

# Supporting Guidance (WAT-SG-12) General Binding Rules for Water Run-off and Discharge into Surface Water Drainage Systems

Version: v5.0 July 2022

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# **Version Update Summary**

Version	Description
v1.0	First (draft) issue for Water Use reference using approved content from the following documents:  SG_12_PS_GBR_Guidance
v2.0	Final version based on WAT-SG-12 (v3)HT.doc
v3.0	New base template applied, links to docs revised for Nov 08 SEPA website,
v4.0	Various updates for CAR 2011
v4.1	Section 4 para 3, text added to clarify field drain rules. Doc links updated
v5.0	Various updates for the CAR 2021 amendment

# 1. Key Points

This document provides supporting guidance on General Binding Rules (GBRs) for water run-off and discharges into surface water drainage systems. It provides:

- Background and context to the GBRs under Activities 10A, 10B, 10C 10D, 11, 21 and
   22
- Explanation and interpretation of these GBRs
- Guidance on complying with the GBRs

# 1.1 Terminology

Term	Definition
CAR	The Water Environment (Controlled Activities) (Scotland) Regulations
COPA	The Control of Pollution Act 1974 (as amended)
Domestic sewage	Same meaning as in section 59 of the Sewerage (Scotland) Act 1968 (as amended)
GBR	General Binding Rule
Harm	<ul><li>(a) harm to the health of human beings or other living organisms,</li><li>(b) harm to the quality of the water environment, including –</li></ul>
	(i) harm to the quality of the water environment taken as a whole,
	(ii) Other impairment of, or interference with, the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems

	(c ) Offence to the senses of human beings,
	(d ) Damage to property, or
	(e) impairment of, or interference with, amenities or other legitimate uses of the water environment.
Oil	Any kind of oil other than solid products such as uncut bitumen and includes fuel oil, waste oil, biofuel mixtures, vegetable oil, plant oil, lubricant oil, and hydraulic oil
Pollution	in relation to the water environment, means the direct or indirect introduction, as a result of human activity, of substances or heat into the water environment, or any part of it, which may give rise to any harm
Sewage	Same meaning as in section 59 of the Sewerage (Scotland) Act 1968 (as amended)
Surface water	See text box below
SUD system	Means a sustainable urban drainage system
Surface water drainage system	A system, such as a SUD system, that is used to collect and drain water run-off from one or more premises and transport it to, and discharge it into, the water environment, and may include, among other things, any surface water sewers and associated inlets, outfalls, gullies, manholes, oil interceptors, silt traps, and attenuation, settlement and treatment facilities
Trade effluent	Same meaning as in section 59 of the Sewerage (Scotland) Act 1968
Waterbound road	means a road or track constructed of coarse stone and fine aggregate to form a tightly bound semi-impervious surface

(The) Water	Includes all surface water, groundwater and wetlands.
environment	Discharge to the water environment includes indirect
	discharges to groundwater such as soakaways and
	infiltration systems.
Water run-off	Any water from rainfall or any meltwater from ice or
	snow flowing over or horizontally through the surface of
	the ground and any matter picked up by that water as it
	does so.

#### Note on the term surface water

The term "surface water" is used in Activities 11 and 22 and the rules for GBRs 10A to D and 22 and has a different meaning depending on where it is used, each of which is described in more detail below.

The reference to "surface water" in Activity 11 is in "surface water drainage system" which (as defined) is a system used to collect and drain water run-off.

The "surface water" referred to in Activity 22 is water on the surface of waterbound roads and tracks.

The "surface water" referred to in the rules for GBRs 10A to D and 22 is surface water as part of the water environment i.e. as defined in the Water Environment and Water Services (Scotland) Act 2003:

"means inland water (other than groundwater), transitional water and coastal water."

## 2. Introduction

On 1 April 2006, *The Water Environment (Controlled Activities)(Scotland) Regulations* 2005 (CAR2005) (replaced COPA¹ for control of point source discharges) introduced General Binding Rules (GBRs). On 31 March 2011, <u>CAR 2011</u> replaced CAR 2005. CAR 2011 was amended in 2013 (by the <u>Water Environment (Controlled Activities) (Scotland)</u> Regulations 2013) then in 2017 (by the <u>Water Environment (Miscellaneous) (Scotland)</u> Regulations 2017) and in 2021 (by the <u>Water Environment (Controlled Activities) (Scotland)</u> Amendment Regulations 2021).

The regulations provide a risk-based means of regulating discharges of water run-off, which are controlled either by GBRs or Licences. The GBRs referenced in this guidance can be found in the amendments to CAR as follows:

Table 1.

	CAR amendment where	Subsequent amendment(s)
	main text of the GBR can be	
	found	
GBR10A, GBR10B,	CAR 2021	none
GBR10C & GBR10D		
GBR11	CAR 2017	CAR 2021
GBR21	CAR 2013	CAR 2021
GBR22	CAR 2021	none

The purpose of this document is to provide background and context to the relevant GBRs, give explanation and interpretation of the rules, and provide guidance on complying with the rules.

