

Incidents and their classification: the Common Incident Classification Scheme (CICS)

Ref: 04_01

Issued: 23/9/2016

What is this about?

This document describes what an incident is and the two-tier system we use to classify incidents; the Common Incident Classification Scheme (CICS).

The first tier measures our physical response in dealing with the incident. The second tier describes the impact the incident has on the environment and is used to categorise the potential and actual impact.



Document details

Who does it apply to?

All staff who classify incidents, in order to determine our response ('Competent officers'), and all staff who record the actual environmental impact of the incident, including:

- Environment Management duty officers;
- Environment Officers, EPR and regulatory officers;
- RSR-Duty Tactical Managers;
- Fisheries officers;
- Drought co-ordinators;
- Waterways Operations team leaders;
- Flood Incident Duty Officers;
- Flood Warning Duty Officers;
- Operations Delivery Field team leaders and Specialist team members;
- Flood Incident Management teams.



Related documents



Feedback

Important!: The [Introduction](#), [CICS Tier 1](#) and [CICS Tier 2](#) sections are relevant to **all** functions. **After you are familiar with this section, refer to your relevant functional section:**

- [Environment Management incidents](#)
- [Fisheries incidents](#)
- [Water Resources incidents](#)
- [Waterways incidents](#)
- [Flood and Coastal Risk Management incidents](#).

You can share this document with external organisations, such as water companies, provided you also state that it is only correct at the time of printing.

Contact for queries

NIM-Enquiries@environment-agency.gov.uk

Contents

Incidents and their classification: the Common Incident Classification Scheme (CICS) 1	
Introduction	3
Definition of an incident	3
Incident record	8
Categorisation of incidents	10
CICS Tier 1	11
Impact on resources	11
CICS Tier 2	14
Impact on the environment	14
Impacts on ecology	15
Impact to nature conservation sites and species	17
Impact on physical habitat	19
Impact on fish stocks	20
Environment Management (air, land and water) incidents	23
Impact on air	26
Guidance when assessing impact from noise	30
Guidance when assessing impact from odour	32
Impact on land	34
Impact on water	37
Impact on water quality	38
Impact on potable abstractions	41
Impact on ecology (water)	42
Impact on human health	43
Impact on amenity value	45
Impact on agriculture/commerce	47
Fisheries incidents	48
Water Resources incidents	55
Waterways incidents	62
Flood and Coastal Risk Management incidents	67
Consent infringements and enforcement	68
Flooding incidents	68
Environmental impact of FCRM incidents	71
Related documents	75

Introduction

Definition of an incident

Definition

For Environment Agency purposes, an incident is:

- a specific event or occurrence
 - brought to our attention
 - within our areas of responsibility
 - and which may have an environmental and/or operational impact.
-

Definition - explanatory notes

An incident is a specific event or occurrence.

An incident can either happen in a single location or in multiple locations at the same time or sequentially (such as flooding).

Events are brought to our attention through reports from members of the public, emergency services, local authorities, other regulators, industry, Environment Agency staff and other parties.

Incidents within our area of responsibility, that have a potential or actual environmental impact, include reports of:

- environmental harm/pollution of surface waters or groundwater;
- environmental harm to land, air and water from a site, substance or process we regulate;
- impacts on human health or nuisance to the local community from a site, substance or process we regulate;
- major air pollution incidents where we co-ordinate the monitoring and modelling;
- fish kills and illegal fishing;
- damage to nature conservation sites and species from activities we regulate;
- illegal abstraction and low river flows;
- speeding vessels and closure of a navigation fairway;
- flooding or potential causes of flooding;
- environmental harm from land drainage works.

Environmental harm includes damage to nature conservation sites and species, physical habitats, and fish and the fisheries they support.

The incident does not actually need to result in an environmental impact, as our actions may prevent damage occurring. The incident may have been caused by our [own workforce](#), or by contractors operating on our behalf.

Alarms from our telemetry/ automated equipment

Record an event leading to the generation of an alarm, from Environment Agency telemetry or other automatic equipment, as an incident if we need to deploy non-routine resources to investigate or respond.

This includes automated recordings of high flows and low dissolved oxygen, and operational telemetry alarms indicating flooding or an imminent potential for flooding.

Analytical failures

Record a retrospective analytical failure as an incident where the investigation reveals an ongoing polluting problem, or there is evidence of an environmental impact. This includes both results from our sampling and self-reporting from industry.

For example, only record bathing water sample exceedances as incidents if the subsequent investigation reveals evidence of an event at an identified source, such as a combined sewer overflow (CSO).

Failing a mandatory directive doesn't automatically mean a Category 1 or 2 incident, but is likely to. We must also consider the actual impact on water quality, the status of the water body, and other impact criteria.

Operator ('self') recorded/reported events

A permit, consent, or local agreement, may require an operator to notify us of alarms and emissions. Operators may also be required to keep records of any emissions and actions taken to comply with the permit, and submit them to us or make them available for inspection.

Record these as incidents where the investigation reveals an ongoing polluting problem, or there is evidence of an environmental impact.

Works undertaken to address minor nuisance issues which have not resulted in environmental impact will not normally be incidents. For example, a record of litter outside a site which has been collected or mud on the road which has been cleaned up.

The majority of notifications of emission limit values being exceeded from installations do not have any environmental impact as the permit is based on best available techniques (BAT) or appropriate measures/cost benefit. Historically, self-notification of breaches of emission limit values by operators results in few incidents.

Refer to [Operational instruction 16_02](#) for how to record operator-reported failures and technical breaches related to plant, equipment and UV failure.

Record breaches of permit conditions under the Compliance Classification Scheme.

Breaches of legislation, permit limits, and illegal activity

Record a permit breach and illegal activity as an incident if it is a specific event that is having, or about to have an environmental impact if some form of immediate preventative action is not taken. For example:

- An unbunded oil tank on a permitted site would not be an incident unless it was leaking and causing or likely to cause pollution.
- A breach of a flood defence consent would not be an incident unless an environmental impact was actually taking place, or action was required to prevent an imminent impact (see [consent infringements](#)).

This applies however observed, whether by staff during routine visits, or reports from the public or operator.

Record breaches of permit conditions under the Compliance Classification Scheme.

Inspections

Routine visits and inspections include those associated with follow-up visits to incidents, catchment surveys, pollution prevention campaigns, requests for advice, structural inspections, vessel inspections, routine asset inspections, maintenance work and alike.

For non-flood related work, record an event observed during a routine visit or inspection as an incident if it is a specific event that is having, or about to have an environmental impact if some form of immediate preventative action is not taken.

