ANUA

Puraflo®

Peat Fiber Biofilter

Operation and Maintenance Manual

Only modules bearing the NSF® logo and designated P150N*XX are certified to NSF/ANSI Standard 40

Call: **336-547-9338** or visit: **anuainternational.com**

Puraflo® Peat Fiber Biofilter

Operation and Maintenance Manual

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1.0 General Description of System

The Puraflo peat biofilter is an advanced secondary treatment system that purifies septic tank effluent to an extremely high degree before final dispersal.

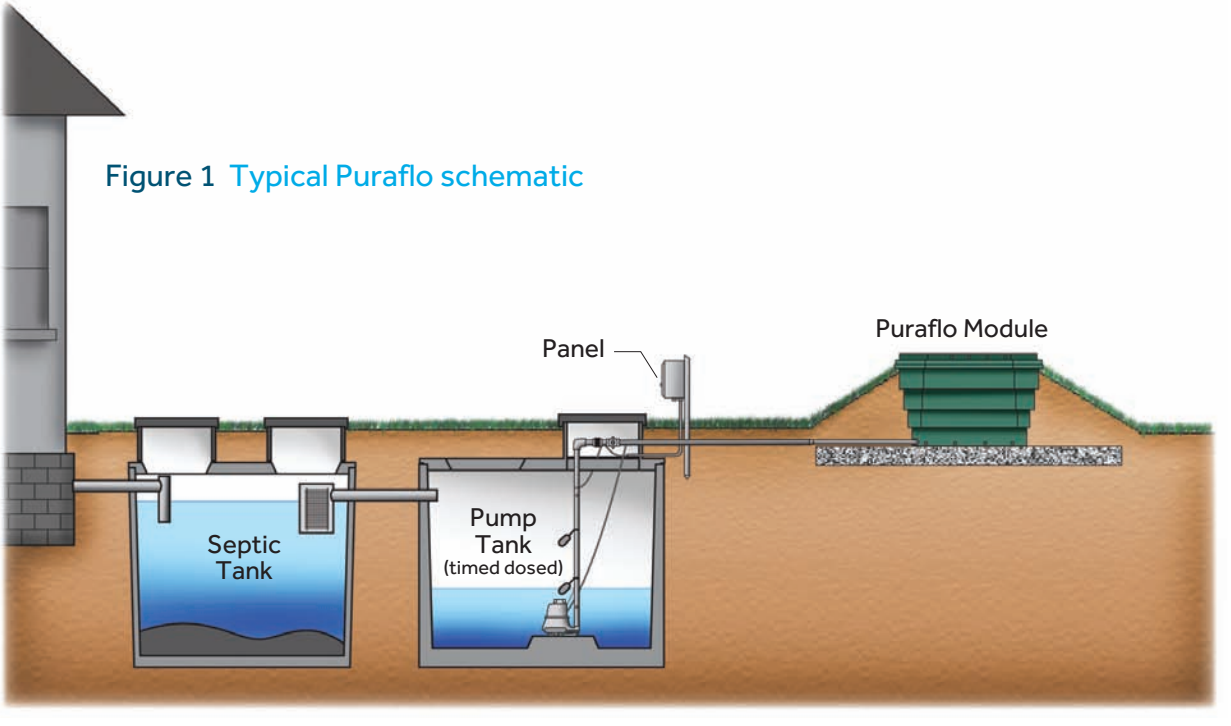
A typical Puraflo peat biofilter system consists of:

- Septic tank with a commercially-rated effluent filter, with 1/32" filtration, connected to the tank outlet pipe
- Dosing tank and effluent pump, or siphon, to accommodate dosing of the septic tank effluent onto the peat fiber media
- Biofilter modules where advanced treatment occurs due to the physical, chemical and biological processes that are optimized in the peat fiber media.
- Site specific, final effluent dispersal system

The filtered septic tank effluent is collected under gravity in the pump tank. A timed dosing system is activated by a programmable timer or a siphon-dose system triggers, which pumps the effluent through a flow splitting inlet manifold located at the base of the treatment modules. An orifice plate is located inside the top of each inlet manifold which allows the flows to be split equally and fed simultaneously to each biofilter module. The inlet manifold is connected to the base of the biofilter module and is fed upwards to a rectangular distribution grid located 6 inches below the top of lid. The effluent percolates laterally and vertically through the depth of the peat fiber treatment media and emerges as a clear, innocuous liquid from the base of the system. The treated effluent is then collected and dispersed.