GBRs are statutory (Schedule 3 of CAR) and it is an offence under Regulation 44(1)(b) of CAR for a person to fail to comply with or contravene a GBR. However, GBRs differ from licences in that a person can carry out the described activity without application to SEPA. An **activity** specified in column 1 of Part 1 of Schedule 3 of CAR is automatically authorised providing it is carried out in accordance with the general binding **rules** specified

<sup>&</sup>lt;sup>1</sup> Control of Pollution Act 1974

for that activity in column 2 of Part 1 of Schedule 3 (Regulation 6 of CAR). See Table 2 in section 3 for the activities specified in each GBR. The rules can be found in section 4.

Enforcement of the rules would be against the party or person(s) carrying out the relevant activity.

# 3. The Activities

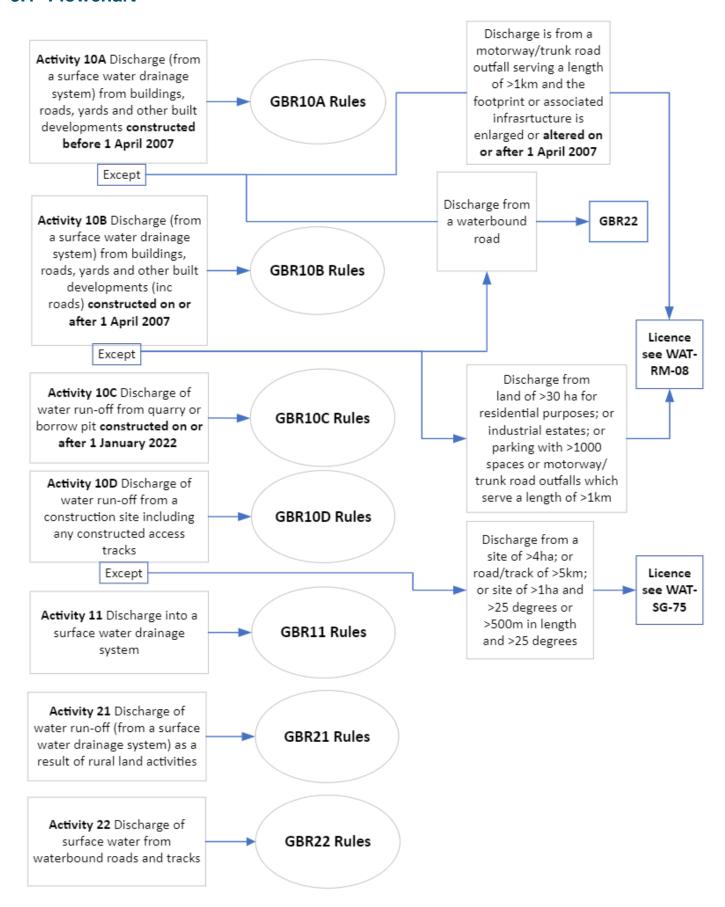
The General Binding Rules for discharges of water run-off and discharge into a surface water drainage system are contained in Schedule 3 of the regulations, under Activities 10A, B, C, D and 11, 21 and 22. The activities, associated general binding rules and some explanation for each can be found in section 4.

Table 2.

Water run-off activity for each GBR	Activity applies to
Activity 10A	The discharge of water run-off from a surface water drainage system to the water environment from buildings, roads other than waterbound roads, yards and any other built developments constructed before 1 April 2007, subject to the exceptions detailed in flowchart 3.1 below.
Activity 10B	The discharge of water run-off <b>from a surface water drainage system to the water environment</b> from buildings, roads other than waterbound roads, yards and any other built developments constructed on or after 1 April 2007, subject to the exceptions detailed in flowchart 3.1 below.
Activity 10C	The discharge of water run-off from quarries and borrow pits constructed on or after 1 January 2022.
Activity 10D	The discharge of water run-off from a construction site to the water environment, subject to the criteria/ exceptions detailed in flowchart 3.1 below.
Activity 11	Discharge into a surface water drainage system.

Activity 21	Subject to GBRs 10A to 10D above and the rules related to them,
	the discharge of water run-off via a surface water drainage system
	to the water environment as a result of rural land activities.
Activity 22	The discharge of surface water from waterbound roads and tracks
	to the water environment, including during their construction and
	maintenance.

#### 3.1 Flowchart



# 4. The GBR Rules – with guidance

Text in *italics* is copied from the GBR. Please refer to the GBR in the legislation for the most up to date wording as this document is solely to serve as guidance. Refer to section 1.1 for terminology explanations.

