



Department
for Environment
Food & Rural Affairs

Environmental permitting guidance (England)

Groundwater activities

For the Environmental Permitting (England and Wales)
Regulations 2016

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We work closely with our 33 agencies and arm's length bodies on our ambition to make our air purer, our water cleaner, our land greener and our food more sustainable. Our mission is to restore and enhance the environment for the next generation, and to leave the environment in a better state than we found it.



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1. Summary

About this guidance

- 1.1 This guidance only applies in England. Due to recent legislative changes effecting groundwater in England¹, it supersedes (in England only) the previously published groundwater activity guidance (published in December 2010.²). In Wales, the December 2010 guidance [Environmental Permitting Guidance Groundwater Activities \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/428482/Environmental-Permitting-Guidance-Groundwater-Activities.pdf) should continue to be followed.
- 1.2 This updated guidance is intended to help the regulator, stakeholders, and others with an interest in groundwater activities. It describes how the legislation relating to groundwater activities should be applied and how particular terms should be interpreted in England. This guidance explains the legal requirements although only the Courts can give a definitive interpretation of the legislation.
- 1.3 ‘Groundwater activities’ includes those activities that require a permit, and those that are unlawful, for instance causing pollution to groundwater, whether deliberate or accidental. Groundwater activities are legally defined with paragraph 3 of Schedule 22 to the Environmental Permitting (England and Wales) Regulations 2016 and described in more detail in section 3.1 of this guidance.
- 1.4 This guidance is part of a series of guidance documents which accompany the Environmental Permitting (England and Wales) Regulations 2016, SI 2016 No. 1154 (the ‘2016 Regulations’).
- 1.5 The series consists of the Environmental Permitting Core Guidance which describes the general permitting and compliance requirements for all activities covered by the Environmental Permitting system and other legislation implemented through the Environmental Permitting system. This is illustrated in Figure 1.

¹ Environmental Permitting (England and Wales) (Amendment) (England) Regulations 2023

² Environmental Permitting Guidance: Groundwater Activities, for the Environmental Permitting (England and Wales) Regulations 2010, December 2010, Version 1.0

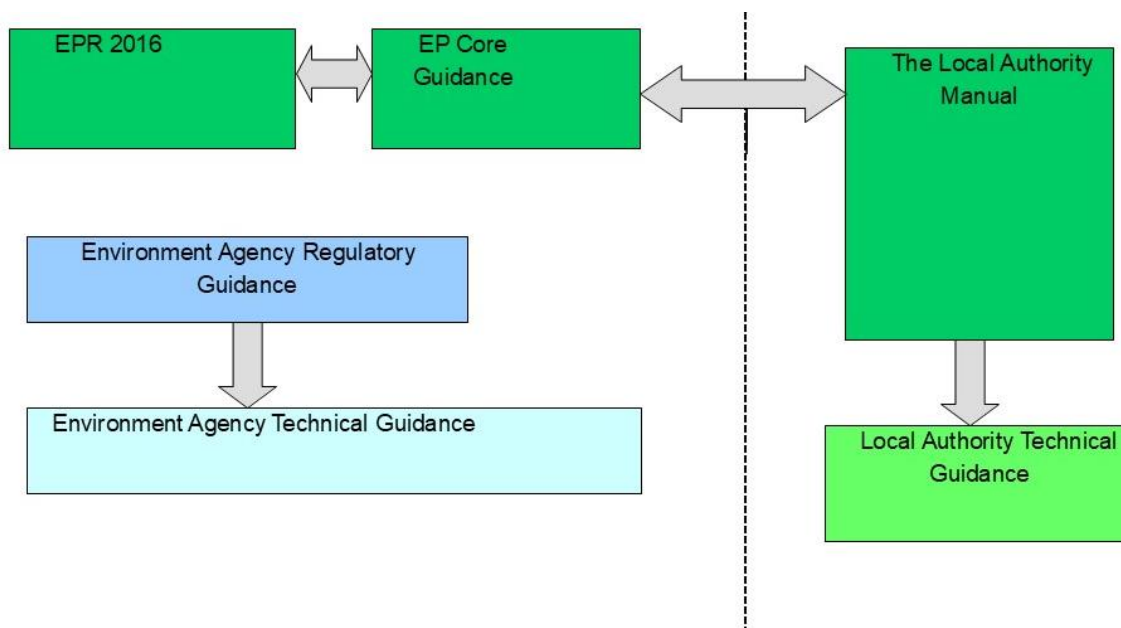


Figure 1. Illustration of guidance relationships

- 1.6 This guidance should be read in conjunction with the [Environmental Permitting Core Guidance](#).
- 1.7 The Environment Agency provides more detailed technical guidance on many aspects of groundwater activities. These are available on [Groundwater protection - GOV.UK \(www.gov.uk\)](#).
- 1.8 Where a groundwater activity is undertaken as part of the operation of a regulated facility of a different class, the Government guidance for that class of regulated facility also applies. The different classes of regulated facilities, for example a waste operation, are listed in Regulation 8 to the 2016 Regulations. The Environment Agency publishes regulatory and technical guidance for these other classes here - [www.gov.uk - Environmental permits: detailed information](#).
- 1.9 To ensure this guidance remains current, it may be periodically updated. Where made, revisions can be found in the 'Revision of Guidance' section at the front of the document.

1.10 This guidance document is compliant with the Regulator's Code³. If you feel this guidance breaches the code, or notice any inaccuracies within the guidance, please contact the [Environment Agency](#).

1.11 This guidance reflects the Government's current position in relation to the regulation of groundwater activities in England and relevant legislative changes affecting groundwater including the [Environmental Permitting \(England and Wales\) \(Amendment\) \(England\) Regulations 2023](#) ("the 2023 Amendment Regulations").

2. Introduction

Groundwater Activities

2.1 This chapter provides an introduction to permitting groundwater activities. Chapter 3 sets out the scope of groundwater activities and chapter 4 describes the requirements of the legislation which will be delivered through environmental permitting. Chapter 5 describes other requirements relevant to environmental permitting.

2.2 Relevant requirements for groundwater activities are set out in Schedule 22 to the 2016 Regulations.

2.3 Relevant requirements for exempt groundwater activities are set out in paragraph 8 of Schedule 2 to the 2016 Regulations, and descriptions of exempt groundwater activities are set out in Part 3 of Schedule 3 to the 2016 Regulations. Guidance on the registration of exempt groundwater activities is at Annex 1 of this document.

³ See [The Regulator's Code – April 2014](#)

The Environmental Permitting Regulations 2016

2.4 The 2016 Regulations are the principal legislative means by which the Environment Agency protects groundwater. Under the 2016 Regulations, a ‘regulated facility’ means a groundwater activity which itself relates to inputs (or potential inputs) of pollutants to groundwater.