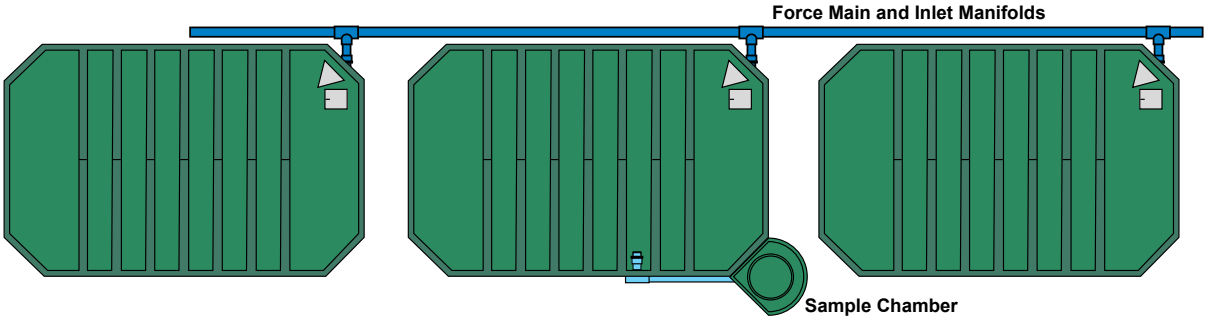
The Puraflo peat fiber biofilter system has been rigorously tested over the past three decades, in both a certification setting and a field setting. Puraflo has been tested as part of USEPA National Onsite Demonstration Projects, State Onsite Demonstration Projects, and per state/local regulatory requirements. Testing has demonstrated Puraflo's ability to provide high level treatment for biological, chemical, and physical constituents. Puraflo is a modular system with each module rated according to application.

Figure 1 Typical Puraflo schematic



1.1 Type A and Type B Installation

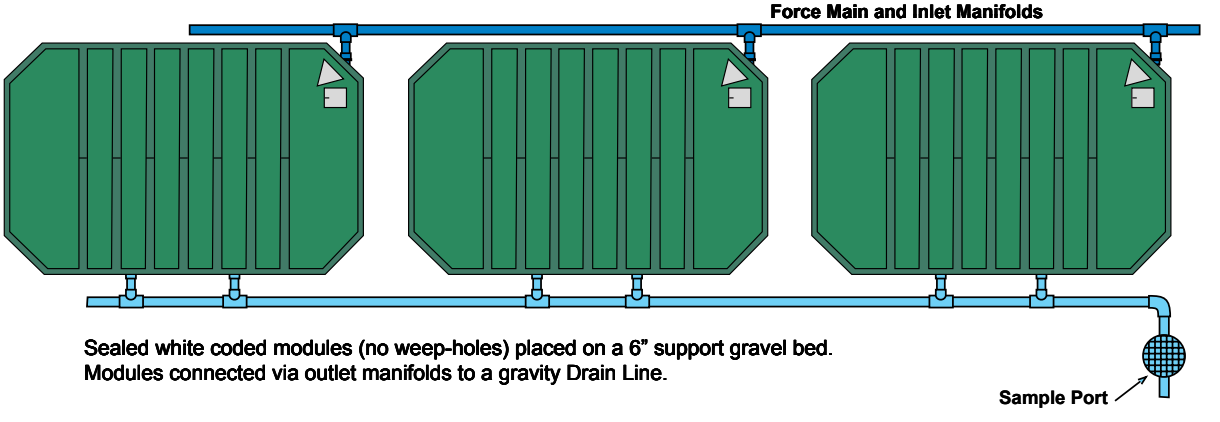
Type A – Pad Installation



Blue coded modules with weep holes and one green coded module with sampling chamber, drain into a stone pad for final treated effluent disposal. Pad dimensions can be selected to match site conditions and modules can be installed side-by-side as well as end-to-end (as shown above)

NOTE:
In-ground pad (trench) configuration.