#### 4.1 GRB10A

#### **Main Objectives:**

- To require a minimum standard of quality for the water run-off discharge such that it does not result in pollution
- To prohibit specific areas at high risk of contamination from draining to the surface water drainage system
- To specify maintenance requirements and preventative measures for the surface water drainage system

#### Scope:

The discharge of water run-off from a surface water drainage system to the water environment from buildings, roads other than waterbound roads, yards, or any other built development constructed before 1 April 2007, with the exception of run-off from any motorway or trunk road where—

- i. any one outfall serves a length of road greater than 1km, and
- ii. the footprint of the road or its associated infrastructure is enlarged or otherwise altered on or after 1 April 2007.

Waterbound roads are covered by GBR22, (section 4.7) and any other exceptions require to be authorised by a CAR Licence. See <u>WAT-RM-08 Regulation of Sustainable Urban Drainage</u>.

#### Rules:

a. All reasonable steps must be taken to ensure that the discharge does not result in pollution of the water environment,

This rule applies generally to protect the water environment by requiring that reasonable steps are taken ensure that relevant discharges do not result in pollution. Pollution is explicitly defined in The Water Environment and Water Services (Scotland) Act 2003 (Part 1, Chapter 3, Section 20(6))

- b. the discharge must not
  - i. contain any trade effluent or domestic sewage,
  - ii. result in visible discolouration, iridescence, foaming or sewage fungus in the water environment, or

This rule is included so that it specifies a minimum standard of compliance for all water runoff outfalls in order to prevent pollution.

iii. contain any water run-off from a construction site,

Water run-off from a construction site is covered by GBR10D

c. the discharge must not result in the destabilisation of the banks or bed of the receiving surface water,

The purpose of this rule is primarily to prevent scouring in the receiving waters or bank erosion due to a badly designed surface water drainage system, including any associated SUD system.

For design guidance to ensure compliance with this rule, reference should be made to the SUDS Manual (CIRIA C753) and also WAT-SG-28: Good Practice Guide – Intakes and Outfalls. For rural yards and steadings the following guidance is useful Rural Sustainable Drainage Systems: A practical design and build guide for Scotland's farmers and landowners.

- d. all facilities with which the surface water drainage system is equipped to avoid pollution, including oil interceptors, silt traps and SUD system attenuation, settlement and treatment facilities, must be maintained in good order and repair,
- e. all reasonable steps must be taken to ensure that any matter liable to block, obstruct, or otherwise impair the ability of the surface water drainage system to avoid pollution of the water environment is prevented from entering the drainage system.

Where surface water drainage systems are equipped with treatment facilities (SUDS or otherwise), regular maintenance is required to maintain the standard of the discharge and prevent pollution. This should include regular inspections to check for blockages in inlet and outlet pipes etc and to ensure any treatment system, where present, is functioning as designed.

#### 4.2 GBR10B

#### **Main Objectives:**

- To require a minimum standard of quality for the water run-off discharge such that it does not result in pollution
- To require the provision of Sustainable Urban Drainage Systems (SUDS)
- To prohibit specific areas at high risk of contamination from draining to the surface water drainage system
- To specify maintenance requirements and preventative measures for the surface water drainage system

#### Scope:

The discharge of water run-off from a surface water drainage system to the water environment from buildings, roads other than waterbound roads, yards, or any other built development constructed on or after 1 April 2007, with the exception of run-off from—

- i. land of more than 30 hectares which is used for residential premises,
- ii. industrial estates,
- iii. land used as a motorised vehicle parking area with more than 1,000 parking spaces,
- iv. motorways and trunk roads where any one outfall serves a length of road greater than 1km.

Waterbound roads are covered by GBR22, (section 4.7) and any other exceptions require to be authorised by a CAR Licence. See <u>WAT-RM-08 Regulation of Sustainable Urban Drainage</u>.

#### Rules:

a. All reasonable steps must be taken to ensure that the discharge does not result in pollution of the water environment,

This rule applies generally to protect the water environment by requiring that reasonable steps are taken ensure that relevant discharges do not result in pollution. Pollution is explicitly defined in The Water Environment and Water Services (Scotland) Act 2003 (Part 1, Chapter 3, Section 20(6))

- b. the discharge must not
  - i. contain any trade effluent or domestic sewage,
  - ii. result in visible discolouration, iridescence, foaming or sewage fungus in the water environment, or

This rule is included so that it specifies a minimum standard of compliance for all run-off water outfalls in order to prevent pollution.

A note on allowing an authorised (Registered or Licensed under CAR) sewage discharge to use a surface water runoff pipe as a conduit to a watercourse. As the scope of this GBR is "The discharge of water run-off from a surface water drainage system to the water environment from...." And water run-off is defined at Schedule 3, part 2 of CAR as: "any water from rainfall or any meltwater from ice or snow flowing over or horizontally through the surface of the ground and any matter picked up by that water as it does so." A discharge of sewage through a surface water drainage system (i.e. not sewage that has been picked up by water or meltwater as mentioned in the definition of "water run-off") is not covered by GBR 10B and so doesn't constitute a breach of this GBR.

iii. contain any water run-off from a construction site,

Water run-off from a construction site is covered by GBR10D

c. the discharge must not result in the destabilisation of the banks or bed of the receiving surface water.

