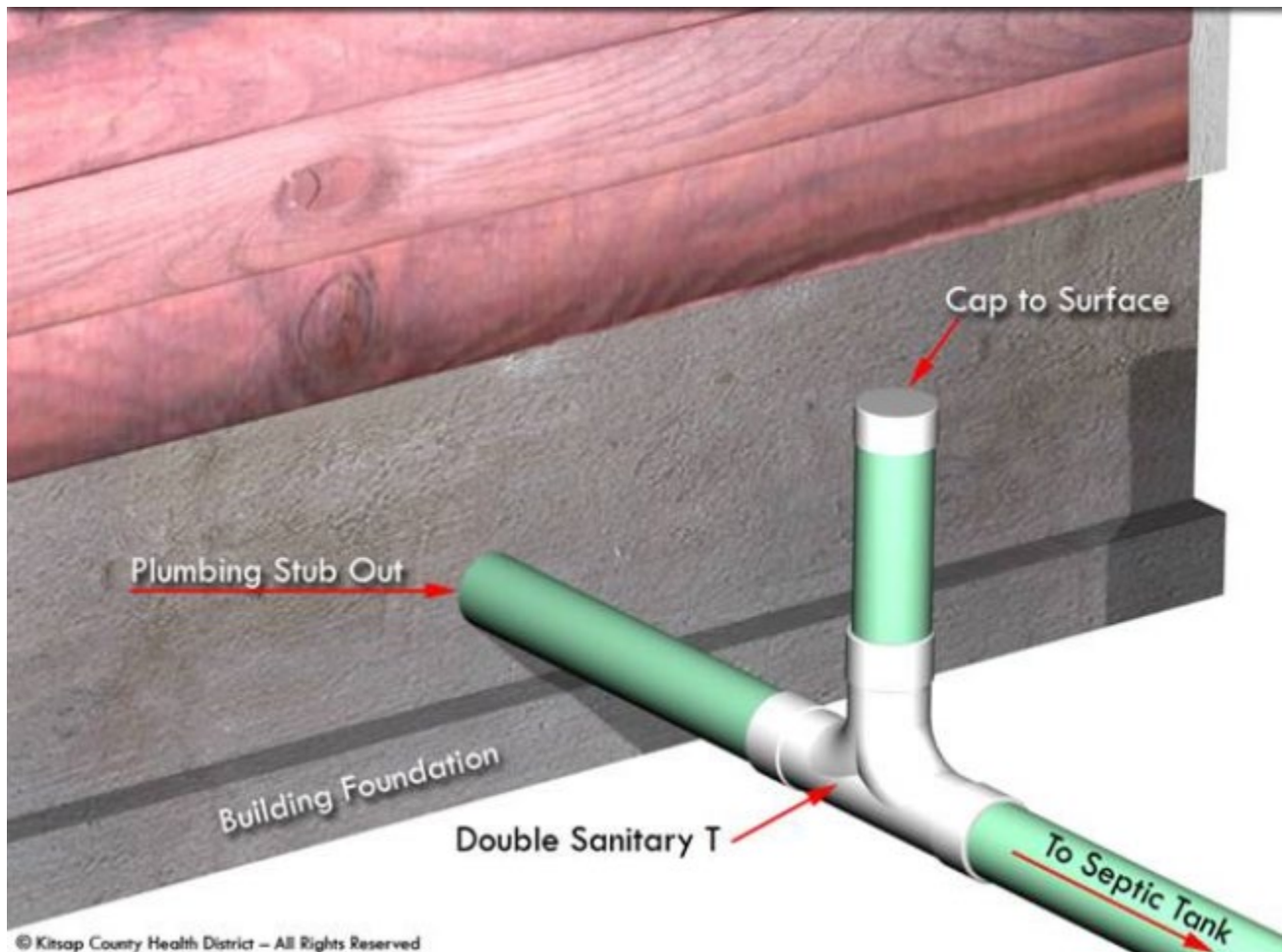
### Inspection Minimums & Corrective Action Requirements

<b>Inspection Criteria:</b>	<b>Inspection Minimum:</b>	<b>Corrective Action:</b>
Lateral lines flushed	Open lateral end cleanouts and flush system by running pump	N/A
Average squirt height (if performed) (Feet, if other specify):	Measure from lateral distribution line	Must be corrected by next routine inspection
Is there ponding present in the lower observation port	Visual observation	Health District will issue Notice To Correct Violation
Is there ponding present in the upper observation port	Visual observation	Must be corrected by next routine inspection

**NOTE:** The squirt height difference must not exceed 21% (10% flow difference) between orifices on any one lateral. The squirt height difference over the entire system must not exceed 32% (15% flow difference).