Type B – Piped Outlet Installation

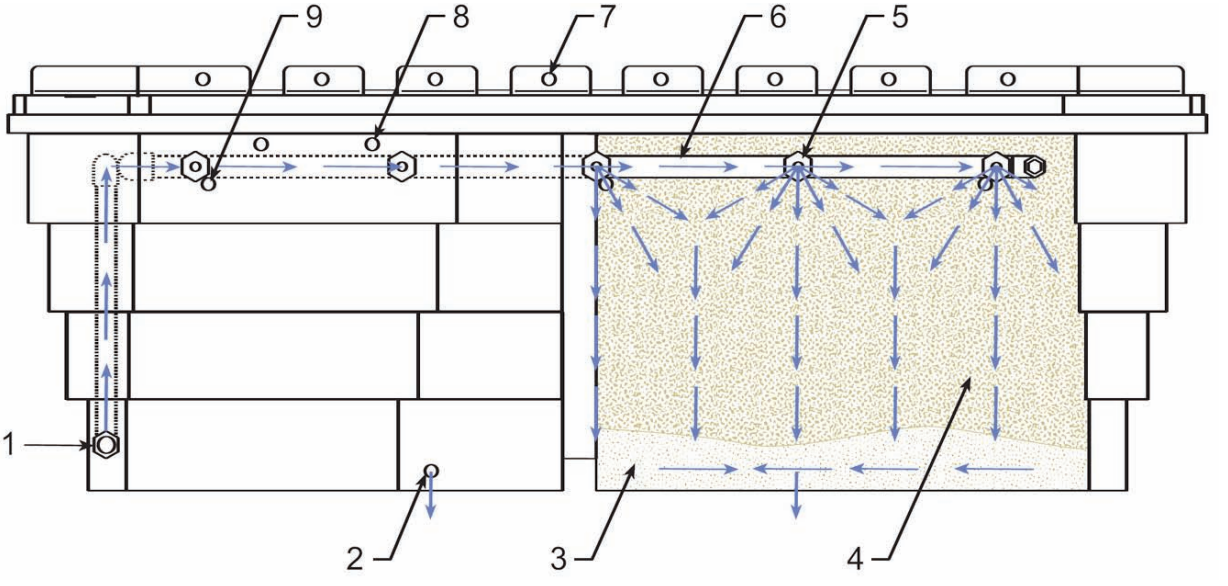


NOTE:
Final dispersal separate from modules configuration.

1.2 Specification of Puraflo Module

Max Treatment Capacity per Module: 150 gpd
Module Length: 7' 1"
Module Height: 2' 6"
Module Width: 4' 6"
Module Weight: ~1800 lbs

Item	Description
1	Inlet
2	Outlet Port
3	#5 Stone
4	Peat Fiber Media
5	Distribution Orifice
6	Distribution Grid
7	Vent Holes
8	Rope Handle Holes
9	Stabilizer Bars



2.0 Basic Operation and Maintenance Requirements

At each Puraflo inspection, the Authorized Service Provider shall (at a minimum) perform the activities listed below:

2.1 Observe and Monitor

- Effluent level in all tanks
- Septic tank outlet filter or screened pump vault for clogging
- Watertightness of tanks, risers and pipe connections at tanks
- Operation of pumps, floats valves, electrical controls and alarms
- Pumping frequency from impulse counters and elapsed run time meters
- Peat modules for any structural damage, accessibility, adequate ventilation, excess odors, insect or other pest infestations
- Vegetative growth over the drainfield
- Drainfield area for surfacing of the effluent
- Sample of peat biofilter effluent collected form the sampling point to check for effluent clarity and odor (note: peat biofilter effluent may have a brackish to straw color from the humic and fulvic acids naturally present in the peat fiber media)

2.2 Measure and Report

- Sludge and scum levels in the septic tank
- Sludge level and grease presence in the pump tank
- Pump delivery rate (drawdown test)
- Dosing volume and measure or calculate average pump run time

2.3 Notification of Service/Repair Requirements

The Authorized Service Provider shall alert the system owner in a timely fashion of needed maintenance or repair activities including, but not limited to, landscaping, tank sealing, tank pumping, pipe or control system repairs, media replacement, and adjustments to any other component.

3.0 Annual Maintenance Checklist

System Component	Description
Septic Tank	Confirm access ports are secure.
	Confirm effluent filter is in place.
	Clean effluent filter.
	Confirm satisfactory condition of risers.
	Confirm satisfactory condition of pipe.
	Record wastewater level in tank.
	Record sludge level in tank.
	Record scum level in tank.
	Confirm watertightness of tank connections.
	De-sludge Septic Tank (if required).
Pump Tank	Confirm access ports are secure.
	Record wastewater level in tank.
	Confirm watertightness of tank.
	Confirm satisfactory condition of risers.
	Confirm satisfactory condition of pipe connections.
Pump	Confirm pump is accessible and removable.
	Confirm pump is operating satisfactorily.
	Confirm floats are operating satisfactorily.
	Confirm pump valves are operating satisfactorily.
	Record the condition of floats, control panel and alarms
	Record pump readings.
	Record Elapsed Time meter Readings.
	Examine and Record Timer Settings.
Control Panel	Record the condition of control panel and alarm.
	Record pump readings.
	Record Elapsed Time meter Readings.
	Examine and Record Timer Settings.
	Confirm alarm is working.
Sample Chambers	Confirm satisfactory condition of sample chamber.
	Extract effluent sample.
	Conduct odor and visual inspection of sample.
Piping	Confirm satisfactory condition of force main.
	Confirm satisfactory condition of manifold.
	Confirm satisfactory condition of orifice plates/connections.
Peat Fiber Media	Record the condition of the peat.
	Examine peat for insect or pest infiltration.
	Check for evidence of continuous ponding on media surface.
	Confirm distribution grid is level.
	Confirm even distribution of wastewater within modules.
	Confirm that the ventilation holes around top of module are free from obstruction.
Drainfield	Check for evidence of surface water diversion.
	Check for evidence of ponding/surfacing of effluent.
	Check for excessive vegetative growth over drainfield.
	Confirm stability of percolation area.