Do not record soil damage observed during a farm cross compliance visit as an incident unless it is having, or immediately about to have, an environmental impact which is within our area of business (such as actual or potential pollution of surface waters or groundwater).

For flood-related work, record an event observed during a routine visit or inspection as an incident if it is causing flooding, or non-routine maintenance is required to prevent imminent flooding (see FCRM incidents - [Observations during routine visits](#)).

Amenity issues

We often receive a large volume of calls regarding amenity issues at regulated sites. Record all complaints about permitted sites as incidents with each type of amenity issue (such as noise, odour, flies or dust) as a separate record.

However for ongoing incidents of the same type, record the first incident report each month on NIRS and set all subsequent reports as duplicates. Continue to record one monthly incident report for each type of issue, and set duplicates against this record, until the issue has been resolved. Record issues with fundamentally different causes as separate incidents

For example:

- For reports about different issues such as reports of flies and odour from a landfill site, record these separately
- For multiple reports of noise at the site, create a record each month and set all subsequent reports relating to noise as duplicates
- For complaints of odour with clearly unrelated and identified cause, such as a noxious gas release one day and two weeks later a problem with the effluent plant going anoxic, record these separately. Keep the complaints as one record until differently causes are distinguished.

You do not have to attend site to substantiate an amenity complaint. Substantiation can be carried out based upon likelihood. To do this look at key indicators such as wind speed and direction, proximity of local community and nature of incident report in conjunction with other activities taking place within the locality. Consider what else is going on in that locality which could give rise to dust, odour, noise or flies, if the operator has confirmed or self-reported an issue, the number and frequency of similar complaints, materials and activities on site, and if this a common problem.

Do not set unsubstantiated amenity reports as duplicates as we cannot know if they actually happened. Ensure all unsubstantiated reports are closed.

All incident reports must be logged on NIRS, either as an initial record at the start of each month, or as a duplicate so that we can build up a consistent picture regarding the extent, impact and duration of the issue.

Ongoing events

- Record flooding from severe weather, causing multiple events throughout the duration of the high water, as separate incidents by river catchment. Record by field team area where this involves several small catchments. Record by flood incident duty team operational boundary where river catchments are not relevant, for example coastal flooding (see FCRM incidents – Recording multiple location incidents).
 - All calls must be logged, preferably as a duplicate record on the National Incident Recording System (NIRS) for the same incident, to enable us to build up a picture of the extent.
-

Intermittent discharges

- Record ongoing complaints about intermittent discharges as separate incidents if each one relates to a discrete event.
 - Even if the source is exactly the same, each discrete event will usually constitute a separate incident **unless** the operator is taking agreed action to resolve a known problem. For example:
 - Intermittent discharges from a broken pumping station or sewer when it rains and where the water company has a timely program in place to address are considered as the same incident.
 - Record complaints about an ongoing event that we are already aware of (and where the operator is taking action) as separate incidents if the report suggests that the impact may have increased and an inspection is needed. **Note:** It may not be appropriate to record deterioration in a discharge from a surface water outfall as a separate event if an investigation is underway by the water company (refer to [Operational instruction 16_02](#)).
-

Bathing Waters Directive: short-term pollution events

We are making forecasts of 'short term pollution' for some bathing waters, in line with the revised bathing waters directive. These forecasts are NOT pollution incidents and must not be recorded on NIRS. However, it is possible that a pollution incident could occur and coincide with a forecast of STP. If this happens, the incident should be recorded in the normal manner. For more information on short term pollution forecasting contact Andrzej.Nowosielski@environment-agency.gov.uk or Ian.Dunhill@environment-agency.gov.uk in the tidal waters team.

Complaints regarding permitted sites, discharges or emissions

Where an event constitutes an incident (based on the conditions set out in the paragraphs above), we will presume any emission or discharge to have an environmental impact. It is responsibility of the operator to prove otherwise (see [Operator reported events](#)). Base your assessment on the actual environmental impact and not permit conditions.

Reports regarding our role as competent/responsible authority

Record all reports about a site or asset where we are the competent or responsible authority as an incident if it has the potential to, or is impacting on people, property or the environment.

Refer to [Definition of waterways incidents](#), and explanatory notes, for clarification regarding reports where we are the competent authority for navigation.

Refer to [Definition of a flooding incident](#), and explanatory notes, for clarification regarding reports involving actual or potential flooding.

Persistent complainant and hoax calls

For persistent calls, ICS or officers need to consider who is complaining before recording as an incident. In some cases informants may for a variety of reasons call the Environment Agency unnecessarily or the call may be a hoax.

Capture any information on the complainants (such as their name and address) and pass this to staff responsible for determining whether an incident has genuinely occurred before recording on NIRS.

Multiple calls

Record multiple calls about an ongoing event as duplicate reports under the same incident report on NIRS. Where the incident relates to an amenity complaint follow the guidance [above](#). Where the incident results in a significant number of calls, such as flooding events, record these on NIRS as duplicates until no longer feasible. At this point, you must keep a log and reflect this in the incident record. ICS will assist in this at peak times.

Incidents caused by the Environment Agency

Report any environmental incidents caused by our own workforce, or by contractors operating on our behalf, through the incident hotline. Assess according to CICS, complete the record on NIRS, and review according to [491_09 procedures for internal environmental incidents](#).

This does not include reports of other matters of interest to the Environment Agency such death of a member of staff, or complaints about staff.

Incident record

National Incident Recording System (NIRS)

All potential and actual incidents must be recorded on the National Incident Recording System (NIRS) by ICS. Officers must use their judgement to decide the function responsible for completing the incident record (for example, when flooding carries contaminants). Record the incident under the function with the greatest actual environmental impact (that is, the highest CICS categorisation). Refer to [Methodology – type of incident](#).

Recording of events not within our area of responsibility or not incidents

ICS do not record an event on NIRS where it is immediately apparent that it is about a matter that is not our responsibility and will refer the reporter to the appropriate party. ICS refer reports which are not potential incidents, but may be our business, to NCCC.

Record events that are referred and immediately identified, by the Competent Officer, as not being our responsibility and a potential incident as 'not within our remit' on NIRS.

Record the initial assessment on NIRS whenever you assess an event as a potential incident. Use the 'on-hold' function to set the event as 'not of interest' if it is subsequently identified as not an incident within our remit.

Refer events which upon investigation (but not necessarily attendance) are discovered to be outside our remit to the appropriate authority as soon as possible.

Surface water flooding is of interest to the Environment Agency but will not be recorded on NIRS at present in England (refer to [Flooding incidents not within our remit](#)).