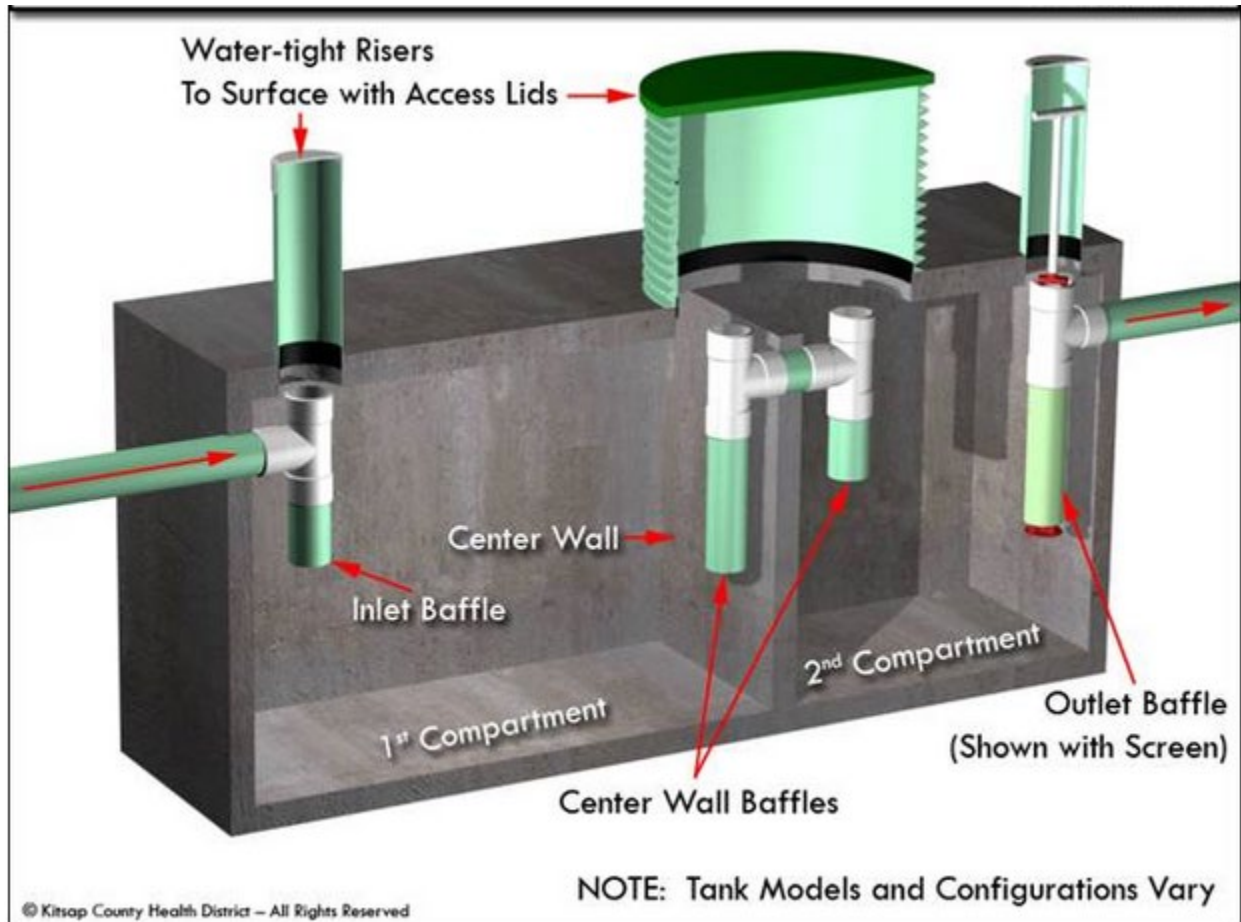
## COMPONENT CONSTRUCTION EXAMPLES

### Cleanouts



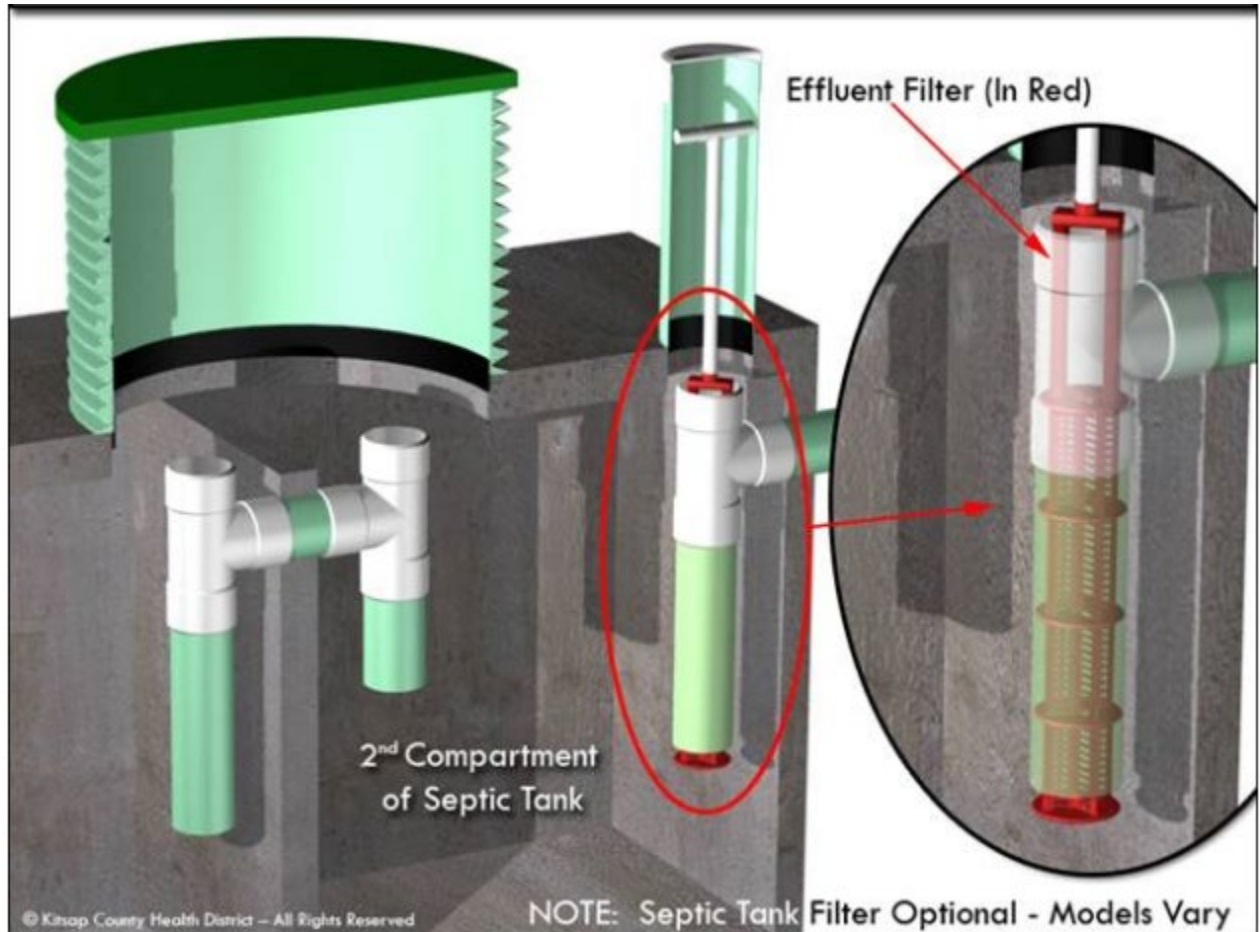
**NOTE:** The cap to the surface must be removable.