4.0 Periodic Removal of Solids

A well maintained septic tank is essential for most on-site treatment systems as the septic tank provides the first step in wastewater treatment (also called primary treatment). During use, the heavier solids settle to the bottom forming a sludge layer while the lighter solids, greases and oils float to the top to form a scum layer. The anaerobic conditions created in the septic tank by the scum layer allow anaerobic and facultative micro-organisms to break down (feed on) and reduce the sludge and scum volume. In this manner approximately 40 percent of sludge and scum volume can be reduced. However, the remaining solids accumulate in the tank and must be pumped out on a regular basis.

The septic tank (and occasionally the pump tank) should be inspected annually and pumped in accordance with State and Local guidelines. Depending on use, a typical home will produce sufficient sludge requiring the septic tank to be pumped every 2 to 10 years. The importance of desludging can not be over-emphasized since the Puraflo system is designed to treat effluent from a well functioning septic tank where a significant portion of insoluble solids have been allowed to settle out. The effluent filter installed with the Puraflo system should be cleaned annually or at the time of system inspection. The inspection/desludging should be carried out by a qualified septic pumper and should not be attempted by the homeowner.

Note: A filter is installed on the septic tank outlet pipe to prevent the carryover of solids to the treatment system. If septic tank maintenance recommendations and practices are not followed and in particular, if large objects are disposed into the septic tank, the filter will clog causing wastewater to backup into the house.

5.0 Puraflo Effluent – Sampling and Analysis

5.1 Treated Effluent Quality

When treating domestic strength sewage (300 mg/l BOD_5 or less) up to the design flows and loads, a properly maintained Puraflo peat fiber biofilter system will typically perform better than the 30-day average requirements of NSF Standard 40 Class 1 (25 mg/l $CBOD_5$ and 30 mg/l TSS).

Reductions in the $CBOD_5$ and suspended solids (TSS) influent concentrations will be attained within a few weeks of commissioning and should be consistently achieved over the lifetime of the peat fiber media.

$CBOD_5$ and suspended solids (TSS) treatment performance in the peat fiber media is not subject to significant variation with ambient air temperature fluctuations.

Parameter	NSF Std 40 Avg, 30-day	Puraflo Effluent NSF Std 40 Avg	Puraflo Effluent NSF Std 40 Max Result
$CBOD_5$ (mg/l)	25	2	9
TSS (mg/l)	30	2	6
pH	6 - 9	6.4 - 7.4	7.4

Note:
All modules use identical components except those with limestone in underdrain (e.g. NSF 40 model) have 1 ft^3 of limestone substituted for 1 ft^3 of granite. Total underdrain stone = ~4.5 ft^3 per module

5.2 General Requirements for Sampling

- Where required by State and Local regulation the following describes the correct methods for collecting and transporting an effluent sample to an accredited laboratory.
- The person responsible for sampling (here after referred to as the sampler) should have a technical background and be familiar with the workings of the Puraflo system.
- Personal safety should be the first consideration of the sampler. The sampler should wear protective clothing, eye protection and sterile disposable gloves at all times. The gloves should be discarded immediately after sampling (i.e. one pair of gloves per sampling event). This safeguards against cross contamination of samples. Always wash hands after sampling.
- All samples shall be obtained, preserved and analyzed in accordance with the guidelines outlined in EPA's document 40 CFR 136.
- All samples for inorganic analysis (i.e. BOD, TSS) should be collected into sterile plastic containers (or equivalent). All samples for microbiological analysis should be collected into sterile plastic containers (or equivalent). Different laboratories provide different sampling containers.
- The volume of sample required for proper analysis varies according to the test performed. Confer with the local laboratory to establish the volume requirements needed based on the total number of parameters requiring analysis.
- All sampling containers should be clearly labeled to include, as a minimum, the following information:
  - A unique sample identification number
  - The source/location of sample collection
  - Date and time the sample was collected
  - The name of the sampler responsible
  - The name of the treatment system owner
  - All parameters requiring analysis
- All samples must be properly stored during transportation to the laboratory. This usually involves transporting the sample in cold storage and keeping it in the dark (away from sunlight) to inhibit further biochemical reactions.
- All time sensitive samples (e.g., fecal coliform) must be delivered to the laboratory within 6 hours of sampling. Therefore, travel time, laboratory operating hours, weekend or holiday schedules all need to be considered with any sampling program.
- The laboratory responsible for analysis must be certified or accredited and have a chain of custody and quality control/quality assurance system in place.
- Complete all chain-of-custody forms. Retain a copy for your records and forward a copy to Anua at info@anua-us.com or fax to 336-547-8559.