Substantiated incidents with no impact

Record the incident as substantiated if there is evidence that what was reported actually took place. It does not have to be attended or to have caused an environmental impact.

Record substantiated incidents that result in no environmental impact, or where the impact cannot be confirmed, as a Category 4. For example, an overturned tanker where the spillage is contained before entering surface waters, an illegal fisherman who is apprehended before any fish have been taken, or an obstruction that had no imminent potential but could cause flooding in the longer term.

Use your judgement and investigate further if you suspect that there really was an impact.

Substantiated incidents but not attended

You must be confident that what was reported occurred even if you do not attend. Incidents can be set as substantiated based on the information provided by the reporter, and the impact classified, even if they are not attended. Use your judgement and take into consideration the reliability of the reporter (ref to [hoax calls](#)) and the nature of what is being reported. For example, a nuisance complaint or a description of a pollutant and its effect may be open to interpretation and not reliable.

Multiple reports with the same description would indicate reliability, as would reports by local authorities and other credible responders.

- For ongoing amenity problems around a permitted site, you do not have to attend site to substantiate an incident. Substantiation can be based on likelihood. To do this we look at key indicators:
- Weather, wind speed and direction;
- nature of incident report in conjunction with other activities taking place within the locality (e.g. what else is going on in that locality which could give rise to dust, odour, noise or flies?);
- type of activity;
- operator has confirmed or self-reported an issue;
- proximity of local community;
- number and frequency of similar complaints;
- materials and activities on site;
- is this a common problem.

For example, if we receive 10 reports of odour complaints from a site within 24 hours, wind speed and direction indicate that the local community is likely to be affected, the site receives odorous waste and the operator has self-reported problems with their ventilation system – then it would be reasonable to substantiate the incident without needing to attend site.

Un-substantiated incidents

Record the incident as unsubstantiated on NIRS where there is no evidence of what was reported based on inspection, assessment or indicator information. Record reports which are not incidents (such as a security issues or faulty telemetry alarms) as ‘not within our remit’ or ‘not of interest’ on NIRS.

Unsubstantiated events must not be confused with actual events that are not our business. You must action these appropriately, such as refer them to the appropriate authority as soon as possible.

Categorisation of incidents

Overview of CICS

The Common Incident Classification Scheme (CICS) is a two-tier system. The first tier measures our physical response and impact on Environment Agency business in dealing with the incident. The second tier describes the actual impact the incident has on the environment (people, property and the natural environment).

The first tier is common to all functions, whilst the second tier is split into:

- [Environment Management](#)
 - [Fisheries](#)
 - [Water Resources](#)
 - [Waterways](#)
 - [Flood and Coastal Risk Management](#) incidents.
-

Assigning an impact category

Assess and record all incidents on NIRS according to it's:

- potential impact on the environment (use to determine our response);
- **actual** impact on the environment;
- impact on our resources.

For each tier, identify which of the statements contained in each level definition best describes the incident details. Assign the level where the highest selected criteria are listed.

The Competent officer must categorise the potential environmental impact. The potential impact category assigned informs the response time required (refer to [incident management service levels](#)). The Competent Officer must also consider the potential impact on our resources to determine if there is a need to declare an area major incident (although this does not need to be recorded on NIRS).

The investigating officer must categorise the actual environmental impact and actual impact on our resources. The final categorisation of the incident may be subject to alteration as further information becomes available.

Ensuring consistency

Regions must ensure that effective audit procedures are in place to ensure incidents are categorised consistently.

CICS Tier 1

Impact on resources

Methodology Tier 1 classifies the deployment of resources. Identify which of the statements contained in each level definition best describes the resources deployed. Only assess Tier 1 at an area level.

Assign the level where the highest selected criterion is listed. For example, an incident resulting in a limited deployment to on site (Level C) but a major deployment to staff the incident room (Level A) will be recorded as a Level A incident.

Area major incident

Declare an area major incident if a Level A response is expected to be required. Assess the potential for a Level A response when you are planning how to respond and start to deploy resources.

See [Operational instruction 123_02](#) on the management of major incidents for further details on declaring an area, regional or national major incident.

Category	Definition	Impact criteria and guidance (one or more definition or criteria are met)
Level A	Major deployment of resources	<p>A major deployment of resources which results in a severe disruption to normal business and requires an immediate reorganization of priorities and reassignment of staff. This will involve one or more of the following:</p> <p>Major deployment to staff the incident room</p> <ul style="list-style-type: none"> ▪ Drafting in additional staff such as call handlers and staff to support the incident room (whether based in the incident room or elsewhere). ▪ Opening of an area incident room for more than 2 days consecutively and requiring rosters to be put in place. <p>Major deployment on site</p> <ul style="list-style-type: none"> ▪ Greater than four officer's days (simultaneously or in consecutive shifts) in a 24 hour period. ▪ Maximum use of available resource, within the bounds of the working time directive. ▪ The special mobilization of personnel, plant or other resources at a regional or national level. For example: <ul style="list-style-type: none"> ▪ extensive use of specialist clean up contractors; ▪ deployment of the Air Quality Cell in response to a major air pollution incident; ▪ mobilisation of staff from other regions (inter-regional support) or military aid; ▪ the use of contingency dissemination of flood warnings if normal systems fail. <p>Major deployment to support multi-agency response</p> <ul style="list-style-type: none"> ▪ Deployment of liaison officers to multi-agency co-ordination centres (such as Silver and Gold Command) for more than a day.