## Septic Tanks



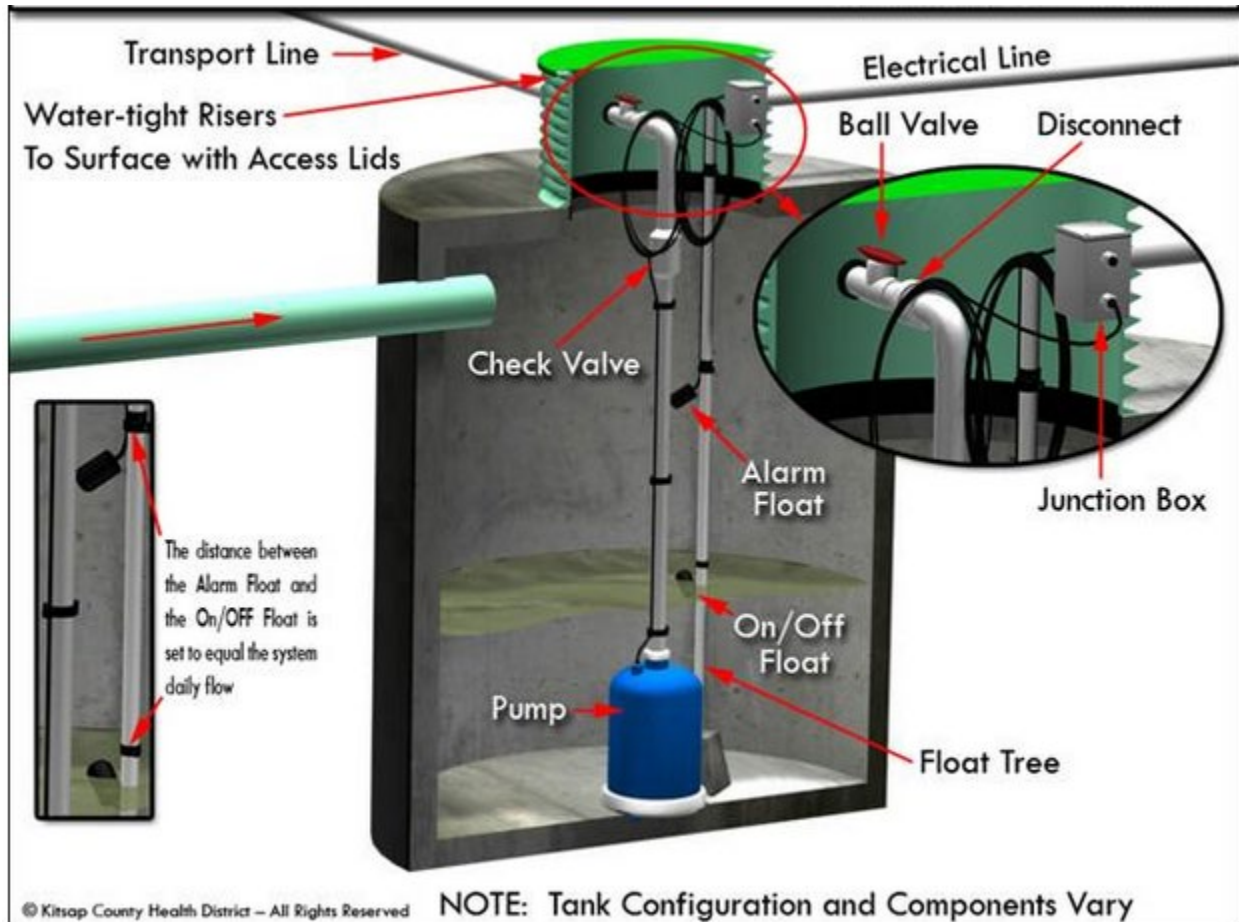
**NOTE:** The effluent screen in the outlet baffle is optional.