5.3 Puraflo Sampling Protocol

- Put on protective clothing, eye protection and gloves where required.
- Locate and remove the lid of the sampling chamber, exposing the effluent discharge pipe below. Typically, there should be a slow steady drip of effluent from the discharge pipe. **Do not force flow through the system by running the pump in manual operation.**
- Clean the discharge pipe to remove any residual solids or a 'slimy growth'.
- Once the effluent is free flowing, carefully place the mouth of the sample bottle directly under the falling stream of effluent. Be careful not to touch the discharge pipe with the mouth of the sample bottle. If the sampling bottle is too tall to fit under the discharge pipe, a 'dipping device' may be required. Please ensure that the dipping device is thoroughly cleaned and sterilized before sampling
- Refill the container almost to the top, leaving approx. 1-5% of the container volume to allow for thermal expansion during transportation. It may take 10 to 20 minutes to acquire the needed volume prescribed by the accredited lab.
- If a microbiological sample is required, a sterile plastic container (or equivalent) should be used. Carefully remove the lid of the sampling container using the thumb and forefingers. Fill the bottle to the top, and replace the lid immediately. Do not rinse the bacteriological sampling container, fill it only once, being careful not to allow your hands to come into contact with the rim of the container. **Extreme care must be taken because even a properly collected sample can become contaminated.**
- Label all sampling containers with the following information:
  - A unique sample identification number
  - The source/location of sample collection
  - Date and time the sample was collected
  - The name of the sampler responsible
  - The name of the treatment system owner
  - All parameters requiring analysis
- Note any unusual occurrences during sampling.
- Remove the protective gloves and dispose of carefully.
- Store all samples in an ice chest with ice packs (or equivalent) for transportation to the lab.
- Store all samples in the dark.
- All time sensitive samples (e.g., fecal coliform) should be delivered to the laboratory within 6 hours of sampling. All samples should be analyzed on the same day as sampling.

5.4 Visual and Odor Inspection

The Puraflo system should produce an effluent that is virtually clear of suspended solids, however, the effluent may sometimes have a slight brown-yellow color due to varying concentrations of naturally occurring organic compounds (humic and fulvic acids; tanins) which are occasionally leached out of the peat.

The system should produce an effluent with virtually no odor, although a slight earthy smell may be detectable on occasions. If the system is producing an effluent which gives off an offensive odor or that which contains a high concentration of suspended solids, then the system may be experiencing difficulties and troubleshooting should be carried out.

6.0 Replacing System Components

6.1 Replacing the Pump

Equipment Required: Screwdriver, wire ties, pliers, gloves and replacement pump

- Isolate main power
- Unwire pump
- Remove pump tank access port
- Disconnect force main piping
- Extract pump (pull-rope/pull-chain)
- Remove wire from conduit
- Remove force main piping from pump
- Discard of spent pump in accordance with proper regulatory handling and disposal rules
- Connect force main piping to replacement pump
- Install wiring in conduit
- Lower pump back into original position
- Reconnect force main piping
- Reconnect power the system
- Go to control panel
- Switch from automatic to manual to activate the pump
- Carry out drawdown test
- Make timer adjustments as required.
- Return control panel to automatic setting
- Close control panel and secure
- Secure access port back in place

6.2 Replacing the Float(s)

Equipment Required: Screwdriver, wire ties, pliers, gloves and replacement float

- Isolate main power
- Unwire float connection to control panel
- Remove pump tank access port
- Remove defective float and replace
- Secure access port back in place
- Reconnect float connection to control panel
- Reconnect main power

6.3 Replacing the Control Panel/Alarm

Equipment Required: Screwdriver, wire ties, pliers, gloves and replacement panel

- Isolate Main Power
- Unwire inlet power from control panel
- Unwire pump connections from control panel
- Unwire float(s) from control panel
- Disconnect inlet conduit
- Unscrew control panel from mounting bracket
- Discard of spent control panel pump in accordance with proper regulatory handling and disposal rules
- Mount new control panel
- Reconnect inlet conduit
- Rewire float(s) connections
- Rewire pump connections
- Rewire inlet power
- Reconnect main power
- Switch control panel from automatic to manual to activate pump
- Remove the access port from the pump tank
- Raise alarm float in pump tank to test alarm
- Secure access port back in place

6.4 Replacing the Peat Fiber Media

Note: Peat fiber replacement should only be carried out under the direct supervision or control of the manufacturer or authorized representative. All peat is not the same and only peat fiber provided by Anua should be used. Replacing media without correcting potential problems may lead to a shortened lifespan.