		<p>Major deployment to manage a high level of media (including social media), public or political interest</p> <ul style="list-style-type: none"> ▪ A need to produce a nationally and/or regionally co-ordinated media release in response to national (or extensive local) media interest. ▪ The drafting in of additional staff to handle numerous calls from the public and professional partners. As a guide, for single location incidents, more than 20 calls in any one day. For multiple-location incidents (such as flooding), 15 or more calls per hour or more. Consider the nature of the incident and the actual callers (such as, persistent callers). ▪ Strategic Managers required to manage a high level of political interest which gives rise to concern by the government or ministers. <p>Only record an incident involving our participation in a UK national response plan (such as the National Response Plan for radiation incidents) or major civil emergency (possibly in support of the emergency services) as Level A if one or more of the above criteria are met. Terrorist events involving radioactive materials are likely to require a Level A response due to the need to manage a high level of media, public and political interest.</p>
Level B	Significant deployment of resources	<p>A significant deployment of resources causing a significant disruption to normal business requiring a reorganization of priorities at a local and possibly regional level. This is will involve one or more of the following:</p> <p>Significant deployment to staff the incident room</p> <ul style="list-style-type: none"> ▪ Opening of an area incident room for less than 2 days consecutively and not requiring rostering of staff to support extended opening. <p>Significant deployment on site</p> <ul style="list-style-type: none"> ▪ Between 1 and 4 officer's day (simultaneously or in consecutive shifts) in a 24-hour period. ▪ Field work cover provided during silent hours (00:00 to 06:00) but not worked. ▪ Special mobilization of personnel, plant or other resources at a local and regional level. For example, clean-up contractors and mobilisation of staff from other areas. <p>Significant deployment to support multi-agency response</p> <ul style="list-style-type: none"> ▪ Deployment of Liaison Officers to multi-agency co-ordination centres (such as Silver and Gold Command) for one day or less. <p>Significant deployment to manage intermediate level of media (including social media), public or political interest</p> <ul style="list-style-type: none"> ▪ A need to manage an intermediate level of media interest, such as a large amount of interest from local newspapers and possibly local television. ▪ Additional resources required to manage a moderate number of calls from the public. As a guide, for single location incidents, between 5-19 calls in any one day. For multiple-location incidents, between 10-15 calls per hour. ▪ Strategic Managers required to manage an intermediate level of political interest including concern expressed by a

		local Councillor.
Level C	Limited deployment of resources	<p>The incident is not significantly disruptive to normal business and does not require the immediate reorganisation of priorities. This will involve one or more of the following:</p> <p>Limited deployment to manage the incident</p> <ul style="list-style-type: none"> ▪ Incident room not opened (Note: The incident room is not considered open when an Area Base Controller is not managing it, for example when the same room is being used for issuing warnings and monitoring weather and river levels only). ▪ Less than one officer's day in any 24-hour period, but more than 20 minutes spent dealing with the incident. ▪ For flooding incidents, rostered staff are active for the non-routine monitoring and forecasting of river/sea levels and issuing flood alerts. Most activity is between 06:00 and 23:59, although some activity maybe necessary during silent hours depending on the expected time of flood. <p>Limited deployment on site</p> <ul style="list-style-type: none"> ▪ Site attendance (including attendance at Bronze Control by Operational Liaison Officer) needed but for less than one officer's day in a 24-hour period. ▪ For flooding incidents, rostered staff are active for the non-routine monitoring, operating and inspecting a small number of assets. Most activity is between 06:00 and 23:59, although some activity maybe necessary during silent hours depending on the expected time of flood. <p>Limited deployment to support multi-agency response</p> <ul style="list-style-type: none"> ▪ No need to deploy liaison officers to multi-agency tactical and strategic co-ordination centres. <p>Limited deployment to manage low level of media (including social media), or public interest</p> <ul style="list-style-type: none"> ▪ Limited resources required to manage a low level of media interest, such as a small amount of interest from local newspapers. ▪ Limited resources required to manage a low level of public interest. This would involve a small number of calls. For single location incidents, no more than four calls in any one day, for multiple-location less than 5-10 calls per hour.
Level D	No deployment of resources	<ul style="list-style-type: none"> ▪ No attendance or deployment of resources beyond recording and assessing the incident (may involve a few phone-calls) and completing the incident record. ▪ No media or public interest to manage.

CICS Tier 2

Impact on the environment

Methodology – type of incident

Tier 2, the environmental impact categorisation, is split into five functional schemes:

- [Environment Management \(air, land, water\) incidents](#) – for incidents involving water quality, pollution, or physical habitat damage (outside of FCRM remit). Environment Management usually leads.
- [Fisheries incidents](#) – for incidents involving illegal fishing and illegal fish movements, fish disease, fishery management activities and fish kills from non-pollution causes, including low flows and low dissolved oxygen. Fisheries usually leads.
- [Water Resources incidents](#) – for incidents involving the quantity of a water resource. Environment Management usually leads.
- [Waterways incidents](#) – for incidents on a waterway where we are the competent authority for navigation.
- [Flood and Coastal Risk Management incidents](#) – for incidents which involve actual or potential flooding and land drainage works on main rivers or where regional bylaws apply.

There is no specific scheme for incidents of interest to biodiversity teams but impacts to ecology must be considered for all incidents by the function leading the response. Use the definitions and criteria provided when categorising the impact to [ecology](#). Fisheries and Biodiversity (F&B) teams must be consulted.

Methodology – impact categories

For each functional scheme, the environmental impact categorisation, is split into four categories:

- Category 1 – major, serious, persistent and/or extensive impact or effect on the environment, people and/or property
- Category 2 – significant impact or effect on the environment, people and/or property
- Category 3 – minor or minimal impact or effect on the environment, people and/or property
- Category 4 – substantiated incident with no impact.

Assign the impact category corresponding to the highest criteria selected. The potential impact category assigned informs the response time required (refer to [incident management service levels](#)).

Environmental Damage Regulations

You must consider any implications under the Environmental Damage (Prevention and Remediation) Regulations 2009. Refer to [59_09 Environmental Damage Regulations](#).

Under the regulations, we are the enforcing authority for any environmental damage caused by an activity we permit under the Environmental Permitting Regulations (EPR). For activities we do not regulate under EPR, we will only be the enforcing authority in respect of damage to water, damage to protected species or natural habitats in inland waters, and damage to protected species or natural habitats in the sea if caused by an activity we authorised.

We have duties under these regulations to assess damage and enforce prevention and remediation requirements for:

- Damage to water: damage that would lead to a deterioration in status of a Water Framework Directive water body;
- Damage to protected species and natural habitats: damage that has a significant adverse effect on Habitat or Birds Directive species or habitats reaching or maintaining their favourable conservation status;
- Damage to a SSSI: damage that has an adverse effect on the integrity of a site of special scientific interest (SSSI);
- Land damage: contamination that causes a significant risk of adverse effects on human health.

Refer to [Impacts on nature conservation](#) for further information on protected species and habitats.

Impacts on ecology

Impact on ecology

Impact on ecology covers impacts to nature conservation for protected sites and species, physical habitat for hydromorphological harm and fish stocks. Advice must be sought from Fisheries and Biodiversity (F&B) teams, and where there is uncertainty from Conservation Ecology Technical Services, especially for Category 1 incidents.

Our conservation duties

Our conservation duties are contained in several different pieces of legislation. We are also required to follow statutory guidance and government codes of practice. [Operational instruction 196_07](#) summarises how we will fulfil our duties for 'nature conservation'.

