ENVIRONMENTAL Standards Scotland Ìrean Àrainneachdail na h-Alba

Consideration of SEPA's duty to enforce descriptive licence conditions as required by the Controlled Activities Regulations

Case Reference IESS.22.027

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1. Executive summary

1.1 Authorisations are a requirement of the Water Environment (Controlled Activities) (Scotland) Regulations 2011¹ ('the CAR Regulations') to control any activity that has the potential to have a significant adverse impact on the water environment and/or other water users. The authorisations are imposed by the Scottish Environment Protection Agency (SEPA) through the setting of licence conditions. Compliance with licence conditions is the responsibility of the person or company named on the licence.

1.2 Environmental Standards Scotland (ESS) received a representation about concerns over how SEPA had handled reports of sewage related debris from Waste Water Treatment Works (WWTWs). The representation claimed that the existence of such debris highlighted a breach of a number of local WWTW licence conditions and that SEPA's lack of action was non-compliant with its duties under the CAR Regulations.

1.3 During the consideration of the representation, ESS engaged with SEPA and scrutinised its relevant policies, procedures and supporting information. ESS also scrutinised the legislative framework in respect of SEPA's enforcement powers. While the legislative framework affords SEPA discretion on how it enforces such reports, ESS found that the guidance on how SEPA implements this discretion could be improved.

1.4 ESS made recommendations for improvement, specifically around the issue of whether SEPA's procedures were suitably robust to protect the water environment and water users as intended by the requirements of the CAR Regulations. The recommendations were accepted and implemented by SEPA. Accordingly, ESS considers that informal resolution has been achieved, as SEPA has produced specific guidance for the assessment of compliance with the descriptive conditions in the WWTW licences in response to our comments and concerns.

¹ <u>The Water Environment (Controlled Activities) (Scotland) Regulations 2011</u> (legislation.gov.uk)

2. Background to the representation

2.1 The representation was submitted by a Non-Governmental Organisation (NGO), acting on behalf of a community group which was concerned over the discharge of sewage into the River Almond. The community group advised that there is often clear visual evidence of sewage pollution in the River Almond in the vicinity of three WWTWs in the form of debris such as wet wipes. Photographic evidence was included in the representation in support of their view that the WWTWs in question had breached their licence conditions on a number of occasions.

2.2 Before approaching ESS, the community group raised their concerns with SEPA. However, the group was dissatisfied with the response and made formal complaints to SEPA about its handling of their reports. SEPA did not uphold the complaints.

2.3 Reasons provided by SEPA included: conflicting dates of pollution reports received versus those recorded; all pollution reports were responded to by SEPA; and all three WWTWs had been inspected by SEPA officers within the past 12 months with no concerns or issues identified. In addition, SEPA advised that the photographic evidence submitted by the community group could not be used by SEPA for enforcement purposes.

2.4 The outcome sought in the representation was for ESS to undertake an investigation into these issues, with a view to taking enforcement action against SEPA to ensure that it complies with its statutory duties. Supporting information was included with the representation, including:

- previous correspondence with SEPA, including the complaint correspondence
- freedom of information request seeking copies of the Whitburn, East Calder and Blackburn WWTW CAR licences
- relevant background information including 37 photographs evidencing apparent breaches of the descriptive conditions in the CAR licences

2.5 ESS considered this case to be within our remit, due to the following factors:

- the representation relates to a public authority SEPA
- the representation relates to environmental law the CAR Regulations

- SEPA's decision making and assessment processes, as described in the representation, may constitute a failure to comply with environmental law or a failure to implement environmental law effectively
- while the representation relates specifically to an individual regulatory decision, ESS considered that broader concerns are raised over SEPA's policies and guidance in this area

3. Controlled water activities authorisations

3.1 A controlled activity is any activity which directly or indirectly has, or is likely to have, a **significant adverse impact** on the water environment. If an activity is controlled it means that it has to be authorised. Authorisations of such activity are undertaken and regulated by SEPA². Authorisations are made through the following:

- 1. General Binding Rules (GBR)³
- 2. Registrations⁴
- 3. Water Use Licences

3.2 Examples of controlled activities are engineering works in rivers and lochs, water abstraction and activities liable to cause pollution of the water environment, **such as the discharge of sewage from a WWTW**.

3.3 A licence is required where controls or constraints upon the activity are to be imposed by SEPA. Licences allow for site-specific conditions to be set to protect the water environment from activities that pose a higher risk. Licences can cover linked activities on several sites over a wide area, as well as single or multiple activities on a single site.

² Regulation 8 of the CAR Regulations gives SEPA the power to authorise controlled activities, and states that it must impose such conditions as it considers necessary of expedient for the purposes of protection of the water environment.

³ GBRs provide statutory controls over low risk activities. Anyone undertaking an activity which falls within the scope of GBRs does not have to contact SEPA, but must adhere to any rule laid out which relates to the activity.

⁴ Registrations cover low risk activities which cumulatively pose a risk to the water environment. A Registration authorises an activity and any person can then carry out that activity. 3.4 A key feature of CAR licences, unlike GBRs and Registrations, is that they require the applicant to nominate a 'responsible person' (i.e. an individual/partnership/company) to be held accountable for securing compliance with the terms of the licence. WWTW operators require a licence.

3.5 Under Regulation 31(1) of the CAR Regulations, SEPA has a duty to monitor compliance with, and to enforce the provisions of, the CAR Regulations. Under Regulation 32, SEPA may serve an enforcement notice on the responsible person if SEPA is of the opinion that the activity has contravened an authorisation, or has caused significant adverse impacts on the water environment.

4. The WWTW licencing regime

4.1 For the operation of WWTWs, SEPA issues Water Use Licences with appropriate conditions necessary or expedient for: the protection or enhancement of the water environment; or the protection of other users of the water environment. These conditions are required under Regulation 8 of the CAR Regulations.

4.2 SEPA confirms that all WWTW licences include site specific conditions based on modelling carried out at the time of determination of the application for the licence. The site specific conditions contain numeric limit values that the WWTW operator must comply with, and demonstrate compliance to SEPA through operator self-monitoring. In addition, SEPA also includes descriptive conditions on WWTW licences as an additional way to regulate environmental impacts on the water environment arising from the operation of a WWTW.

4.3 The following descriptive conditions are used to ensure that discharges from WWTWs shall not cause:

(a) a **significant** visible impact on the receiving waters due to the presence of oil and/or grease, or

(b) the **significant** deposition of sewage solids on the banks or bed of the receiving waters, or

- (c) significant discoloration of the receiving waters, or
- (d) significant increased foaming in the receiving waters, or
- (e) significant growth of sewage fungus in the receiving waters

SEPA uses an environmental event category framework (Annex 1) for CAR compliance and enforcement purposes. As a general rule SEPA would expect to consider breaches of the descriptive conditions set out above to fall within either a Category 1 (major) or Category 2 (significant) environmental event. However, SEPA advises that in assessing whether a breach of licence condition(s) has occurred, the corresponding regulatory response depends on the full circumstances surrounding the event (for example, type of impact, weather conditions, root cause etc).

5. Initial engagement with SEPA

5.1 The material issue raised within the representation is the action which SEPA should take when faced with a report of a breach of WWTW descriptive licence conditions.

5.2 In the case of this representation, the specific condition which was alleged to have been breached is that the operator shall not cause 'the **significant** deposition of sewage solids on the banks or bed of the receiving waters'.

5.3 ESS approached SEPA to understand better how it assesses the term 'significant' with a view to determining the following:

- does SEPA have sufficiently detailed and robust policies and guidance in place to ensure compliance with its duties under the CAR Regulations, specifically when assessing potential breaches of the descriptive licence conditions?
- do the concerns raised in the representation point towards a potential wider systemic issue in how SEPA complies with or implements the broader CAR regulatory/enforcement regime?

5.4 Following SEPA's response, it remained unclear to ESS how the term 'significant' as outlined within the descriptive licence conditions was considered, and how this process aligns to the broader environmental event category framework when assessing the pollution incident category and the regulatory response required.

5.5 While the environmental event category framework may be useful when assessing potential breaches of licence conditions, ESS considered that the use of the terms 'extensive' and 'significant' in relation to amenity impact within the framework (Annex 1 outlined in bold and red) introduced further complexity as to how these would be assessed.

5.6 ESS received limited information on how SEPA assessed the significance or weighting of the contributing factors relating to the event/breach, or when a regulatory response would be triggered and enforcement action taken.

5.7 It was also unclear whether this framework was routinely and consistently used when monitoring and enforcing compliance against the descriptive licence conditions.

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5.8 For these reasons, ESS concluded that SEPA's decision making process for assessing compliance with the descriptive licence conditions, which is an essential stage when assessing WWTW operations, raised issues concerning the effectiveness of how environmental law is being implemented by SEPA.

5.9 In view of this, ESS invited SEPA to resolve matters informally.

6. Informal resolution process

6.1 Following the assessment of SEPA's response to ESS' enquiries, a meeting was held between ESS and SEPA to relay concerns over SEPA's environmental event category framework and to explore existing uncertainties. During the meeting, discussions were had in relation to the subjectivity and complexity of assessing the term 'significant' within the descriptive conditions. It was agreed that these conditions exist to provide protection of the water environment and should remain on each WWTW licence.

6.2 In addition, it was agreed that the use of the terms 'significance', 'substantial' and 'excessive' within the environmental event category framework were unclear, unhelpful and liable to cause confusion to those tasked with implementing the framework. SEPA advised that the framework was being revisited, that a new performance assessment scheme was being developed and suggested that there may be scope to develop descriptive conditions guidance as part of one or both of the pieces of work. On this point it was noted that this work was still in its early stages, and discussions would be required with colleagues undertaking this work before committing to this action. SEPA agreed to provide ESS with a plan of its proposed next steps in respect of the concerns highlighted.

6.3 Following further discussions, SEPA advised that it had taken the view that it would be more efficient to develop specific guidance for the assessment of compliance with the descriptive conditions in WWTW licences. An indicative timescale of the end of November 2023 was proposed for completion of this guidance.

6.4 A follow-up meeting was held between ESS and SEPA on 30 October 2023, to provide ESS with an update on progress and a more definitive timescale for completion of the agreed actions. On 15 November 2023, SEPA provided ESS with a copy of its revised guidance on how it assesses breaches of the descriptive conditions (Annex 2).

7. Conclusion

7.1 Complying with licence conditions for WWTW is an essential part of protecting Scotland's water bodies from environmental harm. When reports of pollution are made, it is essential that SEPA's systems to investigate them are clear, effective and understood by the public, by operators and by its staff.

7.2 In ESS' view, the revised guidance provides clarity to staff and the public on:

- the circumstances in which a descriptive condition is likely to be breached
- what the associated environmental impact of a descriptive condition breach is likely to be, including reference to environmental events categorisation
- what SEPA's enforcement response may be in these different circumstances

7.3 For these reasons, ESS considers that SEPA has taken reasonable steps to address the concerns raised in respect of how it implements its duties and, accordingly, considers that informal resolution has been achieved.

7.4 ESS would like to thank the community group and NGO for raising their concerns, and SEPA for the assistance it provided in resolving this matter.

Annex 1 - SEPA Environmental Event Category Framework

	Category 1 – major		Category 2 – significant		Category 3 - minor	
Media	Water	Air, land	Water	Air, land	Water	Air, land
Length of	Environmental		Environmental		Localised and	
watercourse/	damage to the		damage to the		limited	
area impacted	ecosystem over a		ecosystem over a		environmental	
	length >1km or an		length <1km or an		damage to the	
	area >1km²		area <1km²		ecosystem	
Environmental	Fish kill >100	Widespread	Fish kill of 10-100	Long-term but	Fish kill <10	Short-term and
impact	and/or	and long-term	and/or	localised harm to	and/or	localised harm
	Contamination is	harm to the	Contamination is	the environment or	Contamination	to the
	more than 10	environment	more than two times	Widespread but	exceeds the	environment
	times the	Substantial	the EQS	short-term harm to	EQS	No harm to
	Environmental	harm to human		the environment		human health
	Quality Standard	health		Minor or no harm to		
	(EQS)			human health		

(Continued)	Water	Air, land	Water	Air, land	Water	Air, land
Media						
Amenity impact	Extensive visible	Substantial	Significant visible	Substantial	Minor visible	Minor
	pollution or littering	impairment of	pollution or littering	impairment of	pollution or	impairment of
	of watercourse	amenity for a	of watercourse	amenity for a short	littering of	amenity for a
	and/or	prolonged	and/or Significant	period or lesser	watercourse	short period or
	Any loss or closure	period	reduction in amenity	impairment of	and/or	not at all
	of a designated		value (i.e. urgent	amenity for a	Reduction in	
	bathing/shellfish		notification of	prolonged period	amenity value	
	water or drinking		downstream		(i.e. routine	
	water sources		abstractors)		(non-urgent)	
					notification of	
					downstream	
					abstractors)	
Economic	Extensive damage	Extensive	Significant damage	Significant damage	Agriculture or	Minor or no
impact	to and/or closure	damage to	to agriculture Or	to commercial	other	damage to
	of agriculture or	and/or closure	other commercial	activities	commercial	commercial
	other commercial	of commercial	activities		activities	activities
	activities	activities			affected	

Annex 2 – SEPA's revised guidance on Descriptive Conditions in CAR WWTW Licences

Descriptive Conditions in CAR WWTW Licences

Guidance on non-compliance and impact

14 November 2023 Issue: 1.0

Background

Some CAR licences for point source discharges issued by SEPA contain descriptive conditions which should be assessed for compliance during programmed inspections or as part of our response to environmental events. Descriptive conditions generally cover oil or grease, sewage solids, discolouration, foaming and sewage fungus in the receiving water environment. These descriptors will be appropriate to the discharge and will usually not also be covered by a numeric standard. However, if there is a numeric standard (for example, for oil), then this will take precedence over any descriptive condition for oil within the licence. However, there are circumstances where assessment of the descriptive condition allows SEPA to take action even if there is no breach of the numeric standard.

The following guidance focuses on rivers (which account for the majority of discharges), but if you have any questions about how this guidance relates to other types of water body (for example, lochs or coastal waters) please seek further advice from technical staff within SEPA.

It is important to be clear that, although the word 'significant' is a feature of descriptive licence conditions, non-compliance with the descriptive conditions in CAR licences will not always equate to significant environmental harm. Nevertheless, it is still important for SEPA to be able to act on descriptive condition non-compliance as this may allow an issue to be picked up early and prevent more serious impact.

Our environmental event categorisation is a framework which summarises the scale/seriousness of impact. For those circumstances that are likely to be consistent with

a category 3 scale of environmental impact a proportionate response will typically be to record the non-compliance against the relevant descriptive condition and communicate this to the operator. In addition, appropriate enforcement action will be taken in line with SEPA's Enforcement Policy and Enforcement Guidance.

For example, it may be appropriate to require that remedial action is undertaken; this may include removal of the offending material from the watercourse and/or addressing the root cause of the issue in order to prevent a recurrence which could cause greater environmental impacts, such as a category 1 or 2 scale environmental event or persistent localised category 3 environmental impact.

In circumstances that are consistent with category 1 or 2 scale of impact, SEPA will record the non-compliance against the relevant descriptive condition and communicate this to the operator. In addition, appropriate enforcement action will be taken in line with SEPA's <u>Enforcement Policy</u> and <u>Enforcement Guidance</u>. This Enforcement Guidance requires consideration of enforcement outcomes and environmental factors, including intent, foreseeability, impact, financial implications, deterrent effect and previous history in deciding what type of enforcement action is most appropriate in any situation.

It should be noted that licences for some low-risk point source discharges may only have descriptive conditions, and these are not normally routinely inspected.

Officers should be aware of discharge mixing zones when assessing the significance of any impact, including the results of laboratory analyses of river water samples.

Working this out precisely can be complicated, but as a rule of thumb for rivers, the mixing zone may extend downstream for a distance of between 20 and 100 river widths. In shallow, wide rivers, full width mixing may not be achieved for several kilometres downstream. At the same time, however, adequate protection must be given to flora and fauna in that stretch.

As each discharge is unique in terms of the sensitivities of the receiving watercourse, the definitions below are to be used as guidance only. The inspecting officer must use their professional judgement and discretion when assessing the level of significance, both in terms of visual scale and environmental impact. If in doubt as to the level of significance, please seek advice from an experienced colleague.

Further guidance on the major descriptive conditions (along with examples) is given below and in Annex 1.

1. Descriptive Conditions – circumstances likely to represent a noncompliance

1.1. A significant visible impact on the receiving waters due to the presence of oil and/or grease.

A continuous oily sheen visible in the discharge and/or a near continuous sheen visible in the watercourse downstream are likely to represent a breach of the descriptive licence condition. This indicates that oil levels in the discharge are likely to be greater than 5 mg/l which is the standard numeric condition used to control oil levels in a discharge.

Visible evidence of oil being caught on stones and vegetation downstream could also be considered significant as this may potentially be having an impact on the flora and fauna within the receiving waters.

Note that rules governing how oil should be stored on most authorised sites you visit are covered in GBR26 and GBR28 of CAR (see SEPA's CAR Practical guide for more information).

1.2. The significant deposition of sewage solids on the banks or bed of the receiving waters

Sewage solids include identifiable faecal matter, and sanitary products like tampons and wet wipes etc. Circumstances which are likely to represent a breach of the descriptive licence condition include:

- sanitary products entrained immediately around the WWTW discharge outfall causing a restriction to flow (e.g. solids captured on an outfall grill covering more than a quarter of the grill)
- sanitary products entrained or trapped on bank, bed or vegetation downstream of the outfall in a quantity that exceeds an average of 1 item per metre within 5 river widths or 20 metres downstream of the outfall (whichever is smaller)

And/or:

• any faecal matter that is clearly visible at the outfall or immediately downstream of the outfall in the bed or banks of the river

1.3. Significant discolouration of the receiving waters

For organic discharges such as those from waste water treatment works, assessment of the numeric suspended solids limit condition on the discharge should normally take precedence over the descriptive condition. However, there are circumstances where assessment of the descriptive condition allows SEPA to take action even if there is no breach of the suspended solids limit condition on the discharge.

An example would be where the location of the outfall prevents proper mixing of the discharge with the receiving waters. In this case, circumstances which are likely to represent a breach of the descriptive licence condition would be discolouration visible over a distance downstream of the outfall that is greater than 10 metres or the width of the river (whichever is smaller).

For discharges that contain inorganic constituents such as silt, assessment of the numeric suspended solids limit condition on the discharge should normally take precedence over the descriptive condition. If there is no suspended solids discharge limit condition within the licence or the discharge ceases before it is possible to take a sample, or the material causing the discolouration is soluble in water (i.e. will not contribute to level of suspended solids in the discharge), the descriptive condition can be assessed if appropriate. Circumstances which are likely to represent a breach of the descriptive licence condition for a discharge containing inorganic constituents would be when the discolouration is visible over a distance downstream of the discharge point that is greater than 100 metres or 2 river widths (whichever is the lesser).

1.4. Significant increased foaming in the receiving waters

This condition requires a comparison of the waterbody upstream and downstream of the discharge. Circumstances which are likely to represent a breach of the descriptive licence condition include a clear increase in the quantity of foam seen downstream, for example, over a distance of more than 20 metres or the width of the river (whichever is greater).

The ecological impact of foam can be difficult to assess as it depends on the nature of the substance producing the foam. Foaming can also occur naturally, usually in peaty water, although if this is the case, there should not be significant increases in foam downstream of the discharge outfall compared to levels visible upstream of the outfall.

1.5. Significant growth of sewage fungus in the receiving waters

The significance of the sewage fungus will be related to flow conditions and the length of watercourse affected. In most cases, circumstances which are likely to represent a breach of the descriptive licence condition are where sewage fungus is present across all or most of the river channel and/or:

- in rivers that are less than 2 metres wide, the sewage fungus is visible for more than 5 river widths downstream of the outfall
- in rivers that are greater than 2 metres in width, the sewage fungus is visible for more than 10 metres downstream of the outfall

Sewage fungus identified through ecological surveys over a distance of 20 river widths or 100 metres downstream of the outfall (whichever is smaller) is also likely to indicate a breach of the descriptive licence condition, even if the sewage fungus is only present under stones and therefore not visible from the banks. However, in this case, other potential sources of organic pollutant will need to be eliminated to ensure the impact is being caused by the discharge in question.

Note: sewage fungus is complex. The fungus attaches itself as whitish or greyish tufts to stones in the river bed, and often only appears in riffles and not the pools in between. The term really includes a number of organisms of which 2 common ones are the filamentous bacterium, Sphaerotilus natans and the fungus Leptomitus lactes.

Conditions which favour the growth of sewage fungus are the presence of organic matter (nitrogenous organic matter, or carbohydrates in the presence of ammonium salts and nitrates), some dissolved oxygen (growth will not occur in the complete absence of dissolved oxygen), pH of between 7 & 8 and a fairly high temperature).

Be aware of seasonal differences. Fungus may be evident during winter as a result of slower biological processes. When sewage fungus dies, it undergoes decomposition which can result in the formation of hydrogen sulphide.

Annex 1 - Descriptive conditions: factors to consider in assessing scale of impact

1.1 Significant visible impact on the receiving waters due to the presence of oil and/or grease.

Factors to consider when assessing the significance of impact from oil and/or grease on receiving waters:

- is the source a hazardous or toxic substance?
- the scale, duration and frequency of the visible impact
- the sensitivity of the receiving waters is it a SSSI or SAC or does it have other designations? If so, are the qualifying interests likely to be impacted by the oil/grease?
- the available dilution provided by the receiving waters
- evidence of ecological impacts such as oiling of birds, dead fish or invertebrates
- impacts on amenity or commercial interests

Example of non-compliance that is likely to have an environmental impact typical of a category 3 event as described in SEPA's environmental events guidance:

 a one-off accidental spill of oil or fuel causing a short-lived oily sheen on the receiving water visible for 100 metres downstream of the outfall, visible oil trapped in vegetation for 10 m downstream of the outfall, public complaints of odour for one day but no indication of other impacts on downstream water users

Examples of non-compliances that are likely to have an environmental impact typical of a category 1 or 2 event as described in SEPA's environmental events guidance:

- a leaking fuel tank that causes a sustained oily sheen on the receiving water over a distance of 500 metres for more than 2 days. As a consequence, the local rowing club who use the river has to cancel a rowing event due to potential impacts on their equipment as well as health/wellbeing concerns
- the discharge of used engine oil that is deposited on the bed of the waterbody and causes a toxic adverse impact on the invertebrate assemblages over a distance of 200 metres downstream of the outfall

1.2 Significant deposition of sewage solids on the banks or bed of the receiving waters

Factors to consider when assessing the significance of impact of sewage solids on receiving waters

- nature of the sewage solids impact sanitary products and wipes (mainly aesthetic) or faecal matter (aesthetic but also more potential for ecological impacts)
- length of Impact
- quantity of sewage rags the total number observed over the full length of impact and concentration around specific areas (such as bends in the river and vegetation)
- distribution of sewage solids typically sanitary products within the river

Sewage solids observed higher than the level of the river in trees may be indicative of extreme storm events that result in screens being bypassed/overtopped, lower on the banks and in the river may be suggestive of a failing screen.

• apparent age of rags can indicate if the impact results from a one-off recent event, or a longer-term chronic issue

 sewage solids caught in vegetation on the banks of a 5-metre-wide river averaging 2 items per metre measured over a distance of 20 metres downstream of the outfall

Example of non-compliance that is likely to have an environmental impact typical of a category 1 or 2 event as described in SEPA's environmental events guidance:

 sewage solids visible for a distance of 500 metres downstream of the outfall, caught at all levels on the river banks. The majority of sewage solids look fresh, numbers hard to estimate but likely higher than 500 in total, caught in trees and vegetation

1.3 Significant discolouration of the receiving waters

Factors to consider when assessing the significance of a discolouration impact on the receiving waters:

- is the source hazardous or toxic?
- is the source organic (possibly more polluting potential) or inert (possibly less polluting potential) or soluble inwater?
- the scale, duration and frequency of the visible discolouration impact
- the available dilution provided by the receiving waters
- the sensitivity of the receiving waters is it a SSSI or SAC or other designation, or are there pearl mussels present? Are the qualifying interests likely to be impacted by the discolouration?
- evidence of ecological impacts such as dead fish or invertebrates, smothered fish spawning redds
- impacts on amenity or commercial interests

 the discharge from a WWTW is compliant with the numerical suspended solids discharge limit but damage to the outfall pipe is causing it to pool in an area of slack water within the river and cause discolouration over a distance of 10 metres downstream

Example of non-compliance that is likely to have an environmental impact typical of a category 1 or 2 event as described in SEPA's environmental events guidance:

 a discharge from a WWTW is contaminated by a significant spill of white emulsion paint that causes discolouration in the receiving waters (a river) over a distance of 200 metres before it enters a small loch. The loch has a commercial fly-fishing business that is forced to close for 3 days due to the presence of the discolouration in the water

1.4 Significant increased foaming in the receiving waters

Factors to consider when assessing the significance of foaming in the receiving waters:

- is the source hazardous or toxic?
- the scale, duration and frequency of the foaming incidents
- the sensitivity of the receiving waters is it a SSSI or SAC or does it have another designation? If so are the qualifying interests likely to be impacted by the foam?
- evidence of ecological impacts such as dead fish, amphibians or invertebrates
- impacts on amenity or commercial interests

• a shallow foamy layer is covering the entire width of a 2-metre-wide river and visible for up to a distance of 100 metres downstream of the discharge outfall. No visual impacts on the river ecology are detected

Examples of non-compliances that are likely to have an environmental impact typical of a category 1 or 2 event as described in SEPA's environmental events guidance:

 'icebergs' of foam across all or most of the width of the river for at least 500 metres downstream of the discharge point and an identified ecological impact on the river ecology

1.5 Significant growth of sewage fungus in the receiving waters

Factors to consider when assessing the significance of impact from sewage fungus on the receiving waters:

- nature of the sewage fungus sporadic clumps, continuous coverage, is it smothering the bed?
- length of Impact length of river visually affected, nature of sewage fungus along that length
- nature of the receiving waters size, flow, designations, amenity, fisheries, downstream water users
- time of year spawning, are redds likely to be present, warm or cold weather
- is there an ecological impact on invertebrates? If so, is there a downgrade, over what length of river?

 clumps of sewage fungus visible on river-bed for a distance of 20 metres downstream of an WWTW outfall, no visible impact on river ecology

Examples of non-compliances that are likely to have an environmental impact typical of a category 1 or 2 event as described in SEPA's environmental events guidance:

- thick blanket of sewage fungus present on bed across the entire width of a 5-metre-wide river, extending 100 metres downstream of the discharge outfall. Ecological surveys show clear adverse impact on invertebrate assemblages along the impacted stretch of river
- sewage fungus visible under stones during ecological assessments of a river-bed for 500 metres downstream of the discharge outfall. Ecology assessments demonstrate a WFD classification downgrade in river ecology over the 500-metre stretch of river