2.5 The 2016 Regulations together with the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (the ‘2017 Regulations’) have transposed groundwater requirements of the Water Framework Directive 2000⁴ (WFD) and Groundwater Directive 2006 (GWDD)⁵, and the 2017 Regulations remain as retained EU law. It is clear from the wording of the WFD that a level of protection at least equal to that in the now revoked original Groundwater Directive 1980 (Original GWD) should be retained on repeal of that Directive. The 2016 Regulations therefore have ensured that essential requirements of the original GWD were not lost whilst facilitating a change from the old to the new Directives.

3. Scope of Groundwater Activities

What is a ‘groundwater activity’?

3.1 The term ‘groundwater activity’ covers:

- the discharge of a pollutant that results in or might lead to a direct or indirect input to groundwater;
- any other discharge that might lead to a direct or indirect input of a pollutant to groundwater;
- an activity in respect of which a notice under paragraph 10 of Schedule 22 has taken effect (as described in section 3.12 of this guidance); and
- an activity that might lead to a discharge mentioned above where that activity is carried on as part of the operation of a regulated facility of another class.

⁴ DIRECTIVE 2000/60/EC of 23 October 2000 establishing a framework for Community action in the field of water policy

⁵ Directive 2006/118/EC on the protection of groundwater against pollution and deterioration (the Groundwater Daughter Directive – GWDD)

It is an offence to cause or knowingly permit a groundwater activity unless authorised by a permit, unless the activity is an exempt groundwater activity and is being carried out in compliance with the relevant exemption criteria as set out in the 2016 Regulations.

- 3.2 Certain activities that would otherwise need a permit can be exempted (see paragraph 3.16, below).
- 3.3 A groundwater activity may be carried out as part of the operation of a regulated facility of another class, for example a Part A installation, or it may be a stand-alone groundwater activity. Where it is part of the operation of a regulated facility of another class, such as a non-hazardous landfill, any such operation must at least comply with the requirements for permitted groundwater activities.
- 3.4 It may be operated by an individual (for example, the person causing a polluting discharge or entry, whether accidental or intended), or an organisation or company occupying a site and operating a treatment system.
- 3.5 The definition of 'groundwater' is as stated in Regulation 2 to the 2016 Regulations and means "all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil." Water in the unsaturated zone (the area of ground below the land surface and above the water table) is not groundwater but does come within the scope of the term "ground waters" as used and defined in the Water Resources Act 1991. It will continue to be a technical decision for the Environment Agency to determine what is groundwater in certain circumstances for the purposes of the 2016 Regulations. For example, in very low permeability strata such as clays, evaporites and dense crystalline rocks it may not be possible to define a zone of saturation because the water is bound to the rock or is relatively immobile.
- 3.6 The inclusion of 'pollutant' as a defined term reflects use of the term in the original Directives and relies wholly on the definition of pollution. The 2023 Amendment Regulations amended the definition of pollutant in relation to England in the 2016 Regulations to also include 'heat' and 'biological entity or micro-organisms'. The definition continues to include any chemical, substance or heat which is liable to cause pollution. This amendment provides the Environment Agency with the ability to apply appropriate controls as necessary to protect groundwater from the environmental risk of microbial and/ or heat pollution and brings groundwater in line with similar regulatory controls already available for surface and bathing waters. The definition of 'pollution' in relation to England is slightly amended by the 2023 Amendment Regulations to include biological entity or micro-organisms; this is needed to reflect the change in definition of pollutant.

3.7 'Heat' and 'biological entity or micro-organisms' should be regarded as 'non-hazardous pollutants' within the context of groundwater activities, given the meaning of non-hazardous pollutants as stated within paragraph 5 of Schedule 22 to 2016 Regulations.

3.8 'Direct input' in relation to groundwater is defined in paragraph 4 of Schedule 22 to the 2016 Regulations and means the introduction of a pollutant to groundwater without percolation through the soil or subsoil. An 'indirect input' in relation to groundwater is defined as stated within the 2016 Regulations and means the introduction of a pollutant to groundwater after percolation through the soil or subsoil.

What is not a 'groundwater activity'?

3.9 The following are not groundwater activities:

- Discharges made or authorized by any of the following 'prescribed statutory provisions':
 - Part 4 of the Marine and Coastal Access Act 2009 (Marine Licensing) and Part II of the Food and Environmental Protection Act 1985;
 - Section 163 of the Water Resources Act 1991 (discharges for works purposes by the Environment Agency);
 - Sections 165 of the Water Industry Act 1991 (discharges for certain works purposes by water undertakers); and
 - any local statutory provision that expressly confers a power to discharge effluent to water.
- Discharge of trade or sewage effluent from a vessel (for example, a ship).

3.10 The following may be determined by the regulator not to be groundwater activities:

- the consequences of unforeseeable accidents or exceptional circumstances. It does not apply in circumstances where the release of pollutants is due to the poor design of facilities, negligence or poor operating practices, since such events are neither unforeseeable nor exceptional;
- where the input, in the opinion of the Environment Agency, is of a quantity or concentration so small as to obviate any present or future danger of deterioration in the quality of the receiving groundwater. In other words, the quality of groundwater would to all intents and purposes be unaffected. The original GWD provided for a similar exemption which was deemed to require an assessment made purely on the basis of the intrinsic hazard of the potential discharge insofar that it could be assessed before such a discharge occurred. Under the GWDD and the 2016 Regulations an assessment may be made on the basis of the potential impact on groundwater. However, it is intended that such a '*de minimis*' determination should not require a detailed assessment of groundwater conditions and should be capable of rapid assessment of the

potential impact on groundwater by the Environment Agency, In other words

- it should take a minimal amount of time to determine;
 - only a limited assessment (if required) is needed;
 - no ongoing operational controls are required; and
 - that it should be self-evident with little effort by the regulator that the discharge is environmentally trivial.
- where the input, in the view of the Environment Agency cannot be prevented without taking measures which would increase risks to human health or the quality of the environment as a whole. In other words, the Environment Agency may need to prioritise in favour of human health or wider environmental needs if the measures needed to protect groundwater would in themselves cause greater harm;
 - where the input, for technical reasons is incapable of being prevented or limited without using disproportionately costly measures to remove pollutants from, or otherwise control their percolation in contaminated land or subsoil.

In each of the cases above the exception may apply to an individual substance or group of substances within a discharge where the remainder of the discharge otherwise requires control under a permit.

- 3.11 The Environment Agency is required to keep records of its determinations of inputs that are not groundwater activities. These may be specific (bespoke determinations) or generic ([‘class of case’ determinations](#) as published on GOV.UK).