Consult area Fisheries and Biodiversity (F&B) teams whenever any incident within our remit may have impacted on a nature conservation site or species, or Water Framework Directive objectives (see below for [definitions of sites and species](#)). F&B must consult Analysis and Reporting teams for input on WFD impacts. The overall damage may first appear limited, but subsequent investigations may reveal more damage. For example, that a pollutant has severely affected or destroyed a nature conservation site or killed protected species. Implications under the [Environmental Damage Regulations](#) must be considered.

All fish stocks contribute to biodiversity, whether they are exploited (salmon, trout, coarse fish, eel, smelt and river/sea lamprey) or not (shad and smaller species such as bullhead, loaches and brook lamprey).

Some have specific conservation status (e.g. shad, bullhead and lamprey).

Notifying external conservation bodies

For incidents occurring as a result of **our own activities** (including contractors carrying out work for us) that have had an impact on either statutory protected sites or statutory protected species, you must seek approval from your area manager (who should consult with the Director of Operations) prior to notifying external bodies.

- For statutory protected sites, notify the relevant conservation bodies.
- For statutory protected species, notify the police.

For incidents occurring as a result of a **third party activity that is not permitted by us**, you must notify the relevant external body:

- For statutory protected sites, notify the relevant conservation bodies.
- For statutory protected species, notify the police.

For incidents occurring as a result of **third party activities permitted by us** that have had an impact on a statutory protected site or species, you must notify the relevant nature conservation bodies once you've informed the local F&B team.

Definitions of sites and species

Statutory protected sites

These include special areas of conservation (SAC), special protected areas (SPA), Ramsar sites (Wetlands of International Importance as defined under the Ramsar Convention), sites of special scientific interest (SSSI), national and local nature reserves, areas of outstanding natural beauty (AONBs), national parks and scheduled ancient monuments. Relevant conservation bodies are Natural England, English Heritage, and the national park authorities. Seek advice if necessary.

Non-statutory designated sites

These include local wildlife sites, ancient woodland, and regionally important geological/geomorphological sites (RIGS). Relevant conservation bodies are the wildlife trusts, county ecologists and local RIGS groups. Seek advice if necessary.

Protected species

These include European and nationally protected species. Examples of European protected species include freshwater pearl mussel, native crayfish, otter, and great crested newt. Examples of nationally protected species include water voles, marsh fritillary, bullheads, shads and lampreys. Relevant authorities are the police and Natural England. F&B teams can advise on whom to contact. See [JNCC website for European Protected Species](#), for nationally protected plants see [Schedule 8](#) of the Wildlife and Countryside Act (WCA), for animals see [Schedule 5](#) of the WCA.

Biodiversity action plan (BAP) species and habitats

The Environment Agency is the lead partner for delivering conservation actions for some BAP species and habitats. Major or significant damage to these species or habitats must be considered.

Water Framework Directive (WFD)

WFD requires us to aim to meet good status (or potential where artificial or heavily modified) in all water bodies. WFD also requires us to prevent deterioration in water body status, including the deterioration of any individual water quality element.

Any incident in the water environment that could cause a deterioration or impact our ability to achieve good status or potential should be categorised using the guidance below.

Legal powers introduced by amendment of the Water Resources Act 1991 are available to help the Environment Agency deliver the environmental objectives of the WFD.

These powers allow us to issue [anti-pollution works notices](#) and undertake emergency and restoration works to address hydromorphological harm.

Categorising the impact on ecology

All staff must use the following definitions and criteria when classifying the impact to ecology for any type of incident. Ecological incidents have been categorised by impact to [nature conservation](#) for protected sites and species, [physical habitat](#) for hydromorphological damage and [fish stocks](#). Advice must be sought from F&B teams, and where there is uncertainty from Conservation Ecology Technical Services, especially for Category 1 incidents.

Impact to nature conservation sites and species

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major damage to nature conservation	<p>Major adverse effect on a statutorily protected site or species or Water Framework Directive (WFD) water body</p> <ul style="list-style-type: none"> ▪ Significant adverse effect on a SAC/SPA/Ramsar site reaching or maintaining its favourable conservation status (FCS). ▪ Damage to a European protected species or its habitat that has a significant adverse effect on it reaching or maintaining FCS. <p>Note: Assessment of impact on FCS of species must be made using the Natural England guidance document.</p> <ul style="list-style-type: none"> ▪ Damage that has an adverse effect on the integrity of a site of special scientific interest. ▪ Extensive damage to national protected species (on any stage of the lifecycle) or their habitat. ▪ Implications under the Environmental Damage Regulations. ▪ Deterioration in the ecological status or potential of a WFD water body. ▪ Prevention of a water body to reach its ecological status or potential objective.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 2	Significant damage to nature conservation	<p>Damage to a statutorily protected site or species or Water Framework Directive water (WFD) body</p> <ul style="list-style-type: none"> ▪ Damage (other than category 1) to the habitat of a SAC/SPA/Ramsar/SSSI*. ▪ Damage (other than category 1) to European and nationally protected species or their habitat, with negligible effect on favourable conservation status*. ▪ No implications under the Environmental Damage Regulations. ▪ Significant but localised or temporary deterioration in ecological status or potential of a WFD water body or delaying the water body reaching its ecological objectives. <p>* Note: Any damage to a statutorily protected site or species will have a minimum of a potential category 2 impact.</p> <p>Extensive and/or significant damage to BAP species or habitats and non-statutory protected species</p> <ul style="list-style-type: none"> ▪ Significant damage to BAP species (on any stage of the life cycle) or habitat, which affects the viability of the species in the local area. ▪ Extensive and/or significant damage to a non-statutorily protected site or BAP habitat that affects the nature conservation status of the site or habitat.
Category 3	Minor damage to nature conservation	<p>Very limited impact on nature conservation or Water Framework Directive (WFD) water body</p> <ul style="list-style-type: none"> ▪ Reversible small-scale, short-term damage to non-statutorily protected sites or BAP habitats or species. ▪ No effect on the status or objectives of a WFD water body.
Category 4	No impact	<ul style="list-style-type: none"> ▪ Substantiated incident with no impact to nature conservation.