The purpose of this rule is primarily to prevent scouring in the receiving waters or bank erosion due to a badly designed surface water drainage system, including any associated SUD system.

For design guidance to ensure compliance with this rule, reference should be made to the <u>SUDS Manual (CIRIA C753)</u> and also <u>WAT-SG-28: Good Practice Guide – Intakes and Outfalls.</u>

- d. the development must be drained by a SUD system equipped to avoid pollution of the water environment, unless
  - i. the run-off is from a development that is a single dwelling and its curtilage, or
  - ii. the discharge is to coastal water,

Rule 10B(d) requires that all run-off water (including roof water) from built developments completed after 1st April 2007 (except for scenarios (i) and (ii) above) be 'drained by a SUD system equipped to avoid pollution of the water environment'.

See section 5.1 for guidance on SUD systems.

Developments comprised of a single dwelling and its curtilage do not require a SUDS, though this would still be encouraged where possible (e.g., by use of soakaways or porous pipes/filter drains). Rule 10B(d) (i) is therefore effectively an exemption from requiring SUDS for dwellings of the kind described.

Under rule 10B(d) (ii) developments constructed on or after 1 April 2007 must be drained by a SUD system equipped to avoid pollution of the water environment unless the discharge is to coastal water, however there is still a requirement to comply with rule 10B(a) to ensure that all reasonable steps are taken to ensure that the discharge does not result in pollution of the water environment. Even where SUDS are not used, other treatment such as oil interceptors may still be required to prevent pollution.

However, there are **exceptional** circumstances where SEPA may identify through a risk assessment that SUDS are necessary to protect a coastal water (e.g. where there is a risk of affecting compliance of a designated bathing or shellfish water, discharge of dangerous/priority substances).

In such circumstances, SEPA may escalate control of that activity from a GBR to a licence. Refer to *WAT-RM-08: Regulation of Sustainable Urban Drainage Systems (SUDS)* for further details. It should be noted that where the GBR provides an exemption from requiring SUDS, the other rules continue to apply. Therefore, in these cases, there is still an overriding requirement that the discharge does not result in pollution of the water environment and therefore pollution control measures may be required (e.g. to prevent discharges of contaminants such as oil / metals). There are no exemptions from this rule.

- e. the discharge must not contain any water run-off from
  - i. any fuel delivery areas constructed on or after 1 April 2007, or any areas where vehicles, plant and equipment are refuelled constructed on or after 1 April 2007,
  - ii. vehicle loading or unloading bays constructed on or after 1 April 2007 where potentially polluting matter is handled, or
  - iii. oil and chemical storage handling and delivery areas constructed on or after 1 April 2007,

On many development sites, there are certain 'high risk' areas of activity (detailed in (i) – (iii) above) where it would not be appropriate to drain the water run-off to a surface water drainage system from where it will be transported to and discharged into the water environment. This is due to the risk of spillage and the polluting nature of the substances involved. This rule effectively precludes developments constructed on or after 1st April 2007 from being authorised under the GBR, should any such areas or bays they contain be connected to a surface water drainage system. This also applies to relevant buildings, roads and yards.

Scottish Water's preferred method of drainage is separate systems for drainage of foul and surface water, and it does not normally accept water run-off to the foul or existing combined sewer. In exceptional circumstances where such connections are being considered, Scottish Water should be consulted to establish the acceptability of the proposal and to determine their specific drainage requirements.

If Scottish Water does not allow connection to the foul or existing combined sewer, it may be possible to contain such drainage and tanker it away for treatment or authorised disposal. Use of canopies, or undertaking these activities indoors, will eliminate or significantly reduce the amount of water run-off draining from such areas.

If none of these options is feasible, and discharge to the water environment is the only possibility, then this activity will require to be licensed as it is not authorised under the GBR. The licence will then specify the controls, including levels and type of SUDS treatment, and any additional treatment such as oil interceptors, required to protect the receiving waters.

f. all facilities with which the surface water drainage system is equipped to avoid pollution, including oil interceptors, silt traps and SUD system attenuation, settlement and treatment facilities, must be maintained in good order and repair,

Regular maintenance is required to maintain the standard of the discharge and prevent pollution. This should include regular inspections to check for blockages in inlet and outlet pipes etc and to ensure any treatment system, where present, is functioning as designed.

g. all reasonable steps must be taken to ensure that any matter liable to block, obstruct, or otherwise impair the ability of the surface water drainage system to avoid pollution of the water environment is prevented from entering the drainage system.

For example, if a heap of soil was being stored on top of a porous car park surface, rule 10B(g) may be breached because the SUDS treatment may become impaired from the premature blockage of the voids in the car park's underlying construction.

Where surface water drainage systems are equipped with treatment facilities (SUDS or otherwise), regular maintenance is required to maintain the standard of the discharge and prevent pollution. This should include regular inspections to check for blockages in inlet and outlet pipes etc and to ensure any treatment system, where present, is functioning as designed.