Needed:

- Apply for repair permit (if required). Check with local Health Department.
- Contact your local authorized distributor to oversee the project.
- Contact local authorized distributor to order the replacement peat fiber.
- Backhoe, skid loader, or other equipment to lift approximately 1,500 lbs. of peat fiber.
- Pump truck to pump partly-dry material (and #5 stone) or equipment to remove peat from site by hand
- Two workers w/ pitchforks and shovels
- Approved land application area, landfill, or sewage treatment plant with drying bed for disposal.
- Two 1/2" wrenches, shovels and forks, water hose, wet vacuum and power cord.
- 1" and 1.25" PVC union or coupling (one per module), saw, primer and glue.
- Water source with hose and power source to reach module area
- Minimum six to eight five-gallon buckets of clean septic stone or #5 stone to fill around outlets at bottom of each module
- Replacement peat fiber media from Anua (1.25 bags per module).
- Wet vacuum to clean bottom of module.

Process:

1. Perform any test required before removal.
2. If removing by hand, cut water off to system 24 to 48 hours before removal. If pumping with pump truck, leave water on.
3. Remove lids.
4. If using a pump truck, add water as needed to slurry
5. Pump or shovel out all peat media and stone. (Wet vacuum the very bottom for cleaning) Remove all material.
6. Remove grid (if needed). Cut on horizontal piping. Note: new modules have a one union.
7. After module is empty and clean, ensure that all drain holes are open and flowing (trench type system will have two open holes on one side and two plugged holes on the other).
8. Run pump to ensure that inlet piping is open.
9. Place six to eight five-gallon buckets of 1 inch stone over outlet holes and around module drain channels.
10. Place peat media in modules up to 2nd step (1/2 bag) and walk on it to pack it.
11. Place peat media to grid level (1/2 bag) and walk on it to pack it.
12. Run pump again to clean out inlet piping.
13. Replace grid; Pre 2006 modules (slide under center bar, if needed, and spring over back bar) glue together with 1-1/4 inch union or coupling, ensuring that the grid is strapped to cross bars with stain less steel straps and level (do not cover grid until all grids are in and checked). Post 2006 modules will set on top of bars with and connected with a 1 inch union installed.
14. Run pump and insure all grids are receiving same amount of water and evenly dispersing water over media (push or pull bars to level grid).
15. Place peat media to 6 inches above grid (1/4 bag) and level out. DO NOT step on grid, pack top media lightly.
16. Replace lids (bolt one side down at a time).
17. Perform draw down test and verify that the control panel is set properly.
18. Send replacement notification Information to Anua.

Note: Ensure that the peat fiber removed from the modules is disposed of in accordance with State or Local regulations.

7.0 Troubleshooting Checklist

Detection	Possible Cause	Action
Experience slow-flush but electrical system is operational	1. Unacceptable level of solids in septic tank 2. Effluent filter blocked	1. Pump out septic tank and clean effluent filter 2. Clean effluent filter
Alarm sounds continuously and effluent level rises steadily in the pump tank – this can eventually lead to slow-flush caused by sewage backing up and could eventually cause effluent to pond at the septic or pump tank	1. Pump failure due to circuit breaker switch being tripped to the "off" position by an electrical storm or power surge 2. Pump fails due to faulty electrical system or pump is faulty	1. Conserve water usage, reset circuit breaker and test the alarm – if the problem recurs call your Authorized Service Provider 2. Conserve water usage and call your Authorized Service Provider
Alarm sounds periodically but resets itself (indicating that the pump is still operating) Note: Some states require alarms that are latched (continue to alarm after the alarm event has been corrected) and will not auto-reset themselves in which case it will be necessary to reset the alarm manually	1. High water usage above design capacity activates the alarm float switch 2. Leaking plumbing fixtures 3. Leaking pump or septic tank 4. Broken timer or incorrect timer settings 5. Latched alarm	1. Reduce water usage to range within the design capacity 2. Repair leaking plumbing fixtures 3. Repair leaks in septic or pump tank 4. Conserve water usage and call your Authorized Service Provider 5. Reset manually
No alarm warning – effluent level rises continuously in the pump tank potentially leading to slow-flush and/or effluent ponding around septic or pump tank	1. Pump and alarm failure due to circuit breaker switches being tripped to the "off" position by an electrical storm, power surge or power failure 2. Pump and alarm fail concurrently due to faulty system electronics	1. Reset circuit breaker and test the alarm – if the problem recurs call your Authorized Service Provider 2. Conserve water usage and call your Authorized Service Provider
Ponding of effluent on peat fiber media	1. Failed drainfield 2. Media at end of useful life	1. Consult with your Authorized Service Provider 2. Replace peat fiber media and dispose of spent peat media per local regulations