Impact on physical habitat

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major effect on physical habitat	<ul style="list-style-type: none"> Incidents that cause extensive damage to the physical habitat of a water body that would fall under the Environmental Damage Regulations. Destruction or damage to a physical habitat that will cause deterioration in the ecological status or potential of a WFD water body. For example damage to habitat that would cause fish, plants or invertebrates to fail in their WFD classification. Destruction or damage to physical habitats that will prevent a water body from reaching its ecological status or potential objective. For example if a water body that is improving was dredged removing the habitat that was supporting this recovery.
	Major fish habitat damage	<ul style="list-style-type: none"> The destruction of a large or important area of fish habitat. This will include the destruction of areas known to be used for spawning. (NB. The relative importance of spawning areas for different species will vary between waters – check with your fisheries technical specialist.) Sustained damage to fish spawning, such as by actively digging or removing material used by spawning fish. The illegal construction of an obstruction to fish migration.
Category 2	Significant effect on physical habitat	<ul style="list-style-type: none"> Damage to physical habitat that causes significant but localised deterioration in ecological status or potential of a water body. For example in larger water bodies impacts may be up to a couple of hundred meters.
	Significant fish habitat damage	<ul style="list-style-type: none"> Significant but localised destruction of fish habitats. Interference with spawning fish by creating disturbance, such as by sustained paddling/moving through a spawning area. Incidents involving the illegal obstruction to fish migration, including illegal alteration to a fish pass.
Category 3	Minor effect on physical habitat	<ul style="list-style-type: none"> Minor impact on physical habitat with no effect on the status or objectives of a WFD water body.
	Minor fish habitat damage	<ul style="list-style-type: none"> Minor loss of fish habitat. Interference with spawning fish resulting in localised, limited damage, such as by paddling/moving through a spawning area.
Category 4	No impact	Substantiated incident with no impact to physical habitat.

Impact on fish stocks

Categorising the impact on fish stocks

All staff must use the following definitions and criteria when classifying the impact of any type of incident on fish stocks. You must consider all species whether they are exploited or not. Advice must be sought from F&B teams. Assess fish kills using the [Fish kill assessment instruction 78_01](#).

NB. You must also take any impacts on rod and/or net fishing activity (fishing amenity) into account – please see [Impact on Amenity Value](#)

The mortality of just a few adult migratory salmonids is extremely significant to the fishery concerned. The loss of 5 fish may well destroy the recruitment of juvenile fish in a river that is failing its conservation targets for salmon.

Some fish species have specific conservation status, for example, salmon, lamprey and bullhead. Others are specifically protected (Allis and Twaite shad). These designations are reflected in the impact criteria.

Note: The following must be considered when using the mortality figures given in the impact criteria guidance:

1. Salmonid populations vary between rivers. The loss of relatively few fish may be significant in some rivers and local judgement may elevate categorisation.
2. Brown trout mature at different sizes in different rivers. Use local information on size at maturity where available
3. Lampreys, smelt and shad can suffer natural post-spawning mortality, which can be confused for or mask an anthropogenic impact. Lampreys spawn on riffles in spring; smelt in lower reaches and estuaries between February and May; and shad in upper reaches in April/May.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major fish mortality (from any activity)	<p>The loss of:</p> <ul style="list-style-type: none"> ▪ Salmon (<i>Salmon salar</i>) or sea trout (<i>Salmo trutta</i>): <ul style="list-style-type: none"> ○ 10 or more adults (see note 1 above) or ○ 100 or more juveniles ▪ Brown trout (<i>Salmo trutta</i>): <ul style="list-style-type: none"> ○ Rivers: 50 or more adults (>20cm) or 100 or more juveniles (<20cm) (see note 1 and 2 above) ○ Stillwaters: over 50 percent of the estimated population ▪ Coarse fish: <ul style="list-style-type: none"> ○ Rivers: 100 or more adults (>20cm); or 1000 or more juveniles (<20cm) ○ Stillwaters and canals: over 100 adults or 50 percent of the estimated population ▪ Eel (<i>Anguilla anguilla</i>): <ul style="list-style-type: none"> ○ 20 or more yellow or silver eel ▪ River lamprey (<i>Lampetra fluviatilis</i>) or sea lamprey

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		<p>(<i>Petromyzon marinus</i>) (see note 3 above):</p> <ul style="list-style-type: none"> ○ 50 or more <ul style="list-style-type: none"> ▪ Smelt (<i>Osmerus eperlanus</i>) (see note 3 above): <ul style="list-style-type: none"> ○ 50 or more ▪ Allis shad (<i>Alosa alosa</i>) or Twaité shad (<i>Alosa fallax</i>), whitefish (<i>Coregonus albula</i> or <i>C. lavaretus</i>) and char (<i>Salvelinus alpinus</i>) (see note 3 above): <ul style="list-style-type: none"> ○ 10 or more ▪ For other freshwater fish (such as bullhead, minnow, and loaches), this would normally involve the death of more than 100 fish, but depend on the ecology of the water body, and will rely on the judgement of the Fisheries team.
Category 2	Significant fish mortality (from any activity)	<p>The loss of:</p> <ul style="list-style-type: none"> ▪ Salmon (<i>Salmon salar</i>) or sea trout (<i>Salmo trutta</i>): <ul style="list-style-type: none"> ○ fewer than 10 adults (see note 1 above) or ○ fewer than 100 juveniles ▪ Brown trout (<i>Salmo trutta</i>): <ul style="list-style-type: none"> ○ Rivers: between 10 and 50 (>20cm); or between 10 and 100 juveniles (<20cm) (see note 1 and 2) ○ Stillwaters: less than 50 percent of the estimated population ▪ Coarse fish (rivers): <ul style="list-style-type: none"> ○ Rivers: between 10 and 100 adults (>20cm); or between 10 and 1000 juveniles (<20cm) ○ Stillwaters and canals: less than 50 percent of the estimated population ▪ Eel (<i>Anguilla anguilla</i>): <ul style="list-style-type: none"> ○ Fewer than 20 yellow or silver eel ▪ River lamprey (<i>Lampetra fluviatilis</i>) or sea lamprey (<i>Petromyzon marinus</i>) (see note 3 above): <ul style="list-style-type: none"> ○ fewer than 50 adults ▪ Smelt (<i>Osmerus eperlanus</i>) (see note 3 above): <ul style="list-style-type: none"> ○ fewer than 50 ▪ Allis shad (<i>Alosa alosa</i>) or Twaité shad (<i>Alosa fallax</i>), whitefish (<i>Coregonus albula</i> or <i>C. Lavaretus</i>) and char (<i>Salvelinus alpinus</i>) (see note 3 above): <ul style="list-style-type: none"> ○ fewer than 10 ▪ For other freshwater fish (such as bullhead, minnow and loaches), this would normally involve the death of fewer than 100 fish, but this will depend on the ecology of the water body, and will rely on the judgement of the local Fisheries team.
Category 3	Minor fish mortality (from any activity)	<ul style="list-style-type: none"> ▪ Minor fish mortality involving the loss of small number of small (non-angled) species such as stickleback and/or no more than 10 coarse fish or trout.
Category 4	No impact	<ul style="list-style-type: none"> ▪ Substantiated incident with no impact to fish stocks.