#### 4.3 GBR10C

#### **Main Objectives:**

- To require a minimum standard of quality for the water run-off discharge such that it does not result in pollution
- To require the provision of Sustainable Urban Drainage Systems (SUDS) or equivalent systems
- To prohibit specific areas at high risk of contamination from draining to the surface water drainage system
- To specify maintenance requirements and preventative measures for the surface water drainage system

#### Scope:

The discharge of water run-off from a quarry or borrow pit constructed on or after 1 January 2022.

#### Rules:

a. All reasonable steps must be taken to ensure that the discharge does not result in pollution of the water environment,

This rule applies generally to protect the water environment by requiring that reasonable steps are taken ensure that relevant discharges do not result in pollution. Pollution is explicitly defined in The Water Environment and Water Services (Scotland) Act 2003 (Part 1, Chapter 3, Section 20(6))

- b. the discharge must not
  - i. contain any trade effluent or domestic sewage, or
  - ii. result in visible discolouration, iridescence, foaming or sewage fungus in the water environment.

This rule is included so that it specifies a minimum standard of compliance for all water runoff outfalls in order to prevent pollution.

c. the discharge must not result in the destabilisation of the banks or bed of the receiving surface water,

The purpose of this rule is primarily to prevent scouring in the receiving waters or bank erosion due to a badly designed surface water drainage system, including any associated SUD system.

For design guidance to ensure compliance with this rule, reference should be made to the <u>SUDS Manual (CIRIA C753)</u> and also <u>WAT-SG-28: Good Practice Guide – Intakes and</u> Outfalls.

- d. the discharge must not contain any water run-off from
  - i. any fuel delivery areas constructed on or after 1 April 2007, or any areas where vehicles, plant and equipment are refuelled constructed on or after 1 April 2007,
  - ii. vehicle loading or unloading bays constructed on or after 1 April 2007 where potentially polluting matter is handled, or
  - iii. oil and chemical storage handling and delivery areas constructed on or after 1 April 2007,

On many development sites, there are certain 'high risk' areas of activity (detailed in (i) – (iii) above) where it would not be appropriate to drain the water run-off to a surface water drainage system from where it will be transported to and discharged into the water environment. This is due to the risk of spillage and the polluting nature of the substances involved. This rule effectively precludes developments constructed on or after 1st April 2007 from being authorised under the GBR, should any such areas or bays they contain be connected to a surface water drainage system. This also applies to relevant buildings, roads and yards.

Scottish Water's preferred method of drainage is for separate systems, and it does not normally accept water run-off to the foul or existing combined sewer. In exceptional circumstances where such connections are being considered, Scottish Water should be

consulted to establish the acceptability of the proposal and to determine their specific drainage requirements.

If Scottish Water does not allow connection to the foul sewer, it may be possible to contain such drainage and tanker it away for treatment or authorised disposal. Use of canopies, or undertaking these activities indoors, will eliminate or significantly reduce the amount of water run-off draining from such areas.

If none of these options is feasible, and discharge to the water environment is the only possibility, then this activity will require to be licensed as it is not authorised under the GBR. The licence will then specify the controls, including levels and type of SUDS treatment, and any additional treatment such as oil interceptors, required to protect the receiving waters.

e. the quarry or borrow pit must be drained by a SUD system or equivalent system equipped to avoid pollution of the water environment,

See section 5.1 for guidance on SUD systems and section 5.2 on equivalent systems

f. all facilities with which the surface water drainage system is equipped to avoid pollution, including oil interceptors, silt traps and SUD system attenuation, settlement and treatment facilities, must be maintained in good order and repair,

It is important to note the wording 'equipped to avoid pollution'. The installation of inadequate equivalent systems will not satisfy this rule on the grounds that they will not be equipped to avoid pollution.

Where surface water drainage systems are equipped with treatment facilities (SUDS or otherwise), regular maintenance is required to maintain the standard of the discharge and prevent pollution. This should include regular inspections to check for blockages in inlet and outlet pipes etc and to ensure any treatment system, where present, is functioning as designed.

h. all reasonable steps must be taken to ensure that any matter liable to block, obstruct, or otherwise impair the ability of the surface water drainage system to avoid pollution of the water environment is prevented from entering the drainage system.

Where surface water drainage systems are equipped with treatment facilities (SUDS or otherwise), regular maintenance is required to maintain the standard of the discharge and prevent pollution. This should include regular inspections to check for blockages in inlet and outlet pipes etc and to ensure any treatment system, where present, is functioning as designed.

#### 4.4 GBR10D

#### Main Objectives:

- To require a minimum standard of quality for the water run-off discharge such that it does not result in pollution
- To require the provision of Sustainable Urban Drainage Systems (SUDS) or equivalent systems equipped to avoid pollution from construction site water run-off
- To prohibit specific areas at high risk of contamination from draining to the surface water drainage system
- To specify maintenance requirements and preventative measures for the surface water drainage system

#### Scope:

The discharge of water run-off from a construction site to the water environment where the site, including any constructed access tracks, does not—

- i. exceed 4 hectares,
- ii. contain a road or track length in excess of 5km, or
- iii. include any area of more than 1 hectare or any length of more than 500 metres on ground with a slope in excess of 25°.