Notices to require a permit

Discharges from activities in general

- 3.12 The regulator can serve a notice (under paragraph 10 of Schedule 22 to the 2016 Regulations) specifying that, from a date specified on the notice, some activities not ordinarily regulated as groundwater activities (e.g. storage tanks leaking pollutants to ground) are groundwater activities, and therefore cannot be operated unless authorised by a permit or unless exempt. Special conditions apply to discharges arising from highway drains.

Discharges from a highway drain

- 3.13 The regulator can serve a notice (under paragraph 11 of Schedule 22 to the 2016 Regulations) specifying that the operation of a highway drain (where that activity might lead to a discharge) is a groundwater activity from the specified date. This means the activity cannot lawfully be carried on without being authorised by an environmental permit. Such a notice may be served on a highway authority, or any other person entitled to keep open a drain under

Section 100 of the Highways Act 1980. A notice specifies the date from which it takes effect, which will be not less than six months after being served.

Prohibiting an activity that might lead to a discharge

- 3.14 The regulator can serve a notice (under paragraph 9 of Schedule 22 to the 2016 Regulations) on any person who is carrying on, or proposing to carry on, any activity on or in the ground where that activity might lead to a discharge within the meaning of a groundwater activity, prohibiting the carrying on of that activity. Breach of a prohibition notice is an offence. A prohibition notice may be served on the person carrying on an activity and may be withdrawn at any time.
- 3.15 Radioactive substances used and stored by a nuclear site licensee on a site licensed under the Nuclear Installations Act 1965 are regulated by the Office for Nuclear Regulation (ONR), not the Environment Agency. Prohibition notices are not the appropriate mechanism of control in such cases.

Exemptions

- 3.16 Groundwater activities that meet certain conditions can be exempted from the requirement for a permit. These are described briefly below. Certain exempt groundwater activities must be registered with the regulator (as set out in Annex 1. Others do not need to be registered), and the regulator must be notified if the registered exempt groundwater activity ceases to be in operation. At this time, the works and equipment for treating and discharging must be appropriately decommissioned to reduce the risk of further pollution.
- 3.17 Some exemption conditions include stand-off distances from protected sites, including sites of special scientific interest (SSSI). A SSSI is designated due to the presence of flora, fauna, or geological or physiographical features which are of special interest. In assessing risks posed to SSSIs from groundwater activities, the Environment Agency should usually focus on biological SSSIs (i.e. flora and fauna). This is because geological or physiographical features are unlikely to be put at harm by groundwater activities. SSSIs that contain or interact with surface water or springs can provide habitat for flora or fauna and are therefore also considered biological SSSIs.

Small sewage effluent discharges

- 3.18 A discharge from a small sewage treatment plant or septic tank of two cubic metres per day or less of domestic sewage effluent that results in the input of pollutants to groundwater, may

be regarded as an exempt groundwater activity, provided it meets certain exemption conditions as stated in Part 3 of Schedule 3 to the 2016 Regulations. These are that:

- all works and equipment used for the treatment and discharge of sewage effluent must comply with the requirements specified in the document entitled “General binding rules for small sewage discharges (SSDs) with effect from 2 October 2023” published by the Environment Agency on 23 March 2023 in relation to:
 - design and manufacturing standards;
 - construction, installation and operation specifications;
 - siting and installation; and
 - the capacity of the works and equipment.
- for discharges which take place for the first time on or after 1 January 2015, the discharge could not reasonably have been made to the foul sewer;
- the discharge does not contain trade effluent;
- the discharge does not result in the input of pollutants to groundwater within a groundwater source protection zone 1; and
- all works and equipment for the treatment and discharge of the sewage effluent are maintained as specified by the manufacturer. Records of maintenance work must be kept for at least five years after the work has been done.

3.19 A groundwater source protection zone 1 is now defined in Regulation 2 to the 2016 Regulations as a result of the 2023 Amendment Regulations.

3.20 For discharges which take place for the first time on or after 2 October 2023 two additional General Binding Rules (GBR) also apply to new discharges from this date. These additional rules require new discharges:

- (Rule 22) not to use the same outlet as any other small sewage discharge, if the combined volume of those discharges would exceed the volumetric GBR thresholds for groundwater (2m³ or less per day) or surface water (5m³ or less per day); and
- (Rule 23) not be made to a discharge point within 50m of any other exempt small sewage (groundwater activity or water discharge activity) discharge.

3.21 Should a new small sewage discharge be made into an existing small sewage discharge point after 2 October 2023, the new discharge will require an environmental permit as this discharge cannot comply with Rule 23. Rules 22 and 23 should not be applied retrospectively to the existing discharge and it should continue to operate under Rules 1 to 21 (as appropriate).

3.22 When an occupier of land on which an exempt groundwater activity operates ceases to occupy that land, that occupier must notify the next occupier of the land of the exempt groundwater activity. This notice must:

- describe the exempt facility:

- state the conditions of the exemption; and
- be accompanied by the records of any maintenance that had been carried out in the preceding five years.

Discharges of small quantities of substances for scientific purposes

3.23 An exemption from permitting is available for those seeking to discharge small quantities of substances to ground as part of a specified groundwater remediation scheme or a groundwater tracer test. These exemptions must be registered, details of which are provided in Annex 1.

Open-loop ground source heating and cooling systems

3.24 An exemption from permitting is available for those seeking to discharge water to groundwater from heating or cooling systems subject to specified provisions including temperature constraints. These exemptions must be registered, details of which are provided in Annex 1

Closed-loop ground source heating or cooling systems

3.25 The 2023 Amendment Regulations reintroduced heat as a pollutant in groundwater. To prevent the majority of closed-loop ground source heating and cooling systems requiring unnecessary permits, an exemption from permitting has also been introduced for those seeking to operate a closed-loop ground source heating or cooling systems subject to specified provisions. These exemptions do not need to be registered.

3.26 The exemption conditions will only apply to new closed loop ground source heating and cooling systems installed on or after 2 October 2023. Operators of existing closed loop ground source heat pumps are not affected by the amendments and do not need to comply with the exemption requirements in order to operate without a permit. This was made clear in Defra's response⁶ to the original Consultation on the proposed amendments.

3.27 For those new closed loop ground source heating and cooling systems that do not meet the exemption conditions due to proximity to sensitive groundwater receptors, an environmental

⁶ Defra: Consultation Outcome: Summary responses and government response, March 2023

permit will be required to operate the system. The Environment Agency does not licence the use of heat within the ground but permits inputs of heat that could cause environmental impact in sensitive locations.