Environment Management (air, land and water) incidents

Introduction – air, land and water

Incidents within the responsibility of Environment Management must be assigned an impact category for each of the environmental media (air, land and water) affected that are within the Environment Agency's responsibility or area of business.

Impacts within our area of business

Any impact to surface waters or groundwater is within our business. Only assess impact on air and land when it arises from a site, substance or process under the regulation of the Environment Agency. Our responsibilities include:

- impacts from activities that cause damage to the physical habitat of a water body;
- spillage or discharge from a facility regulated under the Environmental Permitting (England and Wales) Regulations 2010:
 - installations;
 - mobile plant;
 - waste operation (formerly under Waste Management Licenses);
 - mining waste operation;
 - water discharge activity;
 - groundwater activity;
 - radioactive substances activity;
- any activities which are registered as exempt under the Environmental Permitting Regulations;
- amenity issues at regulated sites
- sites regulated under the Control of Major Accidents and Hazards Regulations;
- controlled waste (including sewage) and illegal deposit of waste (where it is our responsibility under the [Flytipping Protocol](#) for [England](#) and [Wales](#));
- any other water quality incidents (including impact of sediment or blue/green algae).

This methodology applies regardless of whether there are specific conditions relating to the impact attached to the permission.

Impacts outside our business

Assign impacts that are not within our area of business as 'impact not within Environment Agency business' on NIRS. This option only applies to the environmental media of air and land. For example:

- A death caused by smoke inhalation at a fire at a site, substance or process that we do not regulate will be assigned as not within Environment Agency business for air.
 - A spillage from a domestic tank (and where the Oil Storage Regulations do not apply) which has resulted in soil contamination will be assigned as not within Environment Agency business for land.
 - Erosion resulting in run-off contaminated with soil when it rains will be assigned as not within Environment Agency business for land.
-

Impacts on human health

It is important to consider and record the impact the incident has on human health (for a site, substance or process we regulate) even though we are not experts in human health.

Consider the offence caused to human senses. This is particularly important when assessing the impact from noise, dust and odour.

Consider the possible links between the source, pathway and any human receptors. You will probably need to get advice from the local authority Environmental Health department and / or Public Health England (PHE).

You must notify PHE of incidents that have a potential or actual Category 1 or 2 impact and where there is likely to be public concern about the health effect or people could be exposed to the hazardous substance. Refer to [Operational instruction 134_07](#) on the notification of pollution incidents affecting human health to PHE.

Impact on ecology – consult F&B teams

Refer to impact on [ecology](#) and consult area Fisheries and Biodiversity (F&B) teams whenever an incident may have impacted on ecology. Ecological incidents have been categorised by impact to [nature conservation](#) for protected sites and species, [physical habitat](#) for hydromorphological damage and [fish stocks](#). You must consider any implications under the [Environmental Damage Regulations](#). F&B must consult Analysis and Reporting teams for input on Water Framework Directive impacts.

Natural phenomenon /forces

Record incidents that can be attributable to natural phenomenon or forces under the appropriate Environment Management (air, land and water) impact scheme.

Natural sources include iron deposits on a stream bed and oil films from decaying vegetation/peat. The pollution of water with soil, which is linked to poor land management practices, is not a natural phenomenon. Ensure you select the correct cause on NIRS.

Record the death of fish and other aquatic wildlife caused by other natural phenomenon such as low flows, fish disease, and spawning stress under the appropriate Water Resources or Fisheries impact scheme. Refer to [Recording dry weather and drought related incidents](#).

In other cases, such as fish kills following algal blooms which may be due to low dissolved oxygen or algal toxin, the function taking the lead in the incident must classify the incident. Refer to [Methodology – type of incident](#).

Incidents involving radioactivity

Classify incidents involving radioactivity using the Environment Management (air, land and water) criteria. Incident classification must only be undertaken by a person experienced in radioactive substances or in consultation with them. Examples of incidents for each category are given below.

Category 1

- Significant and extensive radioactive contamination requiring major countermeasures including environmental monitoring and sampling.
- Public receive a significant dose of radiation.

Example of incidents which have a potential Category 1 impact:

- Emergency at a civil nuclear site the UK.
- Emergency involving a defence nuclear site, a nuclear submarine in port or nuclear weapons in transit.
- Hostile use of radioactive materials.

Category 2

- Localised dispersion of radioactive materials and contamination requiring limited countermeasures.
- Public receive low dose of radiation.

Example of incidents which have a potential Category 2 impact:

- Loss of control and a significant breach of an authorisation.
- Fire involving radioactive materials of significant activity.
- Loss of a radiography source of significant activity.

Category 3

- No intervention or very limited intervention needed.

Example of incidents which have a potential Category 3 impact:

- Loss of a low dose rate sealed source.
- Minor breach of authorisation.

Incidents involving radioactivity are likely to require a lot of resource to manage due to the high level of media, public and political interest. Assess the potential impact on resources early on; declare a major incident if a [Level A response](#) will be needed.

Methodology

Select from the listed criteria those that are applicable to determine the impact level for each environmental media. The level assigned will be the category in which the highest criteria selected are listed. For example, the release of a small quantity of phenol leading to a limited impact on water quality (Category 3) but necessitating the closure of a public water intake (Category 1), would be classified as a Category 1.

Assign 'no impact' for any environmental media not affected by the incident. For example, the flytipping of inert waste which only had an impact on land, would be assigned as Category 4 for air and water.

Assign 'impact not within Environment Agency business' for air and land where the impact is not within our business.

Use these categories when assessing the potential impact (to inform the level of response), and when assessing the final category of the actual environmental impact. Assess the impact under all media: [air](#), [land](#) and [water](#).

Impact on air

Definition of air

'Air' includes impacts related to air quality, noise, odour, flies and dust/particulate fallout. We are responsible for co-ordinating air quality monitoring and modelling for major air pollution incidents, irrespective of source. For all other incidents, only assess impact on air when it arises from a site, substance or process under the regulation of the Environment Agency.

Assign impacts that are not within our area of business as 'impact not within Environment Agency business' on NIRS. For example, a death caused by smoke inhalation at a fire at a site, substance or process that we do not regulate. **Note:** Our operational response for major air pollution incidents is broader than our regulatory remit, and the impact of these incidents on air must be assessed.