Appendix 1 Puraflo Inspection Checklist

Contact Details

Client Name:

Site address: _____

_____

State/Zip: _____

Phone: _____

Service Provider:

Address: _____

_____

State/Zip: _____

Phone: _____

Ref no: _____

Date installed: _____

Inspection Date: _____

Regulatory Authority: _____

Septic Tank

Is septic tank accessible? ☐ Yes ☐ No

Are access covers secure / filter in place? ☐ Yes ☐ No

Wastewater level in tank: ☐

Sludge level in tank: ☐

Scum level in tank: ☐

Date of last de-sludging: ☐

Does tank need de-sludging? ☐ Yes ☐ No

Watertightness of septic tank: ☐ Satisfactory ☐ Unsatisfactory

Condition of risers: ☐ Satisfactory ☐ Unsatisfactory

Condition of pipe connections: ☐ Satisfactory ☐ Unsatisfactory

General comments:

Pump Tank

Is pump tank accessible?	☐ Yes	☐ No
Are access covers secure?	☐ Yes	☐ No
Effluent level in tank:	☐	
Sludge level in tank:	☐	
Is there sludge carryover?	☐ Yes	☐ No
Is grease present in pump tank?	☐ Yes	☐ No
Watertightness of tank:	☐ Satisfactory	☐ Unsatisfactory
Condition of risers:	☐ Satisfactory	☐ Unsatisfactory
Condition of pipe connections:	☐ Satisfactory	☐ Unsatisfactory

General comments:

Pump

Is pump accessible and removable? ☐ Yes ☐ No

Is pump operating satisfactorily? ☐ Yes ☐ No

Are floats operating satisfactorily? ☐ Yes ☐ No

Are valves operating satisfactorily? ☐ Yes ☐ No

Condition of floats, control panel and alarms: _____

Result of drawdown test: ☐ Satisfactory ☐ Unsatisfactory

Pump Readings

Pump delivery rate:		Pump delivery dose:	
Last pump reading (A):		Date of last pump reading (C):	
Current pump reading (B):		Date of current reading (D):	
Difference (X) (i.e. B - A):		# days in period (Z) (i.e. D – C):	
Average (X/Z) gallons:			

ETM Readings

Last ETM reading (A):		Date of last reading (C):	
Current ETM reading (B):		Date of current reading (D):	
Difference (X) (i.e. B - A):		# days in period (Z) (i.e. D – C):	
Average (X/Z):			

Timer Settings

On-setting: ☐ Off-setting: ☐

Alarm Conditions

No. of times alarm has been activated: ☐

Reason for activation: _____

_____

_____

General comments:

_____

_____

_____

_____

Water Supply

Water source: ☐ Well ☐ Community water supply ☐ Water haul or cistern

Water meter reading (A): ☐ Last water meter reading (B): ☐

Date of last reading: (C) ☐ Date of current reading (D): ☐

Difference (X) (i.e., B – A): ☐ # days in period (Z) (i.e., D – A): ☐

Average amount of water per day (X/Z): ☐

Is there a water softener or water conditioning unit? ☐ Yes ☐ No

Peat Fiber Modules

Are the modules accessible? ☐ Yes ☐ No

Any structural damage evident? ☐ Yes ☐ No

Adequate ventilation? ☐ Yes ☐ No

Any excess odors? ☐ Yes ☐ No

Berm condition? ☐ Satisfactory ☐ Unsatisfactory

Condition of peat fiber media OK? ☐ Yes ☐ No

Any insect or other pest infiltration? ☐ Yes ☐ No

Any ponding of media surface? ☐ Yes ☐ No

Even wastewater distribution? ☐ Yes ☐ No

Distribution grid level? ☐ Yes ☐ No

Drainfield

Drainfield type: ☐ In-ground pad ☐ Mounded pad
☐ Trench ☐ Other (please specify) _____

Any surface water diversion? ☐ Yes ☐ No

Any ponding/surfacing of effluent? ☐ Yes ☐ No

Any excess vegetative growth over the drainfield? ☐ Yes ☐ No

Stability of percolation area? ☐ Satisfactory ☐ Unsatisfactory

If pressure dosing to drainfield, please provide lift station, pump and control panel detail:

_____

_____

Force Main

Is main line OK?	☐ Yes	☐ No
Is manifold OK?	☐ Yes	☐ No
Are orifice plates OK?	☐ Yes	☐ No
Are connections OK?	☐ Yes	☐ No
General condition:	☐ Satisfactory	☐ Unsatisfactory

Monitoring Systems

Condition of sample chamber OK?	☐ Yes	☐ No
Sample appearance OK?	☐ Yes	☐ No
Condition of monitoring wells (if any) OK?	☐ Yes	☐ No
Drainfield ports (level) OK?	☐ Yes	☐ No