## Septic Tank Effluent Filter



**NOTE:** The effluent screen in the outlet baffle is optional.

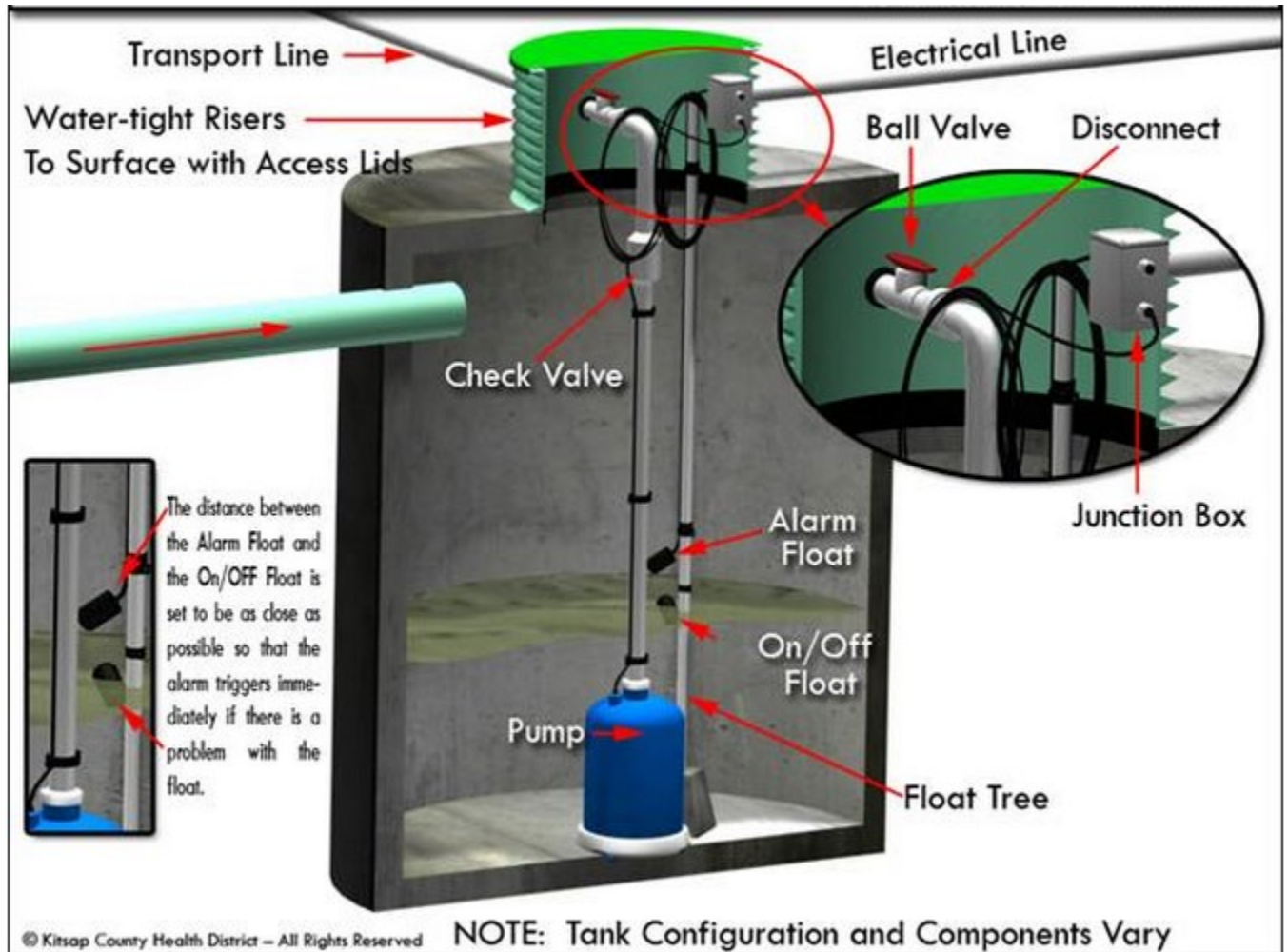
## Pump Tank - Time Dosed



**NOTE:** If the drainfield is located below the pump tank an anti-siphon valve must be installed.

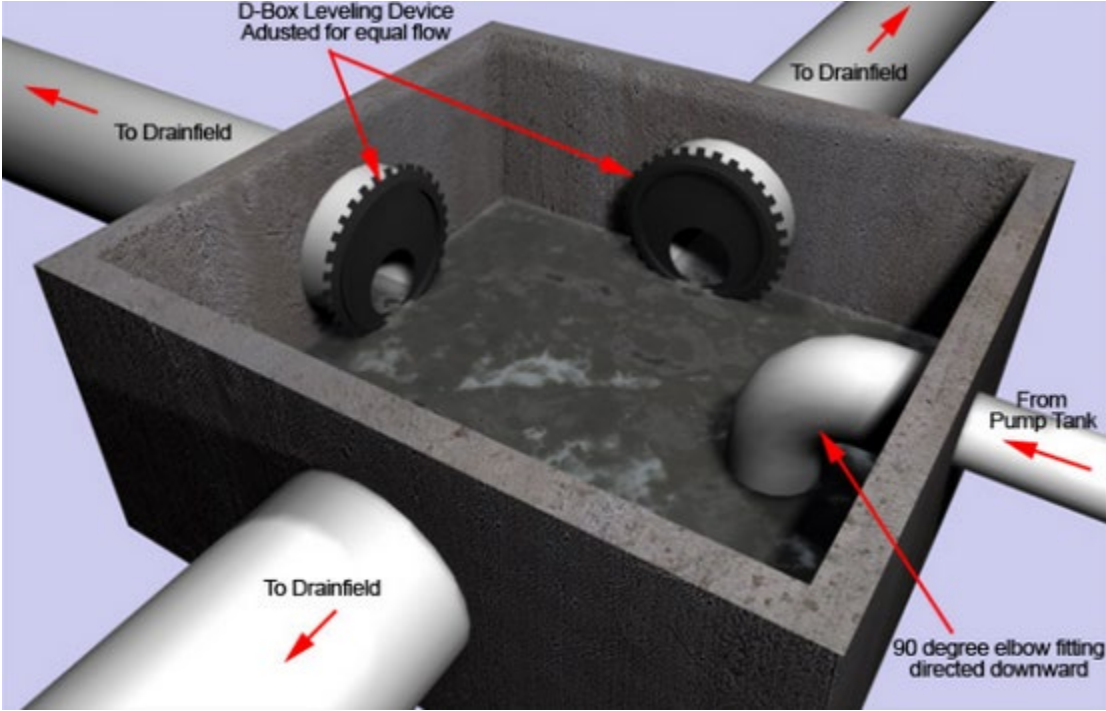


## Pump Tank - Demand Dose

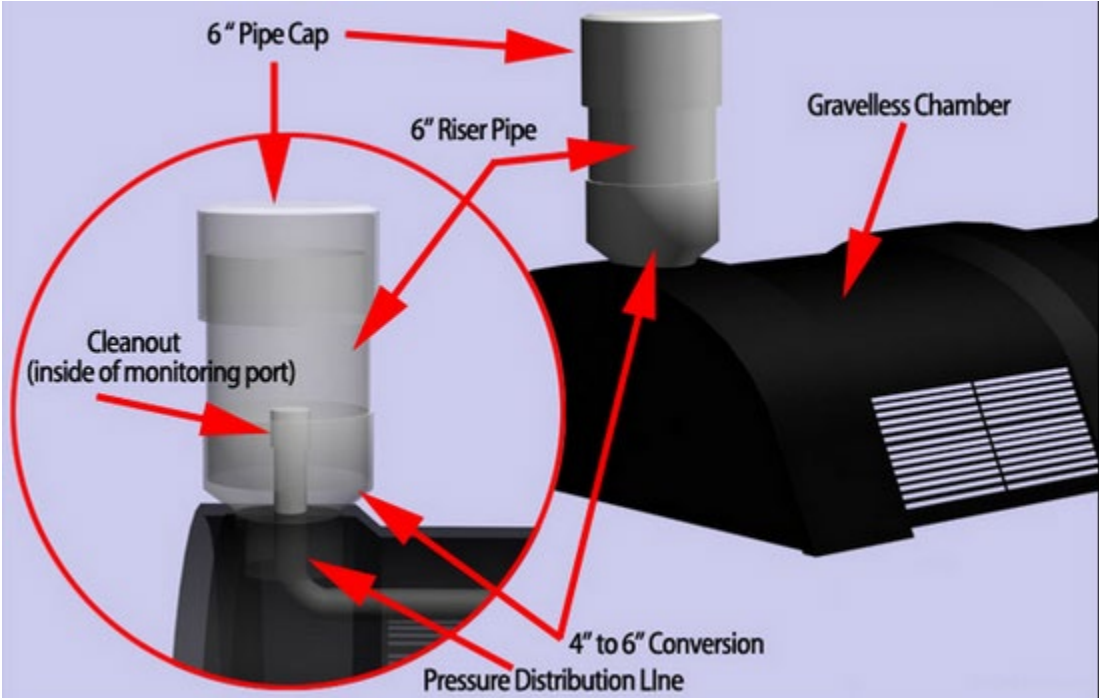


**NOTE:** If the drainfield is located below the pump tank an anti-siphon valve must be installed.

# Distribution Box



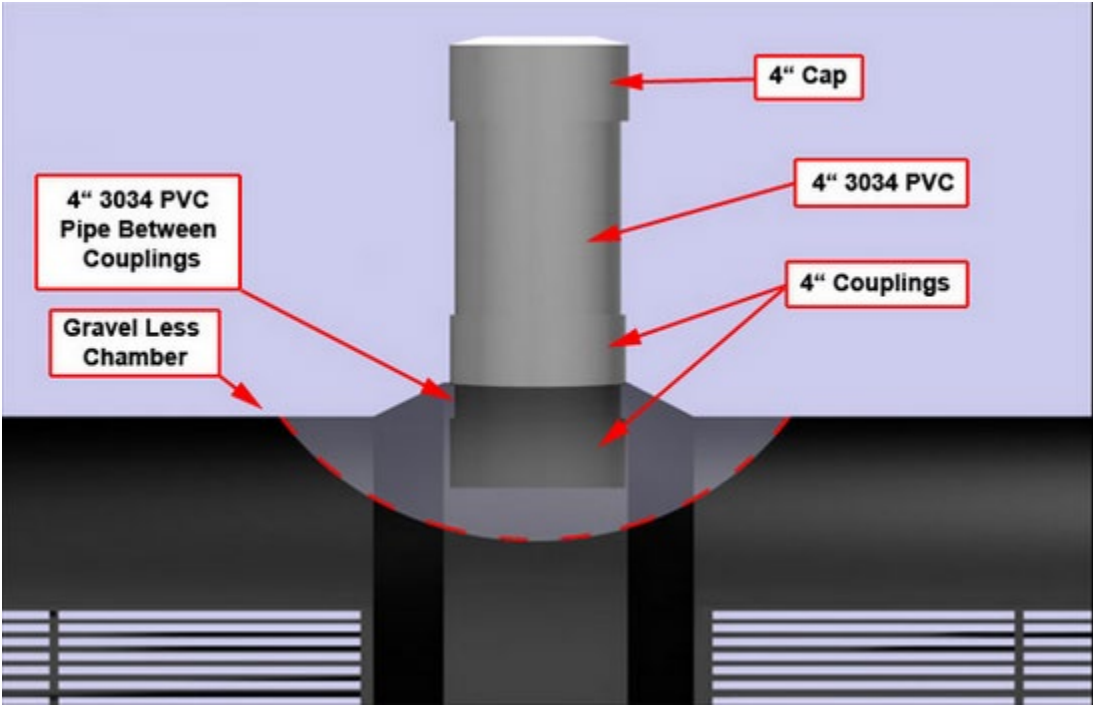
# Pressure Distribution Cleanout/Monitoring Port Combo