Low environmental risk burials at new cemeteries or new extensions

- 3.28 The 2023 Amendment Regulations introduced an exemption from permitting for low environmental risk burials at new cemetery developments or new extension areas of existing cemeteries. These exemptions are subject to specified provisions within Schedule 3 to the 2016 Regulations and do not need to be registered.
- 3.29 A new cemetery development or new extension area of an existing cemetery is one that from 2 October 2023 required a new planning permission under section 57 of the Town and Country Planning Act 1990.
- 3.30 As part of the specified provisions (or conditions) of the exemption, new cemetery developments must not exceed specified burial rates depending on the aquifer designations of underlying strata (paragraph 7(3)(m) of Part 3 of Schedule 3 to the 2016 Regulations). Where superficial aquifers overlie bedrock aquifers, there will be two aquifers which underlie the cemetery. Where these aquifers have different designations, the Environment Agency should adopt the precautionary principle, and apply the burial rate associated with the more sensitive aquifer (i.e., the lower burial rate) as the limit of this condition.
- 3.31 Existing cemeteries will continue to operate under their existing planning permission requirements and are not subject to the exemption provisions of the 2016 Regulations. Operators of existing cemeteries should still aim to meet the minimum good practice groundwater protection measures and other relevant guidance as published on Gov.UK. Where evidence of pollution / harm from an existing cemetery is apparent, the Environment Agency should take appropriate and proportionate action in line with its published enforcement guidance.

4. Permitting

- 4.1 In the context of this guidance, 'permitting' is taken to mean the complete regulatory cycle which includes application, determination, reporting, compliance and surrender. This Chapter describes the requirements that the permitting process must deliver.
- 4.2 Permitting requirements derive from the current legislation, principally the 2016 Regulations. In the permitting process, the Environment Agency must have regard to any Statutory Guidance

and should also take into account relevant statements of Government policy and national strategies.

The Environmental Permitting Regulations 2016

- 4.3 The 2016 Regulations require the regulator in exercising its relevant functions to take all necessary measures to require that inputs (discharges) of pollutants to groundwater are either prevented or limited, to avoid or control groundwater pollution. Alongside the requirements of the 2017 Regulations, ensure that such measures should also prevent the deterioration of the chemical status of groundwater bodies and avoid (environmentally) significant and sustained upward trends in the concentration of pollutants in groundwater.
- 4.4 The 2023 Amendment Regulations expand the hierarchy of regulatory controls for groundwater activities under the 2016 Regulations by enabling the Environment Agency to develop, in addition to existing bespoke permitting, 'Standard Rule' permitting approaches for specified activities. The option to adopt Standard Rule permitting has been facilitated by providing the Environment Agency with means to carry out generic or site specific assessments of the hydrogeological conditions as part of the permit determination process.
- 4.5 Where Standard Rule permits are proposed for specified activities, the regulator must publicly consult on such proposals prior to adopting them.

Definitions relevant to the requirements of Groundwater Activities

Hazardous substance

- 4.6 A 'Hazardous substance' is defined in Schedule 22 to the 2016 Regulations as meaning substances or groups of substances that are toxic, persistent and liable to bio-accumulate, and other substances or groups of substances which give rise to an equivalent level of concern. The 2016 Regulations list, in particular, certain substances when they meet the criteria stated above (paragraph 4(2) of Schedule 22).
- 4.7 The Environment Agency is required to maintain and publish a list of hazardous substances. The identification of hazardous substances will be the responsibility of the Environment Agency on the recommendation of the Joint Agencies Groundwater Directive Advisory Group (JAGDAG).

JAGDAG comprises a committee of experts drawn from the UK environment agencies, research and consultancy interests, the water industry and various other sector interests. In the absence of formal JAGDAG determinations the Environment Agency may make preliminary determinations to enable it to fulfil its statutory duties. All such interim determinations should be referred to JAGDAG for prompt review. Where a substance has the potential to be toxic, persistent and liable to bio-accumulate but has (a) not been either formally determined by JAGDAG as a hazardous substance, or (b) not been subject to a preliminary determination by the Environment Agency as a hazardous substance, then the regulator should regard such a substance as a non-hazardous pollutant until such time as a formal or preliminary determination has occurred.

- 4.8 Due to their nature, it is considered that radioactive substances are hazardous substances in groundwater. This is outlined in the JAGDAG methodology for the determination of hazardous substances.
- 4.9 The JAGDAG methodology also states that radioactive substances are taken to be any substance that contains one or more radionuclides, the activity or concentration of which cannot be disregarded as far as radiation protection is concerned. Concentrations of radionuclides below the out of scope values in Schedule 23 to EPR 2016 represent concentrations that can be disregarded for the purposes of radiation protection. Radionuclides which do not require regulation under Schedule 23 to EPR 2016 are not treated as hazardous substances in groundwater. Radioactivity present at levels below the out of scope values do not need to be considered for the purposes of groundwater protection.
- 4.10 In addition to the radiological properties, radioactive substances may also have non-radiological properties that meet the criteria for hazardous in the JAGDAG methodology and therefore could be hazardous substances for non-radiological reasons. Non-radiological properties would need to be considered separately and in addition to radiological properties.

Non-hazardous pollutant

- 4.11 Under the 2016 Regulations, all substances capable of pollution which are not determined to be hazardous substances are non-hazardous pollutants. This enables the Environment Agency to require appropriate regulatory controls to be exercised over all potentially polluting substances impacting groundwater. In practice the Environment Agency will need to deal with substances which are current priorities of concern but should consider appropriate risk-based measures for other substances that are liable to cause pollution as necessary.

‘Direct discharge’ into groundwater

4.12 The definition of 'direct discharge' to groundwater in the 2017 Regulations means "the discharge of pollutants into groundwater *without percolation throughout the soil or subsoil*". A discharge can be regarded as direct, i.e., there is no percolation, for example:

- where it is made into an open physical structure such as a shaft, borehole or well which extends down to or into the water table,
- where it is made into a natural feature such as a swallow hole via uninterrupted cascade or very rapidly down open, vertical or near vertical conduits,
- where leachate arising from the deposit of any waste material below the water table moves into surrounding ground without the presence of a natural geological barrier or engineered barrier constructed to relevant standards.

4.13 A discharge is indirect, i.e. percolation does occur, for example:

- where it is made into a natural feature and the connection between the surface and the saturated zone is tortuous, i.e. gradual rather than a cascade;
- when a discharge infiltrates a natural soil or rock via a soakaway, drainage field or other similar feature – provided an unsaturated zone is maintained;
- where leachate arising from deposit of any waste material below the water table moves into surrounding ground across a natural geological barrier or engineered barrier constructed to relevant standards.