Samples taken (how many and where)? _____

_____

_____

General comments:

_____

_____

_____

Inspected by: _____ Date: _____

Customer Signature: _____ Date: _____

Appendix 2 Puraflo Effluent Sampling

Client Name:

Site address: _____

_____

State/Zip: _____

Phone: _____

Ref no: _____

Date installed: _____

Was contact made with owner prior to visit? ☐ Yes ☐ No

Was occupancy established? ☐ Yes ☐ No

Please confirm that a passive sample was taken: ☐ Yes ☐ No
(Please confirm that pump **was not** activated)

Please check if: ☐ Solids present ☐ Odor ☐ Grease ☐ Color

Sampled by: _____ Date of sampling: _____

Time of sampling: _____ Delivery to laboratory: _____

Name of laboratory: _____

Address of laboratory: _____

_____

State/Zip: _____

Name of laboratory analyst(s): _____

_____

Laboratory accreditation details: _____

_____

Monitoring Systems

Sample ID	Parameter	Units	Influent	Effluent

Laboratory signature: _____

Appendix 3 Puraflo Troubleshooting Report

Client Name:

Site address: _____

_____

State/Zip: _____

Call out performed by: _____

Maintenance performed by: _____

Phone: _____

Ref no: _____

Date installed: _____

Number of modules: _____ ☐ In-ground pad ☐ Mounded pad

☐ Trench ☐ Other _____

Please check reason for call-out from the following:

Maintenance	**Call-out**
☐ Warranty	☐ Warranty
☐ Annual maintenance	☐ Emergency call-out
☐ Maintenance contract	☐ Maintenance contract
☐ No maintenance contract	☐ No maintenance contract
☐ Other (please specify)	☐ Other (please specify)

_____ _____

_____ _____

Date reported: _____ Date addressed: _____

Problem: _____

_____

Cause of problem: _____

_____

Corrective action taken: _____

_____

Problem corrected? ☐ Yes ☐ No

Please send a copy of the Troubleshooting Report, with a copy of the inspection checklist to Anua at P.O. Box 77457, Greensboro, NC 27417. You may also email: info@anua-us.com or fax: 336-547-8559

Appendix 4 Puraflo Remedial Work Report Sheet

Section A - Site Information

Report Sheet No: _____ Date: _____

System Owner: _____

Site address: _____

_____

State/Zip: _____

Time of arrival: _____ Anua representative: _____

No. of labor hours: _____ Cost of remedial work: _____

Section B - Site History

Please give details: _____

_____

_____

_____

_____

_____

Section C - Remedial Work

Please give details: _____

_____

_____

_____

_____

_____

Section D - Comments/Further Work

Please give details: _____

_____

_____

_____

_____

_____

Signed for Anua: _____

Signed by owner (if present): _____

Appendix 5 Peat Fiber Replacement Checklist

5.1 Site information

Name: _____ Permit #: _____

Address: _____ Date: _____

_____

Phone: _____

Design Flow: _____ # of Modules: _____

Reason for Replacement: _____

Other: _____

5.2 Peat Fiber Media Replacement Check List

- ☐ Was the old media removed, including stone?
- ☐ Were drain or weep holes free from obstructions and free-draining?
- ☐ Are bars stable and connected?
- ☐ Is inlet piping stable and connected?
- ☐ Was one bag or 1,000 lbs of peat fiber media installed under grid?
- ☐ Was piping flushed before grid was installed?
- ☐ Was orifice checked and cleaned?
- ☐ Was grid replaced and strapped / connected correctly?
- ☐ Was flow through grid checked for even flow? (adjust as needed)
- ☐ Was 1/4 bag or 250 lbs of peat fiber media installed on top of grid?
- ☐ Was lid re-installed properly and secured with lid bolts?
- ☐ Was drawdown test performed and the control panel timer set correctly?
- ☐ Was effluent free-flowing into the sample chamber after drawdown test?

Notes: _____

_____

_____

Sign: _____ Date: _____

Print: _____

Appendix 6 Peat Fiber Replacement Manufacturer Notification

Please send to:

Anua
PO Box 77457
Greensboro, NC 27417
T: 336.547.9338
F: 336.547.8559
e: info@anuainternational.com

Date: _____ Permit #:_____

# of Modules: _____ Design Flow:_____

Installation Date: _____ O and M Contract in Place? YES: _____ NO: _____

O and M Provider Information

Name: _____

Address:_____

_____

Phone:_____

Site Information

Name: _____

Site Address:_____

_____

Mailing Address:_____

_____

Phone:_____

Peat Fiber Replacement Installer Information

Name:_____

Address:_____

_____

Phone:_____

Reason for Replacement : _____

_____

_____

_____

Notes: