

Principal statutes and statutory instruments

Environmental Permitting (England and Wales) Regulations 2010 (SI2010/675)	Under the regulations it is a criminal offence to discharge hazardous substances and/or other non hazardous pollutants onto or into land, unless you have an environmental permit (see e key facts No.2) for a groundwater activity from the Environment Agency or are subject to an exemption or an exclusion. These Regulations do not apply in relation to the consequences of accidents or exceptional circumstances of natural cause that could not reasonably have been foreseen, avoided or mitigated.
Regulated substances	Hazardous substances are the most toxic and must be prevented from entering groundwater. They include pesticides, sheep dip, solvents, hydrocarbons, mercury, cadmium and cyanide. Non-hazardous pollutants are less toxic but could be harmful to groundwater, and the entry of these substances into groundwater must be limited. They include substances that contribute to eutrophication (abnormal growth of algae), in particular nitrates and phosphates, and compounds such as ammonia (which is present in sewage effluent).
Exclusions	The exclusion under the old GWR 1998 for sewage effluent discharges from isolated dwellings outside of areas protected for drinking water no longer applies. However, a GWR permit is not required until 1 January 2012 for such sewage effluent discharges (from a domestic septic tank or sewage treatment plant) if the discharge is less than 2m ³ /day.
Sewage effluent	As was the case previously, all sewage effluent discharges close to drinking water sources (within 50m or in Zone 1 of the EAs groundwater protection policy) need a full permit, regardless of size. In exceptional cases where small effluent discharges are causing pollution the Environment Agency may serve a notice, either to require a permit and additional controls or to prohibit the discharge.
Radioactive substances	The previous exclusion no longer applies: radioactive substances are treated as hazardous substances for the purposes of the Regulations. Disposal of radioactive substances is, however, covered by the requirement to hold an environmental permit for a radioactive substances activity (see e key facts No.14).
Charges	For a discharge of less than five cubic metres per day (5,000 litres or 1,100 gallons) and not exceeding 30 cubic metres per year, a reduced application fee of £124 (2009/10) applies. For discharges of more than five cubic metres per day or 30 cubic metres per year, the standard application fee is £876 (2009/10). There is also an annual subsistence fee. The level of the fee will depend on what volume and which substances are being disposed of. For example, where the reduced application fee applies, the annual subsistence fee is £152 (2009/10). In some circumstances, for example where the proposed discharge is particularly contentious, the Environment Agency may need to advertise the application to bring it to public attention.
Codes of practice	Activities involving the manufacture, handling, storage and use of hazardous substances and non hazardous pollutants where there may be unintentional releases to ground or groundwater do not require a environmental permit as a groundwater activity. However, they are covered by other parts of the regulations through the use of groundwater protection codes of practice and notices. Codes of practice promote good management and operational/housekeeping to prevent pollution. There are currently four “Groundwater Protection Codes” issued under the GWR: <ul style="list-style-type: none"> • use and disposal of sheep dip compounds; • petrol stations and fuel dispensing facilities involving underground tanks; • solvent use and storage; • code of practice for using plant protection products. In addition, the Code of Good Agricultural Practice (CoGAP) is statutory under the WRA. Many of its principles are highly relevant to groundwater protection.