In practice the Environment Agency may need to determine on a case-by-case basis whether a discharge is direct or not and may issue technical guidance on its approach to this assessment

4.14 During negotiations on the GWDD the nature of the duty to prevent was discussed at length and the European Commission subsequently issued Common Implementation Strategy guidance on the implementation of the Water Framework Directive and the GWDD, by way of clarification. (CIS Guidance Note No. 17 – Guidance on preventing or limiting direct and indirect inputs in the context of the Groundwater Directive 2006/118/EC, section 3.4.)

4.15 This guidance states:

"The broadening of controls on pollutants by the WFD noted above, is now balanced by a series of exemptions introduced by the GWDD (Article 6.3). It is indeed not technically feasible to stop all inputs of hazardous substances, and some small inputs are environmentally insignificant and therefore do not present a risk to groundwater. Without these exemptions, the "prevent" requirement would imply an onerous and sometimes unfeasible task. Each exemption applies to both the 'prevent' and the 'limit' objective (both hazardous and non-hazardous substances) but must not override other more stringent requirements in other EC legislation.

To "prevent" an input into groundwater means: taking all measures deemed necessary and reasonable to avoid the entry of hazardous substances into groundwater and to avoid any significant increase in concentration in the groundwater, even at a local scale. "Reasonable" means technically feasible without involving disproportionate costs. How to define "disproportionate costs" depends on the local circumstances".

4.16 The CIS Guidance interpretation of "prevent" recognises that there is a practical limit to what realistically can be achieved within the overall context of aiming to avoid the introduction of all hazardous substances into groundwater. It is possible to deploy only those measures which are technically feasible and proportionate, including in terms of cost.

4.17 An input of hazardous substances would be prevented, for example, if:

- there is no discernible concentration of a hazardous substance in the discharge. This would also clearly come within the exemption under paragraph 3(3)(b) of Schedule 22 to the 2016 Regulations, with only limited assessment needed to make this judgement; or
- there are no discernible concentrations of hazardous substances attributable to the discharge in groundwater immediately down-gradient of the discharge zone, subject to adequate monitoring (or in the case of new discharges a detailed predictive hydrogeological impact assessment); or
- there are (or are predicted to be) discernible concentrations of hazardous substances in the groundwater down-gradient of the discharge zone attributable to the discharge but all of the following conditions apply:
 - (a) concentrations will not result in any actual pollution or a significant risk of pollution in the future; and
 - (b) there is no progressive increase in the concentration of hazardous substances outside the immediate discharge zone, that is there will be no statistically and environmentally significant and sustained upward trend or significant increasing frequency in pollutant "spikes"; and
 - (c) all necessary and reasonable measures to avoid the input of hazardous substances into groundwater have been taken (see below)

Necessary and Reasonable Measures

4.18 The 2016 Regulations require the Environment Agency in exercising its relevant functions, to take all necessary measures—

- (a) to prevent the input of any hazardous substance to groundwater, and

(b) to limit the input of non-hazardous pollutants to groundwater so as to ensure that such inputs do not cause pollution of groundwater.

Assessment of necessary measures must be preceded by investigation to determine pathways and is a site-specific judgement.

4.19 The Regulator's Code 2014⁷ states that regulators should be proportionate in their approaches to regulation.

4.20 A reasonable measure would be one where the necessary technical precautions to prevent inputs to groundwater are technically feasible, not disproportionately costly and are within the control of the operator. Such measures could include: source control, alteration of discharge mechanism, treatment of the discharge, interception or diversion of contaminated groundwater, and diversion of the discharge to another disposal route. For new developments this could include simply not conducting the activity in a location where valuable groundwater resources would be particularly vulnerable to inputs of hazardous substances.

4.21 Any measures taken should not result in a net environmental disbenefit.

4.22 If there is actual pollution, or a substantial risk of such pollution, remedial measures must be taken. Cost-benefit assessments are not a factor in deciding *whether* to take action in such cases but may be a consideration in determining *which* precautions are necessary.

Meaning of Groundwater

4.23 The definition of 'groundwater' is as stated in the 2016 Regulations (see section 3.5 above for further details).

Permitting requirements of the 2016 Regulations

Preventing the input of hazardous substances to groundwater

4.24 Not all discharges of hazardous substances will necessarily result in direct or indirect inputs to groundwater. The 2016 Regulations require the Environment Agency to take all the

⁷ The Regulator's Code 2014, Department for Business, Innovation and Skills

necessary measures to prevent such inputs occurring. This obligation will have indirect effect on applicants as a result of enquiries and assessments required prior to determination of an application or as conditions in a permit.

4.25 Regarding the definition of 'direct' in relation to inputs to groundwater as described above, this definition is interpreted to mean that, for a discharge to be construed as direct, there will have been an input to groundwater with no percolation through the soil or ground or other natural or artificial barrier. This includes, for example, an engineered barrier or geological barrier in the case of solid waste disposal facilities.

4.26 An indirect input to groundwater is one where the input to groundwater occurs via percolation (seepage) through the soil or subsoil, including through the unsaturated zone of the aquifer in which the groundwater occurs or through a natural or artificial barrier, as noted above.

4.27 The WFD placed a restriction on direct inputs of pollutants to groundwater. Article 6 of the GWDD clarifies the requirement to take all measures necessary to prevent inputs of hazardous substances and to limit inputs of non-hazardous pollutants so as to avoid pollution. Direct discharges of pollutants to groundwater cannot be permitted other than those activities listed as an exception to the prohibition as set out in paragraph 8 of Schedule 22 to the 2016 Regulations. See Annex 2 for further details on this position.

4.28 It is the clear objective of both the 2017 Regulations and the 2016 Regulations to prevent the input of all hazardous substances into groundwater. Clearly the interpretation of 'prevent' is important in this context.

To 'prevent' an input into groundwater means: taking all measures deemed necessary and reasonable to avoid the entry of hazardous substances into groundwater and to avoid any significant increase in concentration in the groundwater, even at a local scale. "Reasonable" means technically feasible without involving disproportionate costs.

It may however not be technically feasible to stop all inputs of hazardous substances, and some small inputs are environmentally insignificant and therefore do not present a risk to groundwater. An unacceptable input of hazardous substances to groundwater would be one that:

- Could result in pollution; or
- Is of a magnitude and persistence that it could result in a sustained increase in concentration in groundwater.

Compliance should be assessed in the immediate vicinity of the input by, for example:

- Calculation of the concentration that will be present in the unsaturated zone immediately before entry into groundwater and in the saturated zone on entry into groundwater.

- Measurement of the concentration of the substance in groundwater as near to the point of entry as is practically possible.

This recognises that, whilst the aim is to avoid the introduction of hazardous substances into groundwater, it may not be technically feasible to stop all inputs of hazardous substances. Moreover, some inputs are environmentally insignificant⁸ and in such instances the exemption noted in paragraph 3(3)(b) of Schedule 22 to the 2016 EPR may be applied.

4.29 When considering what is environmentally significant and which measures are “necessary” in the case of radioactive substances, consideration should be given to the significance of any input in respect of the radiation doses which might be received by people and non-human species due, for example, to plausible future abstractions of drinking water and to natural processes involving the return of groundwater to the other environmental media. The Environment Agency should have regard to the radiological protection system of the International Commission on Radiological Protection (ICRP) and must have regard to the standards specified in Schedule 23 to the 2016 Regulations. This is intended to ensure conformity with the radiological protection system of the International Commission on Radiological Protection (ICRP) and international standards and guidance published by the International Atomic Energy Agency (IAEA).

4.30 Also, in the case of radioactive substances, when considering which measures are “reasonable”, the radiation protection principle of optimisation should be observed. This principle requires that radiation doses to people are kept as low as reasonably achievable, subject to environment, economic and social factors. It will also be necessary to manage radiological risks to non-human species together with any non-radiological hazards associated with radioactive waste.

4.31 The main controls for radioactive substances are exercised through the requirement for an environmental permit under the 2016 Regulations for radioactive substances activities, including the keeping and use of radioactive material and the accumulation and disposal of radioactive waste. In the case of any site licensed by under the Nuclear Installations Act 1965, ONR has the lead responsibility for regulating the use and storage of radioactive substances by the nuclear

⁸ For example, an environmentally insignificant input into groundwater would be one that could not have any effect on (i) any of the receptors noted in the definition of pollution (ii) the chemical status of a groundwater body; or (iii) could give rise to a significant and sustained rising trend in the concentrations of pollutants in groundwater.

site licensee on the site, and thereby for ensuring that there is no unintended release of radioactive substances to groundwater. The Environment Agency regulates the disposal of radioactive waste on or from nuclear licensed sites.

4.32 For disposals of any solid wastes, absolute and indefinite containment of pollutants within a disposal facility will not be achievable. At some point after a disposal facility has closed, there will eventually be some inputs into groundwater. These facilities should be designed such that the long-term inputs of hazardous substances to groundwater will be insignificant from an environmental and human health perspective.

4.33 The measures taken in the design, construction, operation and closure of a disposal facility to prevent (subject to all necessary and reasonable measures) the input of hazardous substances to groundwater may need to remain effective over significant time periods. The length of that time period will be dependent on a number of factors, including the quality of the data and risk of the activity. Typically, predictions should show that potential impacts from loss of containment would only materialise over hundreds, or in some cases thousands of years. Using stochastic (probabilistic) groundwater modelling techniques and detailed evaluation of parameter uncertainty will allow such assessments to be made.

4.34 When determining applications for permitting inputs of pollutants to groundwater the Environment Agency must not only consider what is needed to 'prevent or limit' such inputs but also avoid measures which would compromise other environmental objectives within scope of the 2017 Regulations.

Non-hazardous pollutants to avoid pollution

4.35 This relates to direct and indirect inputs of non-hazardous pollutants to groundwater. The Environment Agency must be satisfied that pollution of groundwater will not be caused (which includes avoiding causing deterioration in status or environmentally significant and sustained upward trends in the concentration of pollutants) and ensure that the proposal and any conditions necessary to achieve this objective are attached to the permit.

4.36 When assessing risks posed from heat in groundwater activities, the Environment Agency should typically focus on sensitive groundwater receptors including groundwater that supports water supply and groundwater that supports flora and fauna in protected sites.

Discharges that may be permitted

4.37 Provision is made in paragraph 8 of Schedule 22 to the 2016 Regulations for a list of circumstances in which discharges which (may) result in direct inputs of pollutants to groundwater may be permitted. Permits may be granted for these, provided that such permits do not compromise the achievement of the other environmental objectives for groundwater (namely good chemical status, no deterioration in status and reversing significant and sustained upward trends of pollutants). The 2023 Amendment Regulations extend this list to include:

- any groundwater activity to remediate the effects of pollution in groundwater or in the land or waters surrounding groundwater; and
- the injection of any substance into groundwater to increase the flow of fluids or gas to a well or borehole in connection with the extraction or use of any source of energy

Practically this allows the Environment Agency to potentially permit the direct discharge of pollutants to groundwater from those activities listed in paragraph 8 of Schedule 22 to the 2016 Regulations, subject to ensuring all environmental objectives subject to the 2017 Regulations are met and no pollution of groundwater occurs.

Prior assessment

4.38 More general requirements when considering an application for a permit which might lead to the discharge of a pollutant include the requirement for prior assessment of the circumstances of such applications. As a minimum, a permit may not be granted under the 2016 Regulations unless hydrogeological conditions, the purifying powers of soil and subsoil and the risk of pollution and alteration of the quality of the groundwater have been assessed. The 2023 Amendment Regulations provide for the Environment Agency to undertake this risk assessment by either generic or bespoke (site-specific) means, in other words providing for the use of both Standard Rules and Bespoke permitting approaches for groundwater activities. Where a Standard Rules permitting approach is proposed, the Environment Agency must publicly consult on its proposals (including its generic assessment) prior to introducing said Standard Rules. Where a permit is granted, conditions to the permit must require any necessary technical precautions to be observed to prevent inputs of hazardous substances, and to limit the input of non-hazardous pollutants, to groundwater so as to ensure that such inputs do not cause pollution of groundwater.

4.39 The 2016 Regulations do not make significant changes to the way land contamination⁹ is regulated. However, a passive release of pollutants from such land where the original activity that led to the contamination has ceased is not considered to be a discharge to groundwater which needs a permit under the 2016 Regulations as there is no surface activity to control. Only if there is activity which disturbs such land which causes a release of pollutants is there then a discharge to groundwater potentially requiring a permit.

4.40 Passive discharges will continue to be controlled via a combination of the development planning system, Part 2A of the Environmental Protection Act 1990 and Anti-Pollution Works Notices under section 161A of the Water Resources Act 1991.

⁹ Land that has contamination present which may, or may not, meet the statutory definition of contaminated land given in Part 2A of the Environmental Protection Act 1990 and as explained in the Defra Guidance on the Legal Definition of Contaminated Land from April 2012.

Discharges into and from public sewers

- 4.41 Under the 2016 Regulations, in certain circumstances a sewerage undertaker may be liable for discharges to groundwater even where it did not cause or knowingly permit the discharge, if the discharge came from a sewer it owns and operates. The 2016 Regulations however specify that a sewerage undertaker is not guilty of an offence relating to a groundwater activity (or a water discharge activity) that consists of a discharge of sewage effluent from a sewer or works vested in it if certain conditions apply. The 2023 Amendment Regulations have clarified this defence, so it applies to the offence of operating (or causing/knowingly permitting) a groundwater activity or water discharge activity without an environmental permit (Regulation 38(1) of the 2016 Regulations), and also to the offence of contravening an environmental permit (Regulation 38(2) of the 2016 Regulations). This change will reduce the uncertainty for sewerage undertakers and reinstates the position that was previously in place prior to the introduction of the EPR in 2010.
- 4.42 Where there is more than one sewerage undertaker operating on a sewerage network, a sewerage undertaker may be liable if it received the matter included in the discharge into its sewer. Liability also depends on whether the undertaker was bound to receive effluent into their sewers, whether unconditionally or subject to conditions that were observed.

Mobile Plant Permitting for Groundwater Activities

- 4.43 The 2023 Amendment Regulations make available to the Environment Agency the option to grant Mobile Plant Permits (MPP) for specific groundwater activities involving mobile plant, where the generic risks are well-understood, assessed and mitigated. MPP are generally a type of Standard Rule Permit used to regulate activities that utilise a mobile plant to operate in different locations; an operator of a mobile plant activity will apply once for a MPP and will then submit a separate deployment form (risk assessment) for each location that the permit will be used at to ensure that local conditions have been accounted for when determining the risk of undertaking that activity.
- 4.44 The Environment Agency should consider three key factors that should be taken into account at the permitting stage when determining whether it is appropriate to regulate plant under a MPP. These factors should also be considered when deciding whether it is appropriate to agree to a deployment of mobile plant: (1) environmental impact. (2) mobile nature of the plant. (3) intention of the Operator.
- 4.45 Groundwater Activity MPP are best suited to low impact activities such as discharges resulting from contaminant remediation 'pump and treat' schemes.

Permit surrender application requirements

- 4.46 The 2023 Amendment Regulations introduce the requirement for operators of certain groundwater activities to apply to the Environment Agency to surrender their permit, rather than simply notify their intention to just hand back (surrender) their permit. The groundwater activities to which the application procedure applies to are discharges to a well or borehole which is used for hydrocarbon exploration or extraction, and which intersects a hydrocarbon formation. This change will enable the Environment Agency to ensure appropriate measures are put in place, such as well decommissioning, to ensure the risk of pollution from such activities is minimized following the cessation of permitted activities on site.

5. Other requirements and implications of the regulations

Permit reviews

- 5.1 The 2016 Regulations require that the Environment Agency must 'periodically review permits' and must also 'make appropriate periodic inspections of regulated facilities.' Previous regulations in relation to groundwater permit reviews required a fixed, four-yearly review cycle.
- 5.2 The implication of the 2016 Regulations permit review requirement is that reviews should be undertaken on the basis of risk to the environment, since no time period for review is stipulated in the regulations themselves. In practice it is appropriate to review permits / undertake periodic inspections at groundwater activity permitted sites at least once every six years, i.e., coincidental with river basin management plan reviews of programmes of measures, unless problems or issues become apparent sooner. The scope of reviews should take into account the risk to the environment and the appropriateness of the conditions in a permit being applied to any given site.

Geographical extent of groundwater

- 5.3 For the purposes of regulation, a groundwater activity only relates to groundwater on the landward side of the baseline from which territorial waters are measured. In essence this is the low-water line along the coast as marked on large-scale charts.
- 5.4 This position is justified since the territorial extent of groundwater under the WFD (as implemented by the 2017 Regulations and the 2016 Regulations) is the baseline from which territorial waters are measured. Article 2(3) WFD says 'Inland water' means all standing or flowing water on the surface of the land, and all groundwater on the landward side of the baseline

from which the breadth of territorial waters is measured. The definition of groundwater activity in the 2016 Regulations only relates to groundwater as originally defined in the WFD (i.e., the 2016 Regulations' definition is the same as the WFD definition). As such, the extent would mirror that in the WFD as it is groundwater as originally defined in WFD that is being protected.

Guidance including Codes of Practice

5.5 Paragraph 12 of Schedule 22 to the 2016 Regulations provides for the appropriate authority to issue guidance to those who may cause inputs of pollutants to groundwater. Such guidance can indicate the steps necessary to meet the requirements to prevent or limit the input of pollutants to groundwater. This guidance includes Codes of Practice such as those existing codes that were produced to facilitate compliance with the former Groundwater Regulations. The provision in the 2016 Regulations is intended to be on those activities that should not normally require an environmental permit. Compliance with such guidance would not guarantee compliance with the 2016 Regulations.

5.6 The Environment Agency must take into account whether the guidance is being, or is likely to be, complied with before taking enforcement action (including service of a prohibition notice). The guidance will be publicised as the appropriate authority sees fit.

Annex 1 – Registration of Exempt Groundwater Activities

Introduction

A.1.1 Under the 2016 Regulations the following exempt groundwater activities must be registered:

- discharges of small quantities of substances to ground as part of a specified groundwater remediation scheme or groundwater tracer test;
- discharges from open-loop ground source heating and cooling systems .

A.1.2 Under the 2016 Regulations the following exempt groundwater activities do not need to be registered:

- small discharges of sewage effluent;
- low environmental risk burials at new cemeteries or new extensions of cemeteries;
- closed-loop ground source heating and cooling systems.

A.1.3 Before a groundwater activity described in Part 3 of Schedule 3 to the 2016 Regulations can be registered as exempt, an operator must satisfy themselves and the Environment Agency that the relevant conditions as set out in Part of Schedule 3 can be met.

A.1.4 The relevant conditions that need to be met by a groundwater activity involving the discharge of small quantities of substances to ground, as part of a specified groundwater remediation scheme or a groundwater tracer test, are described below. Further detail is set out in technical guidance: “[Tracer tests and remediation schemes: environmental permit exemption](#)”, on Gov.UK.

What is a specified groundwater remediation scheme or groundwater tracer test?

- A.1.5** The term “specified groundwater remediation scheme” means a remediation scheme which involves the addition of a substance or preparation to groundwater which enhances the rate of remediation of contaminants.
- A.1.6** The term “groundwater tracer test” means a below ground study of the behaviour or movement of water or a contaminant. It involves the addition to groundwater of a distinguishable material¹⁰ whose properties suitably represent the contaminant or water being studied.

Conditions for registration

- A.1.7** The discharging of small quantities of substances to ground as part of a specified groundwater remediation scheme or a groundwater tracer test may be registered as an exempt activity if it meets the following requirements:

¹⁰ Specific tracers are defined in technical guidance to be provided by the Environment Agency. They include a wide range of substances including radioactive substances

- it falls within the description of a specified groundwater remediation scheme or a groundwater tracer test;
- it meets specific qualifying conditions;
- the activity is registered; and
- it does not cause pollution of groundwater.