**NOTE:** The cap to the surface must be removable.

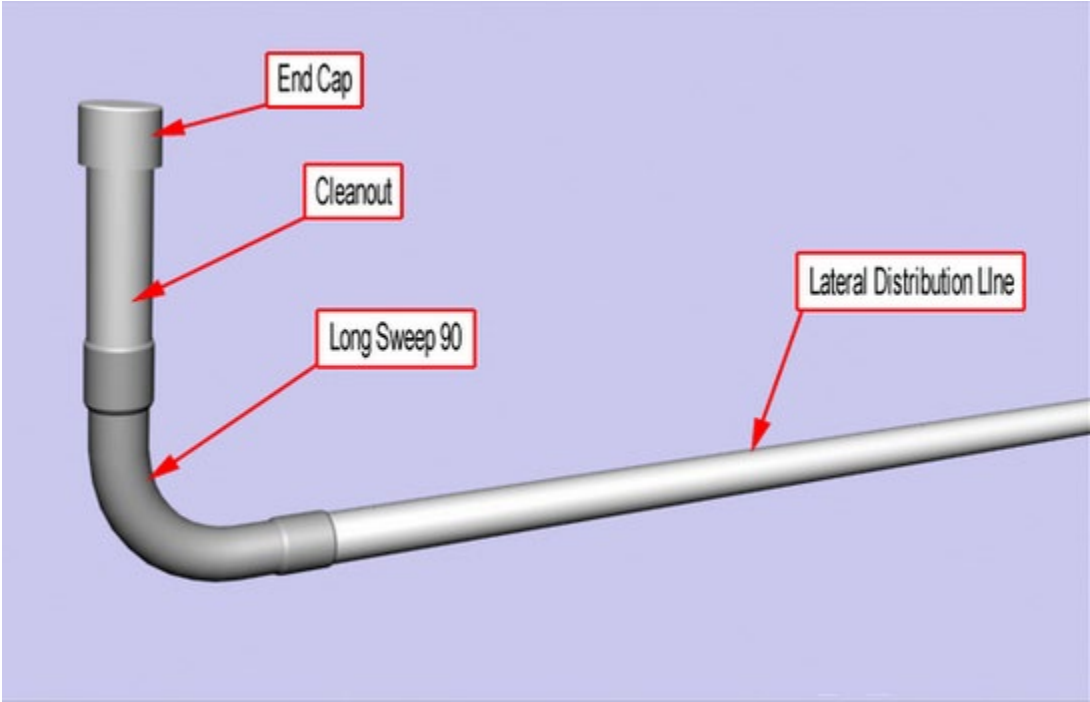


# Gravelless Chamber Monitoring Port



**NOTE:** The cap to the surface must be removable.

# Pressure Distribution Cleanout