Discharges that may be permitted	<p>The Environment Agency may grant a permit irrespective of the need to prevent entry of Hazardous substances and limit pollution by non-hazardous substances for the following activities: —</p> <p>(a) the injection of water containing substances resulting from the operations for exploration and extraction of hydrocarbons or mining activities, and injection of water for technical reasons, into geological formations from which hydrocarbons or other substances have been extracted or into geological formations which for natural reasons are permanently unsuitable for other purposes, provided that the injection does not contain substances other than those resulting from the above operations; .</p> <p>(b) the reinjection of pumped groundwater from mines and quarries or associated with the construction or maintenance of civil engineering works; .</p> <p>(c) the injection of natural gas or liquefied petroleum gas for storage purposes into geological formations which for natural reasons are permanently unsuitable for other purposes; .</p> <p>(d) the injection of natural gas or liquefied petroleum gas for storage purposes into other geological formations where there is an overriding need for security of gas supply, and where the injection is such as to prevent any present or future danger of deterioration in the quality of any receiving groundwater; .</p> <p>(e) construction, civil engineering and building works and similar activities on, or in the ground which come into contact with groundwater; .</p> <p>(f) discharges of small quantities of substances for scientific purposes for characterisation, protection or remediation of water bodies limited to the amount strictly necessary for the purposes concerned; .</p> <p>(g) reinjection into the same aquifer of water used for geothermal purposes; .</p> <p>(h) inputs of pollutants that are the result of— .</p> <p>(i) interventions in surface waters for the purposes, amongst others, of mitigating the effects of floods and droughts, and for the management of waters and waterways; .</p> <p>(ii) artificial recharge or augmentation of groundwater bodies for the purposes of groundwater management</p>
Offences	<p>It is an offence to cause or knowingly permit the discharge of any hazardous substance or non-hazardous pollutant in circumstances that might lead to an indirect input of that hazardous substance or non-hazardous pollutant into groundwater unless it is carried on under and in accordance with a permit granted by the Agency under this regulation.</p>
Prohibition notices	<p>Where:</p> <p>(a) any person is carrying on, or proposing to carry on, any activity on or in the ground; and .</p> <p>(b) that activity might lead to the input into groundwater of any hazardous substance or non-hazardous pollutant,</p> <p>the Agency may serve a prohibition notice on that person prohibiting the carrying on of that activity.</p>
Penalties	<p>A person guilty of an offence under the Regulations is liable to:</p> <p>(a) on summary conviction, to a fine not exceeding £50,000 or imprisonment for a term not exceeding 12 months, or to both, or</p> <p>(b) on conviction on indictment, to a fine or imprisonment not exceeding 5 years, or to both. .</p> <p>A person guilty of an offence of failing to provide information to the Environment Agency following a formal request is liable to:</p> <p>(a) on summary conviction, to a fine not exceeding the statutory maximum or to imprisonment for a term not exceeding three months or both, or .</p> <p>(b) on conviction on indictment, to a fine or to imprisonment for a term not exceeding two years or both.</p> <p>The usual provisions applying to offences by a body corporate apply.</p>

What is a prior investigation?

Under the 2010 Regulations, a prior investigation is required before a permit can be granted by the Agency. The prior investigation must include examination of: the hydrogeological conditions; the potential for soil and subsoil to purify any polluting substances before they enter groundwater; and the risk of pollution or alteration of the quality of the groundwater from the discharge.

What are Hazardous and Non-hazardous substances?

The 2010 Regulations list substances that could cause serious pollution of groundwater as being Hazardous substances. Direct discharge of these substances would not be permitted unless the groundwater was permanently unsuitable for use. Indirect discharge due to disposal or tipping of matter would be prohibited unless the groundwater was permanently unsuitable for use or the findings of the prior investigation show no risk of pollution of groundwater. Non-hazardous substances which could cause pollution of groundwater are not specifically listed and for any substances that could cause pollution, direct or indirect discharge into groundwater may be permitted following a suitable prior investigation.

Hazardous Substances ⁽¹⁾

Substances which possess carcinogenic, mutagenic or teratogenic properties in or via the aquatic environment

Biocides and plant protection products

Organophosphorus compounds

Organotin compounds
Organohalogen compounds and substances which may form such compounds in the aquatic environment
Metals, and in particular Mercury and its compounds and Cadmium and its compounds
Persistent hydrocarbons and persistent and bioaccumulable organic toxic substances
Cyanides
Arsenic and its compounds

(1) A substance that is toxicity, persistent or liable to bioaccumulation.

What conditions will an authorisation contain?

Typical conditions may include

Conditions
The place where the authorised discharge or tipping may be done
The method by which the discharge or tipping or disposal may be done
The essential precautions which must be taken, paying particular attention to the nature and concentration of any substance in List I or List II in the discharge or matter tipped or disposed, the characteristics of the receiving environment and the proximity to water catchment areas, in particular those for drinking, thermal and mineral water.
The maximum quantity of any such substance permissible in the effluent or matter during one or more specified periods of time and the appropriate requirements as to the concentration of any substance
The arrangements for monitoring effluents discharged to groundwater
The technical precautions to be implemented to prevent any discharge into groundwater of any substance in List I and any pollution of such water by any List II substance.
If necessary, measures for monitoring groundwater, and in particular its quality.