A.1.8 The descriptions and specific qualifying conditions are set out in Paragraph 2 of Part 3 of Schedule 3 to the 2016 Regulations and are:

- that a water features survey has demonstrated that the discharge will not cause pollution;
- that the prior consent of every person having a right to abstract water in the vicinity of the discharge has been obtained;
- that the exemption registration authority is notified before the commencement of the discharge;
- that in the case of discharges as part of a specified groundwater remediation scheme, monitoring of the discharge, to determine whether pollution has been caused, is undertaken.

In addition, the descriptions and specific qualifying conditions will be set out in greater detail in technical guidance to be provided by the Environment Agency.

A.1.9 It is the operator's responsibility to ensure that the discharge complies with the requirements set out in the registration.

A.1.10 If the discharge of substances for the purposes of remediation or tracing does not meet the requirements for registration the operator must obtain a permit for the discharge.

Notification of relevant particulars

- A.1.11** Any operator discharging small quantities of substances to ground as part of a specified groundwater remediation scheme or a groundwater tracer test must notify the Environment Agency of the relevant particulars relating to that discharge in the format specified. The notification should include:
- the name and address of the operator;
 - a description of the groundwater activity;
 - the date it is proposed to carry on the activity; and
 - the place where the activity is to be carried on, including the postcode or Ordnance Survey National Grid reference.
- A.1.12** Providing the proposed groundwater activity meets the requirements for registration, the activity can be registered as an exempt groundwater activity.
- A.1.13** Notification to the Environment Agency must take place at least fifteen working days before the date it is proposed to begin carrying on the activity.
- A.1.14** The Environment Agency will assess whether the activity is suitable for registration. It may refuse to register activities to ensure that discharges do not adversely affect sensitive environmental receptors, including waters abstracted for domestic consumption, food production or public water supply. The Environment Agency will notify the occupier within fifteen working days if the activity is or is not considered to meet the qualifying conditions.
- A.1.15** The Environment Agency will provide detailed guidance on registering these activities and the criteria for refusal to register.

Register of exempt discharges

- A.1.16** The Environment Agency must:

- maintain a register of exempt groundwater activities; and
- if it agrees that an activity can be registered as exempt, put the details of registration on to the register as soon as practicable.

Operators' record-keeping

A.1.17 The operator must keep adequate records to demonstrate that the groundwater activity is being carried on in accordance with the conditions for registration.

Operators should notify the Environment Agency when they cease to operate a registered exempt activity in order to have the activity removed from the register.

Annex 2 – Legislation in respect of direct discharges of pollutants to groundwater

A2.1 Article 11(3) WFD

The starting point is the prohibition on direct discharges of pollutants to groundwater in Article 11(3) WFD:

“Basic measures’ are the minimum requirements to be complied with and shall consist of....

(j) a prohibition of direct discharges of pollutants into groundwater subject to the following provisions”

The provisions exclude from the prohibition on direct discharges a list of activities which can be authorised provided they do not compromise the achievement of environmental objectives, including the injection of water containing substances resulting from the operations for exploration and extraction of hydrocarbons or mining activities that is reinjection of produced water at oil and gas sites. Only those direct discharges listed in Article 11(3)(j) WFD can be permitted.

A2.2 Article 6(1) GWDD

In Article 6 GWDD sets out the principles for groundwater protection including the “prevent and limit” requirements. Article 6(1) says:

“In order to achieve the objective of preventing or limiting inputs of pollutants into groundwater, established in accordance with Article 4(1)(b)(i) of Directive 2000/60/EC, Member States shall ensure that the programme of measures established in accordance with Article 11 of that Directive includes:

(a) all measures necessary to prevent inputs into groundwater of any hazardous substances, without prejudice to paragraphs 2 and 3.....

(b) for pollutants listed in Annex VIII to Directive 2000/60/EC which are not considered hazardous, and any other non-hazardous pollutants not listed in that Annex considered by Member States to present an existing or potential risk of pollution, all measures necessary to limit inputs into groundwater so as to ensure that such inputs do not cause deterioration or significant and sustained upward trends in the concentrations of pollutants in groundwater...”

A2.3 Implications of Article 11(3)(j) WFD & Article 6(1) GWDD

There is no mention of controlling direct (or indirect) discharges as such as Article 6(1) is concerned with preventing inputs of hazardous substances and limiting pollution of non-hazardous pollutants. However Article 6(3) states:

“3. Without prejudice to any more stringent requirements in other Community legislation, Member States may exempt from the measures required by paragraph 1 inputs of pollutants that are:

the result of direct discharges authorised in accordance with Article 11(3)(j) of Directive 2000/60/EC;.....”

This makes clear that the more stringent requirements of WFD apply notwithstanding what Article 6 GWDD says, except in defined cases as set out which include direct discharges which are authorised as an exception to the prohibition of direct discharges.

A2.4 Inference of the 2016 Regulations and the 2017 Regulations

The transposition of these requirements is via the 2016 Regulations and the 2017 Regulations.

Paragraph 6 of Schedule 22 to the 2016 Regulations requires:

“For the purpose of the duties in regulation 3 of the WFD Regulations, [the 2017 Regulations] the regulator must, in exercising its relevant functions, take all necessary measures—

(a) to prevent the input of any hazardous substance to groundwater, and

(b) to limit the input of non-hazardous pollutants to groundwater so as to ensure that such inputs do not cause pollution of groundwater.”

There is no mention of the prohibition of direct discharges of pollutants to groundwater in the 2016 Regulations other than in relation to those that can be authorised as an exception to the prohibition (set out in paragraph 8 of Schedule 22) which mirrors list of exceptions in Article 11(3)(j) WFD.

The 2017 Regulations are more explicit as Regulation 20 states:

“(1) Each programme of measures proposed and approved under regulation 12 must include basic measures and, where necessary, supplementary measures (see paragraph (4)).

(2) The basic measures must comply with Article 11.3 of the WFD and must, in particular, include the following—

(j) a prohibition of direct discharges of pollutants into groundwater, except for the following discharges which may be authorised—....”

This wording corresponds with WFD wording and limits exception to prohibition of direct discharges to the list found in WFD (so duplicating list in paragraph 8 of Schedule 22 to the 2016 Regulations). Thus the programme of measures, which includes the permitting of discharges under EPR 2016, requires prohibition of direct discharges.

A2.5 Conclusion

Taking all the legal provisions together, direct discharges of pollutants to groundwater cannot be permitted other than those activities listed as an exception to the prohibition as set out in paragraph 8 of Schedule 22 to the 2016 Regulations.