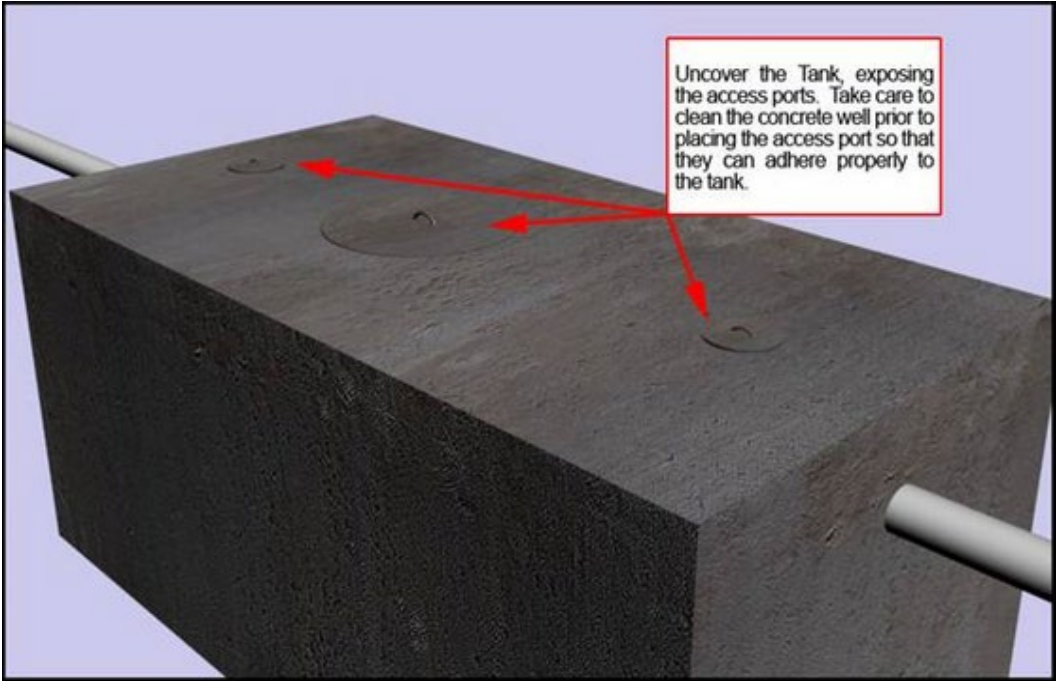


**NOTE:** The cap to the surface must be removable.

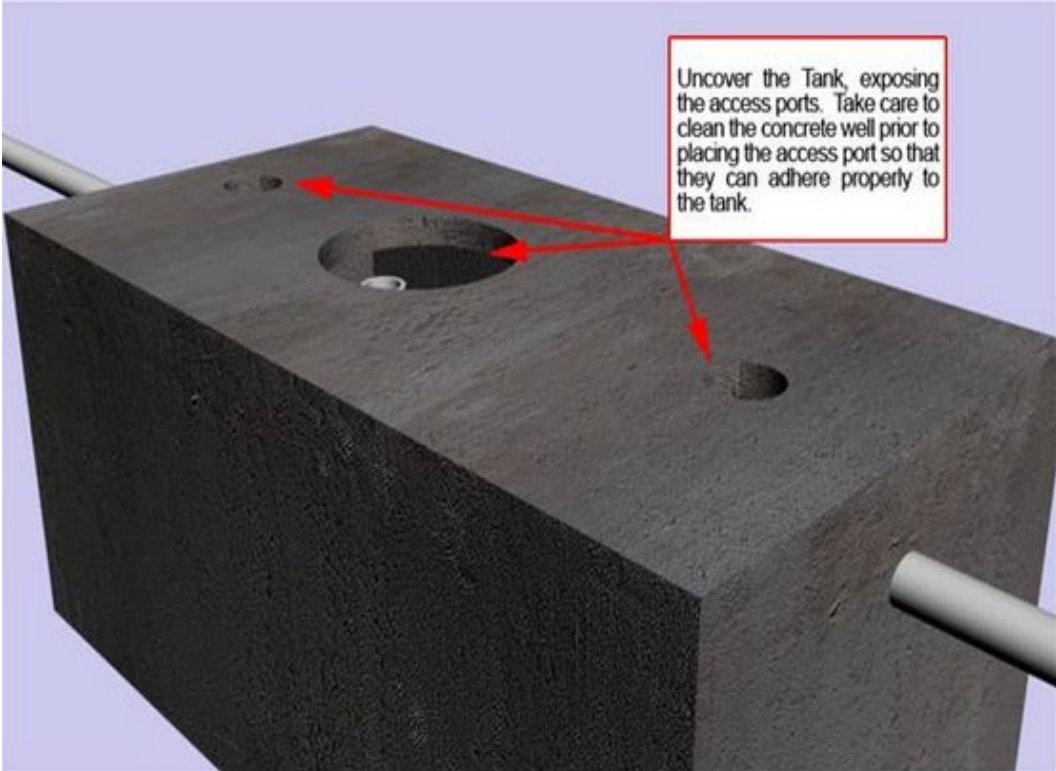
# RETROFITTING COMPONENTS

## Tank Risers

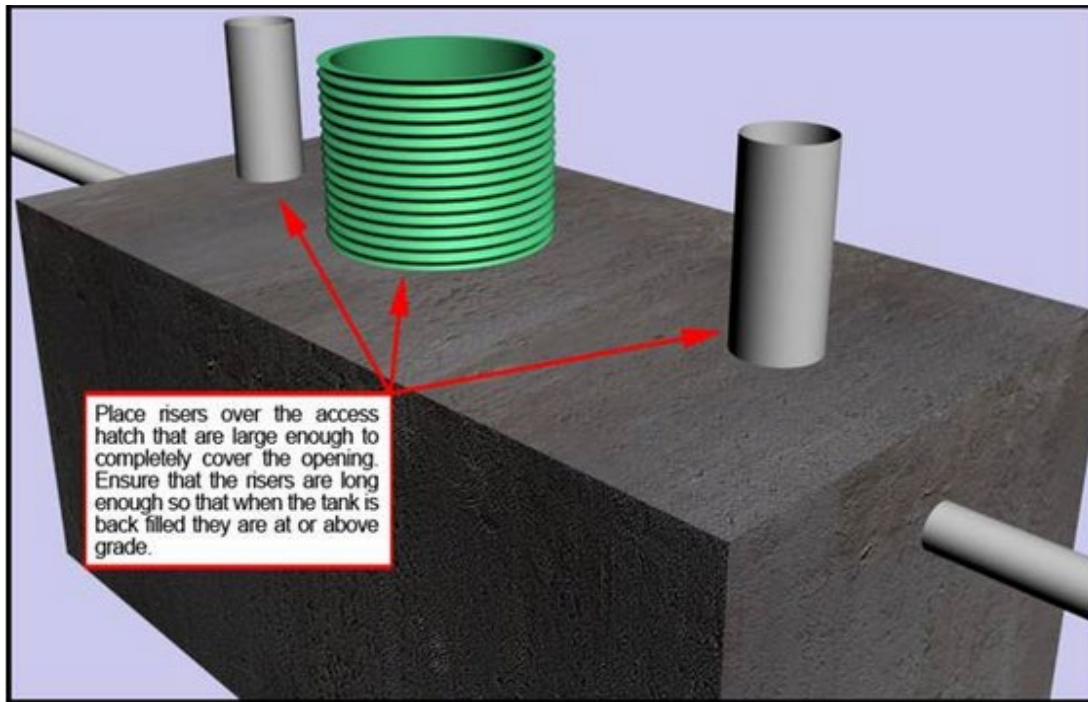
Step 1



