

Septic Tanks and New Regulations 2020

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Overview

- What is a Septic Tank ?
- What is a Waste Water Treatment Plant ?
- What is a Cesspool ?
- What can go wrong?
- General Binding Rules
- New Regulations 2020
- Types of EA Permits
- Swimming Pools

Septic Tanks

- High level inflow and high level outflow
- Settled Effluent
- High ammonia – 60 mg/l
- Originally concrete block with concrete render; with overflow into hit and miss block chamber (cess pits)
- GRP onion type tanks
- GRP shallow horizontal tanks
- Can only discharge into the ground



Waste Water Treatment Plants

- Biologically treated effluent
- Requires electrical supply
- Aerobic bacteria
- Requires Maintenance Contract
- Ammonia typically 20 mg/l can be as low as 1 mg/l
- Can discharge into the ground or surface water

Cesspools

- Store all the waste from the dwelling into a holding tank
- Emptied at least every 2 weeks
- Very large tank - a 3 bedroom house would require 38,000 litre tank
- Average costs are £2500 per person / year to empty
- 150 litres per day per person - taken off site to SWW treatment plant

What Can go Wrong?

Generally the soakaway or the land drains fail, which creates blocked drains.. Odours can't use the toilet, have a bath or wash dishes

Or effluent can short circuit to the surface

Third Party Land Issues – even if it is written in the deeds, it doesn't normally allow you to install a new land drainage system – only to maintain the existing one



Land Drains

Land drains tend to be the element that goes wrong first. If installing new land drains on existing septic tank or on a new system, they must comply with Building Regulations & BS 6297.

Percolation Values must be within 12-100 s/mm

Invert of the pipe must be 1m above the bedrock and the winter groundwater table

100m of pipe is not uncommon – huge land grab

Land drains must not be sited under driveways or within 15m of the nearest building.

Properties to be sub divided into plots - vendors must be mindful that the area available to site the land drains significantly reduces, and there would be multiple properties draining into a reduced garden area meaning a higher volume and a larger land drainage system compared to the existing. I have seen sites with Planning Permission and no where to drain the effluent.

Reform of the regulatory system to control small sewage discharges from septic tanks and small sewage treatment plants in England

General binding rules for small sewage discharges (SSDs) with effect from January 2015

General Binding Rules

The following general binding rules apply to all small sewage discharges:

#	Discharges to surface water	Discharges to ground	General binding rule
1		X	The discharge must be 2 cubic metres or less per day in volume.
2	X		The discharge must be 5 cubic metres or less per day in volume.
3	X	X	The sewage must only be domestic.
4	X	X	The discharge must not cause pollution of surface water or groundwater.
5		X	The sewage must receive treatment from a septic tank and infiltration system (drainage field) or a sewage treatment plant and infiltration system.
6	X		The sewage must receive treatment from a sewage treatment plant.
7		X	The discharge must not be within a groundwater Source Protection Zone 1 or within 50 metres from any well, spring or borehole that is used to supply water for domestic or food production purposes.
8	X		For discharges in tidal waters, the discharge outlet must be below the mean spring low water mark.

#	Discharges to surface water	Discharges to ground	General binding rule
9	X	X	All works and equipment used for the treatment of sewage effluent and its discharge must comply with the relevant design and manufacturing standards ie the British Standard that was in force at the time of the installation, and guidance issued by the appropriate authority on the capacity and installation of the equipment.
10	X	X	The system must be installed and operated in accordance with the manufacturer's specification.
11	X	X	Maintenance must be undertaken by someone who is competent.
12	X	X	Waste sludge from the system must be safely disposed of by an authorised person.
13	X	X	If a property is sold, the operator must give the new operator a written notice stating that a small sewage discharge is being carried out, and giving a description of the waste water system and its maintenance requirements.
14	X	X	The operator must ensure the system is appropriately decommissioned where it ceases to be in operation so that there is no risk of pollutants or polluting matter entering groundwater, inland fresh waters or coastal waters.

New Regulations 2020

- Only applies for Septic Tanks discharging to a surface water
- It is still possible to discharge Septic Tank effluent to ground if it complies with the General Binding Rules
- It is possible to discharge effluent from the Waste Water Treatment Plant into either the ground or a surface water if it complies with the General Binding Rules.
- Septic tanks discharging to a surface water must be replaced by 1st Jan 2020; where a property is sold the responsibility of the upgrade should be addressed between the buyer and seller as a condition of sale
 - 1) Connect to sewer
 - 2) Install a drainage field
 - 3) Upgrade to a treatment plant

Swimming Pools

Unless the backwash from swimming pools connect to the mains sewer it should be assumed that if the backwash discharges into a soakaway it will require a Permit from the Environment Agency.

Recent Consultation with the Environment Agency has said that we would need to submit a Permit application with an application fee of £2460 plus there would be an annual subsistence fee for a backwash soakaway.

Would require detailed information on the proposed method of treatment along with a site plan detailing the grid references, discharge and sample point.

EA Permits

Types of Permit

- General Binding Rules
- Standard Environmental Permit
- Bespoke Permit

If the scheme does not comply with the General Binding Rules it must have a Permit.

It is currently taking 2 months to validate a Permit Application

They have 4 months to determine an Application – Total Process 6 months

Application fees went up significantly in April 2018

Easy Questions Only .. 😊

Thanks for listening.

If you have any specific sale purchases going through I will be happy to talk about them later.

Our services are:

- Flood Risk Assessments
- Pre Purchase Septic Tank Surveys
- Planning Permissions/ Building Regulations and EA Permit Applications
- Installations and Maintenance Contracts

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