All exceptions require to be authorised by a CAR Licence. See <u>WAT-SG-75 Sector Specific</u> Guidance: Construction Sites and Water run-off from Construction Sites.

The description of Activity 10D includes all **drained** water run-off from construction sites below the stated thresholds, including water pumped from construction site excavations. GBR10D cannot be used to control diffuse pollution caused by overland (sheet flow) run-off from construction sites unless the runoff is discharged via a surface water drainage system. It should be noted that even where the final water run-off discharge from a completed development site is to be licensed, GBR10D is applicable during the construction phase.

#### Rules:

a. All reasonable steps must be taken to ensure that the discharge does not result in pollution of the water environment,

This rule applies generally to protect the water environment by requiring that reasonable steps are taken ensure that relevant discharges do not result in pollution. Pollution is explicitly defined in The Water Environment and Water Services (Scotland) Act 2003 (Part 1, Chapter 3, Section 20(6))

- b. the discharge must not
  - i. contain any trade effluent or domestic sewage, or
  - ii. result in visible discolouration, iridescence, foaming or sewage fungus in the water environment.

This rule is included so that it specifies a minimum standard of compliance for all water runoff outfalls in order to prevent pollution.

c. the discharge must not result in the destabilisation of the banks or bed of the receiving surface water,

The purpose of this rule is primarily to prevent scouring in the receiving waters or bank erosion due to a badly designed surface water drainage system, including any associated SUD system.

For design guidance to ensure compliance with this rule, reference should be made to the <u>SUDS Manual (CIRIA C753)</u> and also <u>WAT-SG-28: Good Practice Guide – Intakes and Outfalls.</u>

d. the discharge must not contain any water run-off from any built developments, unless during construction those developments are drained by a SUD system or equivalent system equipped to avoid pollution of the water environment,

The 'built environment' also encompasses the construction phase and the requirement for the construction phase is a drainage system equipped to avoid pollution, acting as a SUD system equivalent and the completed development requires a SUD system. See section 4.8 for guidance on SUD systems and section 4.9 on equivalent systems

- e. the discharge must not contain any water run-off from
  - i. any fuel delivery areas constructed on or after 1 April 2007, or any areas where vehicles, plant and equipment are refuelled constructed on or after 1 April 2007,
  - ii. vehicle loading or unloading bays constructed on or after 1 April 2007 where potentially polluting matter is handled, or
  - iii. oil and chemical storage handling and delivery areas constructed on or after 1 April 2007,

On many development sites, there are certain 'high risk' areas of activity (detailed in (i) – (iii) above) where it would not be appropriate to drain the water run-off to the water environment or a surface water sewer. This is due to the risk of spillage and the polluting nature of the substances involved. This rule effectively precludes such areas constructed after 1st April 2007 from being authorised under the GBR, should they be connected to the surface water drainage system.

Scottish Water's preferred method of drainage is for separate systems, and it does not normally accept water run-off to the foul or existing combined sewer. In exceptional circumstances where such connections are being considered, Scottish Water should be consulted to establish the acceptability of the proposal and to determine their specific drainage requirements.

If Scottish Water does not allow connection to the foul sewer, it may be possible to contain such drainage and tanker it away for treatment or authorised disposal. Use of canopies, or undertaking these activities indoors, will eliminate or significantly reduce the amount of water run-off draining from such areas.

If none of these options is feasible, and discharge to the water environment is the only possibility, then this activity will require to be licensed as it is not authorised under the GBR. The licence will then specify the controls, including levels and type of SUDS treatment, and any additional treatment such as oil interceptors, required to protect the receiving waters.

- f. all parts of a construction site on which
  - i. operations first commenced on or after 1 June 2018, and
  - ii. any works are to be undertaken, or any vehicles are to be operated or parked, must be drained by a surface water drainage system with capacity to accommodate the maximum volume of run-off that would reasonably be expected to occur from that land during the period of construction,
- g. all facilities with which the surface water drainage system is equipped to avoid pollution, including oil interceptors, silt traps and SUD system attenuation, settlement and treatment facilities, must be maintained in good order and repair,

Where surface water drainage systems are equipped with treatment facilities (SUDS or otherwise), regular maintenance is required to maintain the standard of the discharge and prevent pollution. This should include regular inspections to check for blockages in inlet and outlet pipes etc and to ensure any treatment system, where present, is functioning as designed.

h. all reasonable steps must be taken to ensure that any matter liable to block, obstruct, or otherwise impair the ability of the surface water drainage system to avoid pollution of the water environment is prevented from entering the drainage system.

Where surface water drainage systems are equipped with treatment facilities (SUDS or otherwise), regular maintenance is required to maintain the standard of the discharge and prevent pollution. This should include regular inspections to check for blockages in inlet and outlet pipes etc and to ensure any treatment system, where present, is functioning as designed.

#### 4.5 GBR11

#### Main Objectives:

- To prohibit pollutants from being disposed of into the surface water drainage system
- To specify preventative measures for the surface water drainage system
- To prohibit sewage or trade effluent being discharged to the surface water drainage system.
- To help achieve the amenity objectives of SUDS
- To minimise runoff into the surface water drainage system from exposed areas of soil on construction sites.

#### Scope:

Discharge into a surface water drainage system

Contains rules for discharges **into**, as opposed to **from**, a surface water drainage system. This activity applies to all surface water drainage systems, new and existing.

In the event of a pollution incident or threat of an incident due to illegal discharges to the **public** drainage system, the onus will be on Scottish Water to take action, as appropriate, under the relevant legislation. However, SEPA, as the enforcing authority for the GBRs, will also consider action in cases where there is a clear breach of the rules.

Where the run-off water discharge from a site may be licensed (e.g., from an Industrial Estate), the rules will still apply to control discharges **into** a surface water drainage system on that site as this is a separate and distinct activity under CAR.

#### Rules:

a. Oil, paint thinners, pesticides, detergents, disinfectants or other pollutants must not be disposed of into a surface water drainage system or onto any surface that drains into a surface water drainage system;

This rule is specifically intended to control the commonest types of pollutants illegally disposed of into surface water drains. However, the list is not exhaustive and includes any potential pollutant. The intention is to prohibit anything being deliberately added to the water run-off, the direct tipping of pollutants straight into a gully or indirect disposal onto surfaces which may subsequently wash into surface water drains. The commercial washing of vehicles or wheelie bins would be obvious examples.

The rule is not intended to be used to control domestic car or wheelie bin washing activities etc unless these involve the wilful and persistent disposal of detergents and/or other pollutants to surface water drains. In the majority of cases, issuing good pollution prevention advice will normally suffice. SEPA would refer to <a href="SEPA's Enforcement Policy">SEPA's Enforcement Policy</a> and Guidance on the use of Enforcement Action before considering the most appropriate course of action for the circumstance.

b. any matter liable to block, obstruct or otherwise impair the ability of the surface water drainage system to avoid pollution of the water environment must not be disposed of into a surface water drainage system or onto a surface that drains into a surface water drainage system;

Regular maintenance is required to maintain the standard of the discharge and prevent pollution. This should include regular inspections to check for blockages in inlet and outlet pipes.

 c. domestic sewage or trade effluent must not be discharged into any surface water drainage system; and Discharges of domestic sewage or effluent from trade premises (such as from the commercial washing of vehicles and vehicle wash bays) into surface water drainage systems are a common problem. The effect of this rule is that such activities would be an offence and will allow action to be taken as soon as a problem becomes apparent e.g., evidence of domestic sewage or excessive foaming in a SUDS pond or swale.

It should be noted that capital investment may be required to address historical crossconnections and if this is the case, relevant schemes should be identified as an emerging need in Scottish Water's investment planning process.

However, developers and builders should ensure that when a new site is built, all surface water sewers are checked for any wrong connections which if found, should be rectified.

d. on construction sites, any area of exposed soil from which the discharge of water run-off to the water environment is authorised under activity 10D, and the period of time during which such soil is exposed, must be the minimum required to facilitate the construction works being undertaken at that site.

Pollution from construction sites commonly occurs due to large areas of stripped soil being exposed to rainfall over a protracted period. This can result in water runoff which contains high levels of suspended solids.

Good construction site practice involves minimising the extent of such exposed areas and the duration that these areas are exposed. Rule 11(d) requires the operator of a construction site to limit exposed areas of soil to what would be considered as the 'minimum required' to enable the construction works to be carried out.

Rule 11 (d) applies to any areas of exposed soil which **drain into a surface water drainage system**. The rule cannot be used to control diffuse pollution caused by overland (sheet flow) run-off from construction sites unless this runoff is discharged into a surface water drainage system.

#### 4.6 GBR21

#### **Main Objectives:**

- To require a minimum standard of quality for rural water run-off discharges, such that it does not result in pollution.
- To require that the discharge does not result in destabilisation of the banks or bed of the receiving water.

#### Scope:

The discharge of water run-off via a surface water drainage system to the water environment as a result of rural land activities (without prejudice to the operation of activities GBR10A, 10B, 10C and 10D, and the rules related to them)

#### Rules:

a. Water must be discharged in a way which minimises the risk of pollution of any river, burn, ditch, wetland, loch, transitional water or coastal water; and

This rule applies generally to protect the water environment by requiring that reasonable steps are taken ensure that relevant discharges do not result in pollution. Pollution is explicitly defined in The Water Environment and Water Services (Scotland) Act 2003 (Part 1, Chapter 3, Section 20(6))

b. no discharge from drainage may result in the destabilisation of the banks or bed of the receiving river, burn, ditch, wetland, loch, transitional water or coastal water.

The purpose of this rule is primarily to prevent scouring in the receiving waters or bank erosion due to a badly designed drainage system.

The <u>Farming and Water Scotland website</u> has good advice on pollution control from agriculture.

## 4.7 GBR22

#### **Main Objectives:**

- To minimise pollutants from water run-off from waterbound roads
- To prevent scouring in the receiving waters

#### Scope:

The discharge of surface water from waterbound roads and tracks to the water environment, including during the construction and maintenance of such roads and tracks.

#### Rules:

- a. All reasonable steps must be taken to ensure that any discharge does not result in pollution of the water environment,
- b. any discharge must not result in visible discolouration, iridescence, foaming or sewage fungus in the water environment, and

These rules apply generally to protect the water environment by requiring that reasonable steps are taken ensure that relevant discharges do not result in pollution. Pollution is explicitly defined in The Water Environment and Water Services (Scotland) Act 2003 (Part 1, Chapter 3, Section 20(6))

c. any discharge must not result in the destabilisation of the banks or bed of the receiving surface water.

The purpose of this rule is primarily to prevent scouring in the receiving waters or bank erosion due to a badly designed drainage system.

# 5. Drainage Systems

## **5.1 SUDS Systems**

Rules 10B(d), 10C(f) and 10D(d) are notable in that SUDS are a **statutory requirement** for built developments as is the treatment (via SUDS or equivalent systems) of run-off water from construction sites, quarries and borrow pits drained via a surface water drainage system.

Rule 10B(d) 10C(f) and 10D(d) automatically require that all SUDS or equivalent systems are equipped to avoid pollution of the water environment, irrespective of whether SEPA has been consulted on the design prior to construction. This is significant because sometimes SUDS are designed purely for flow control without adequate regard to water quality.

It should be noted that the requirement to provide SUDS includes runoff from redevelopment sites as well as 'green-field' sites.

Under the GBR10B, roof water also requires SUDS treatment. However, SEPA recognises that there are situations where discharges of certain run-off water pose a very low risk of pollution or impact on receiving water flow e.g., roof water discharging to transitional waters (estuaries) or other waters with very high dilution. In such cases, **minimal** SUDS measures as appropriate to the situation will be acceptable. e.g., any 'source control' measures, short length of filter trench, partial soakaway etc.

The degree of SUDS treatment should always be appropriate to the risk of pollution from a particular development, considering the nature of the receiving environment. This is explained in further detail in <a href="https://www.water.com/water.com

# 5.2 Equivalent Systems

Rules 10C(e) and 10D(d) allow 'equivalent systems' to SUDS to be used during the **construction phase** of a development.

The following section provides guidance on the interpretation of 'equivalent systems equipped to avoid pollution of the water environment'.

It is recognised that treatment of run-off water may not always be carried out solely through use of 'traditional' SUDS. For example, vortex settlement chambers and oil interceptors may be appropriate as part of the overall SUDS management train to protect a SUDS pond from excess silt or oil contamination and proprietary underground storage cells/tanks may be suitable for attenuation of run-off water. However, **such devices used in isolation would not constitute SUDS for a completed development**.

There may be cases however where, as a temporary solution, the use for example of vortex settlement chambers may be justified on a minor scale such as on small construction sites where traditional settlement ponds may not be practical.

Whilst 'equivalent systems' may be satisfactory as a short-term solution, e.g., for immediate pollution control of construction site run-off (Rule 10D(d)), these do not meet the longer-term treatment, attenuation and amenity objectives of SUDS. Hence 'equivalent systems' are not permissible for treatment of runoff water from completed developments (Rule 10B(d)).

## References

- WAT-RM-08 Regulation of Sustainable Urban Drainage
- WAT-SG-28: Good Practice Guide Intakes and Outfalls
- WAT-SG-31: SEPA Special Requirements for Civil Engineering Contracts for the Prevention of Pollution
- WAT-SG-32: Guidance on Special Requirements for Civil Engineering Contracts
- WAT-SG-75: Sector Specific Guidance Water Run-Off from Construction Sites
- Agricultural Regulation (www.sepa.org.uk)
- <u>CIRIA website</u>
- SUDS Manual (CIRIA C753)
- UK SUDS Tools for Sustainable Drainage Systems HR Wallingford
- <u>Guidance for the Prevention of Pollution</u> (GPPs), available from the NetRegs website (www.netregs.org.uk/)
- SEPA Enforcement Policy and Guidance
- Sewers for Scotland 4<sup>th</sup> Edition, 2018 (www.scottishwater.co.uk)
- Water Assessment and Drainage Assessment Guide (WADAG)
- Roads and Tracks operations note 25

For information on accessing this document in an alternative format or language please contact SEPA by emailing to <a href="mailto:equalities@sepa.org.uk">equalities@sepa.org.uk</a>

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http://contactscotland-bsl.org/

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