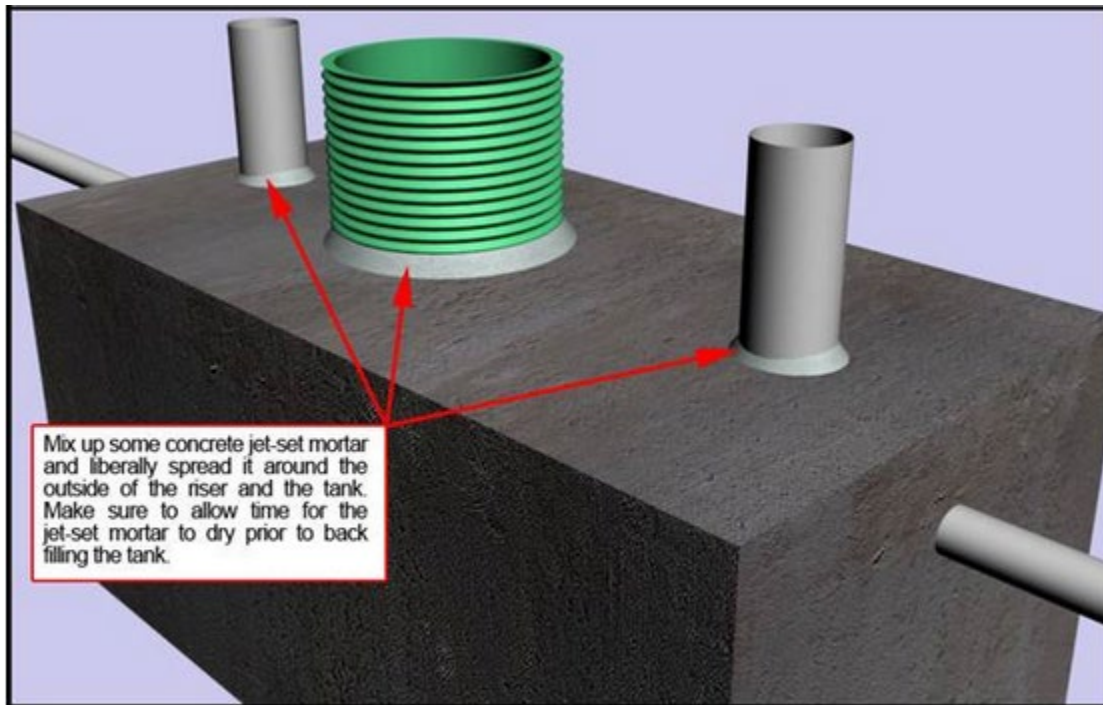
Step 2



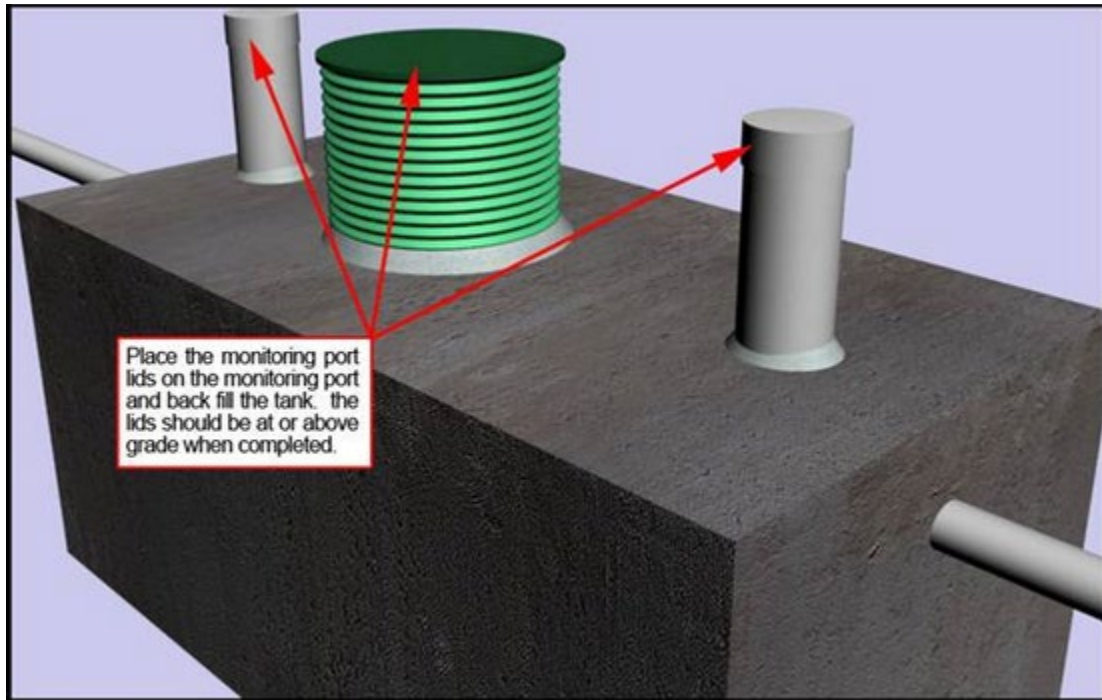
### Step 3



### Step 4

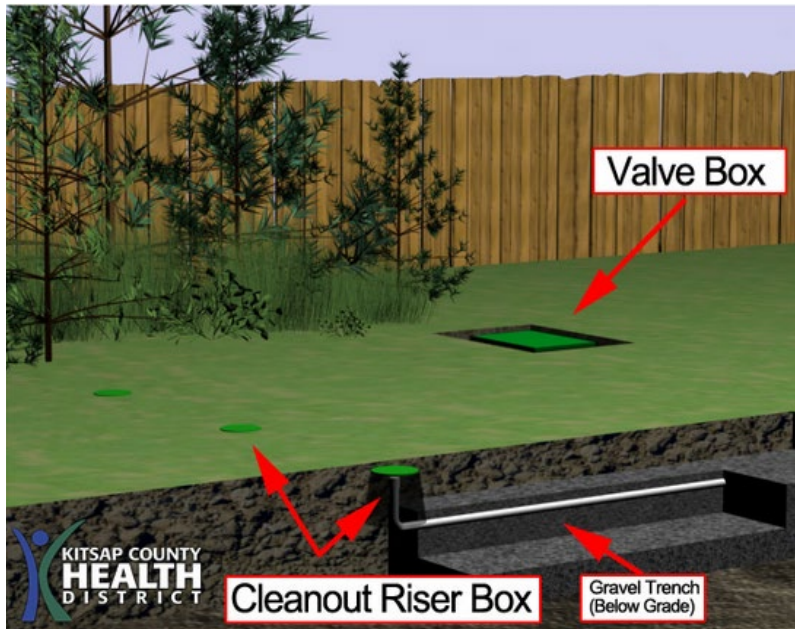


Step 5

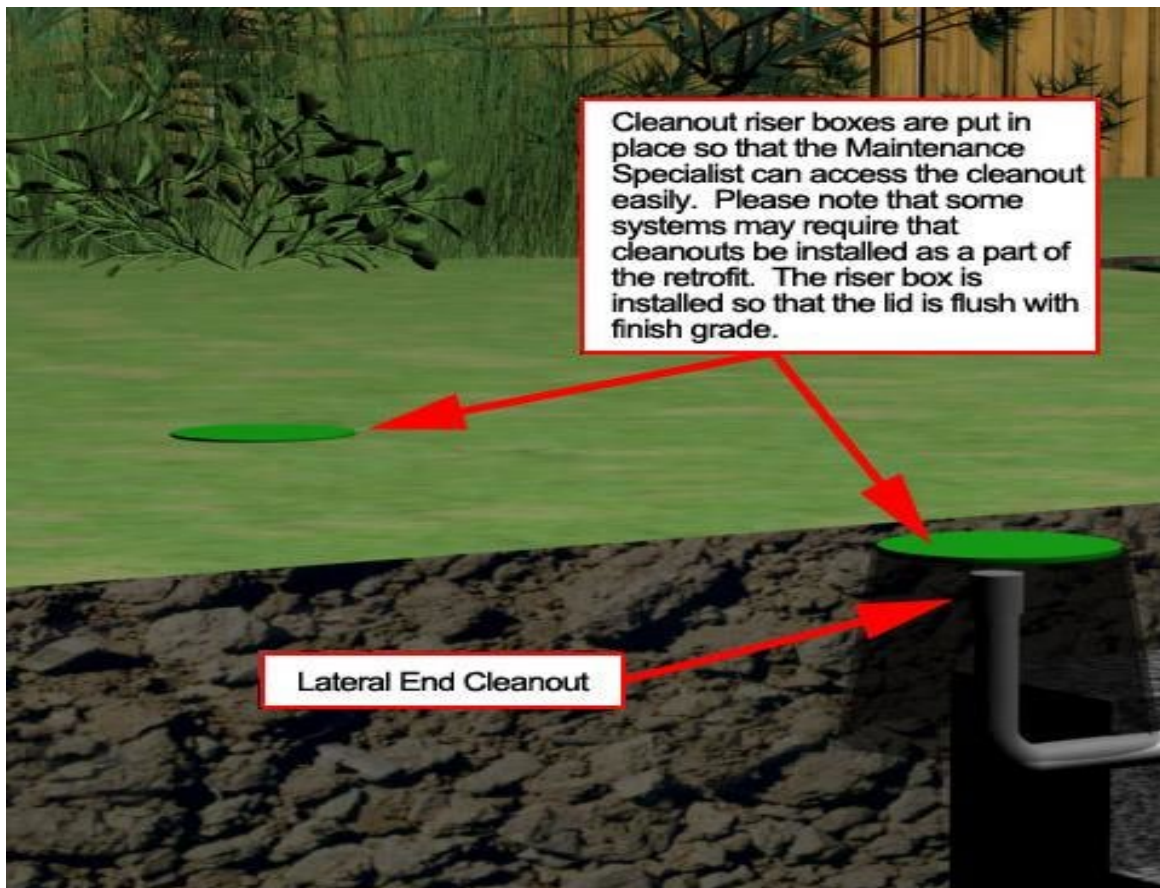


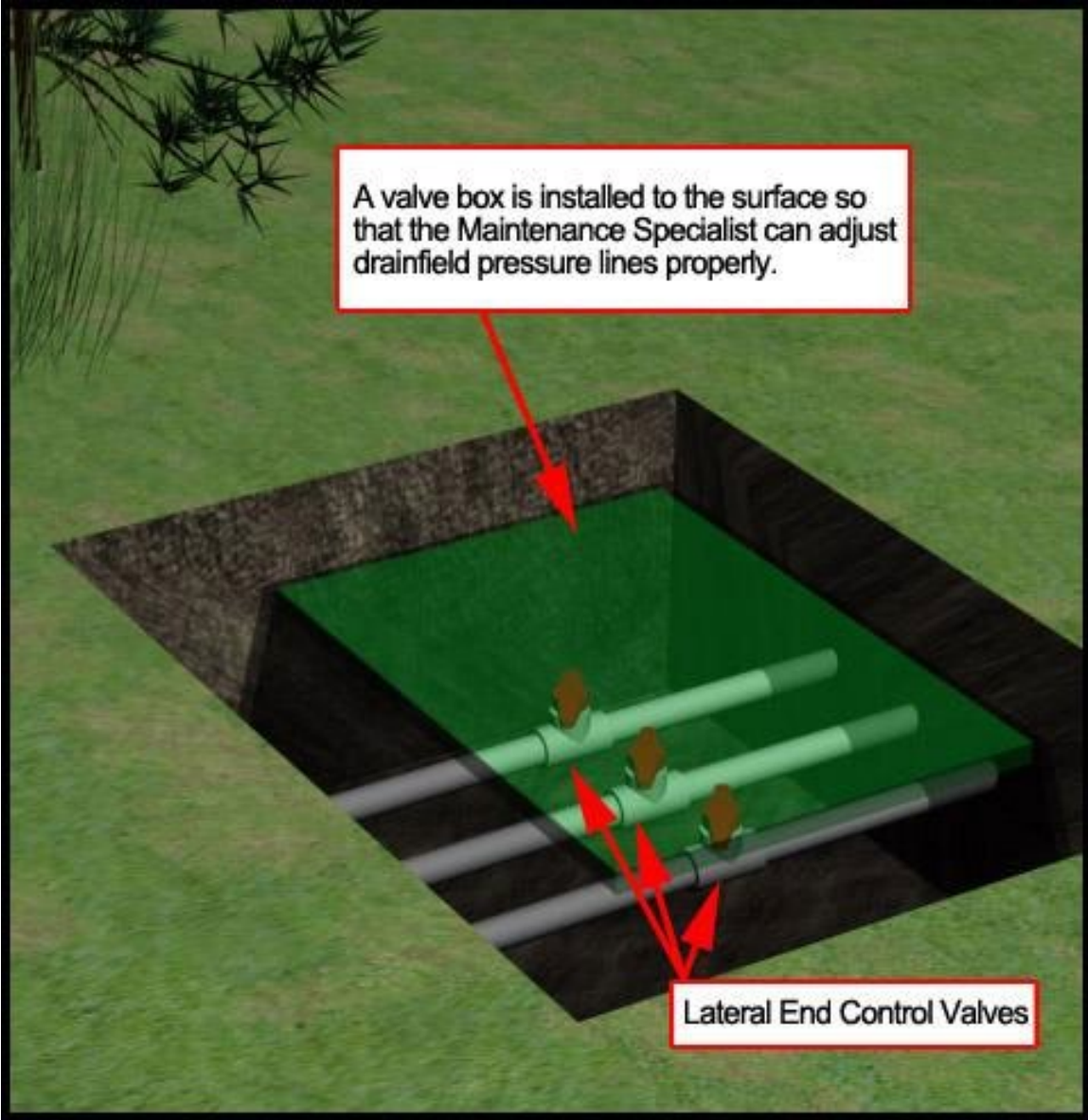


## Gravel Drainfields



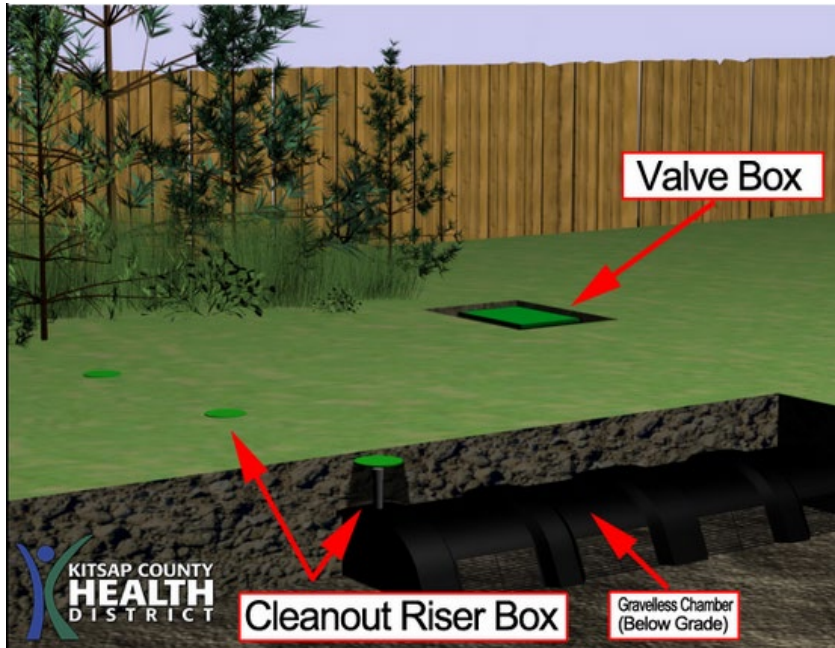
**NOTE:** The lids to the surface must be removable.







## Gravelless Drainfields



NOTE: The lids to the surface must be removable.