We are responsible for taking action if emissions of noise, dust, flies or odour from facilities we regulate are considered to represent a statutory nuisance by the local authority.

Guidance on categorising impacts to human senses and amenity issues are provided in a separate section. These must be considered in addition to the main guidance on impacts to air. The level assigned will be the category in which the most serious criteria selected are listed.

Do not forget to consider the possible impact on land and water from any fall-out from air. Record any impacts on surface waters or groundwater under the '[Impact on water](#)' scheme. Record any impacts on land under the '[Impact on land](#)' scheme.

Assessing effects on air quality

Assess effects on air quality against the UK Air Quality Strategy (AQS) standards.

Consider the following aspects when determining the impact:

- the effects of weather and/or traffic (these will need to be differentiated from the effect of the polluting source);
- the duration of the incident, the actual pollutant levels;
- the frequency of the incidents and their immediate and/or longer term impact on UK AQS objectives or local Environmental Quality Standards;
- the scale of the pollutant release.

Incidents related to the exceedence of UK AQS standards may arise from alarm conditions from Defra's or the local authorities' monitoring networks as well as from reports by the public.

Note: Major incidents arising from an installation would probably cause one or more breaches of the permit/authorisation with gross exceedence of emission limits.

The Pollution Inventory can provide some historical emission history for a particular installation to view the seriousness and abnormality of the release.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major effect on air quality	<p>A persistent and/or extensive effect on air quality including:</p> <ul style="list-style-type: none"> ▪ Release of materials which directly cause or will lead to significant exceedence of the standards in the UK Air Quality Strategy for a sustained period, over an extensive area. ▪ Extensive and significant deterioration in air quality from a release of large quantities of toxic materials. This may follow a serious loss of control, major fire or major equipment failure. Smoke and combustion products arising from a fire contain toxic materials. ▪ Release of very large quantities of materials which are prohibited in production and/or use (such as, CFCs linked to global warming or ozone depletion).
	Major damage to nature conservation	<ul style="list-style-type: none"> ▪ Release causing major adverse effect on a statutorily protected site or on a species or Water Framework Directive water body. <p>Refer to Impact on nature conservation sites and species for guidance.</p> <p>Major damage to nature conservation can arise from acute effects of a major toxic or radioactive release, although dispersion by wind of the pollutants even for large releases often ameliorates the impact of single major incidents.</p> <p>Chronic effects can arise from sustained pollutant release although the full impact may only become evident some months or even years later.</p>
	Serious effect on human health	<ul style="list-style-type: none"> ▪ Fatality, serious injury (such as loss a limb or organ) or acute effect on human health as a result of release of substance(s) to atmosphere. This could apply to employees on the release site (for which HSE are responsible under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations [RIDDOR]) or the general public. ▪ Public exposed to concentration levels over a widespread area giving rise to serious and known health risks in either the short or longer term following a release. Likely to cause severe offence to human senses. <p>This could include smoke and combustion products arising from a major fire or a short term but very toxic high impact release.</p> <p>The incident may need significant intervention and remedial action by the emergency services. For example, a containment failure at a hazardous waste treatment facility which led to the release of hydrogen sulphide, the evacuation of local residents and hospitalisation of two or more workers.</p> <p>Significant effects may be noticed by sensitive and non-sensitive individuals and action to avoid these effects may be needed (such as evacuation).</p>
Major effect on amenity value	<ul style="list-style-type: none"> ▪ Release resulting in a major adverse effect on an important recreation activity or public event prohibiting the normal range of activities. For example, cancellation a national sporting event following a release from a regulated site. 	

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		<ul style="list-style-type: none"> Release resulting in danger to the public requiring action by the emergency services to advise the public on window closure, the need to remain indoors, closure of access roads or evacuation of property.
	Major impact on property	<ul style="list-style-type: none"> Release or significant fall out of material causing serious contamination of property requiring specialised remediation, decontamination or destruction of property.
	Major damage to agriculture/ commerce	<ul style="list-style-type: none"> Major damage to agricultural activity such as the extensive contamination of crops or soil rendering them unfit for use and/or death or slaughter of livestock, due to airborne pollution. Major disruption to commercial interests such as extended closure of an industrial site serious interruption of production due to airborne pollution.
Category 2	Significant effect on air quality	<ul style="list-style-type: none"> Release of materials which directly causes or will lead to significant exceedence of the standards in the UK Air Quality Strategy for a sustained period, over a localised area. Noticeable and sustained deterioration in air quality from visible sources (dust and particulate fallout) or emission of toxic materials impacting on the locality. Release of large quantities of materials which are prohibited in production and/or use (such as, CFCs linked to global warming or ozone depletion).
	Significant damage to nature conservation	<ul style="list-style-type: none"> Damage to a statutorily protected site or species or Water Framework Directive water body. Extensive and/or significant damage to BAP species or habitats and non-statutory protected species. <p>Refer to Impact on nature conservation sites and species for guidance.</p>
	Significant effect on human health	<ul style="list-style-type: none"> Significant injury (usually involving the need to go to hospital) or effect on human health as a direct result of release of substance(s) to atmosphere. Public exposed to concentration levels giving rise to possible minor health risks in either the short or longer term following a release into the atmosphere. Likely to cause significant offence to human senses. <p>Significant effects may be noticed by sensitive individuals and action to avoid or reduce these effects may be needed (such as reducing exposure by spending less time in polluted areas outdoors). Asthmatics will find that their 'reliever' inhaler is likely to reverse the effects on the lung.</p>
	Significant effect on amenity value	<ul style="list-style-type: none"> Significant adverse effect on recreational activity, event or public space, prohibiting the normal range of activities. This includes effects caused by smoke and airborne dust.
	Significant impact on property	<ul style="list-style-type: none"> Significant damage to property. This includes damage caused to car paintwork and windows from the fall out of material and resulting in compensation claims against the responsible party.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
	Significant damage to agriculture/ commerce	<ul style="list-style-type: none"> Significant but localised damage to agricultural activity. Such as, the contamination of crops which need extra treatment to restore to useable condition. Or distress to livestock and the need for veterinary treatment. Significant damage to commercial activity such as the short-term closure of a site or limited loss of production.
Category 3	Minimal effect on air quality	<ul style="list-style-type: none"> Shorter term, local effect on air quality arising from smells or visible impact (smoke and dust).
	Minor damage to local nature conservation	<ul style="list-style-type: none"> Very limited impact upon nature conservation or Water Framework Directive water body. <p>Refer to Impact on nature conservation sites and species for guidance.</p>
	Minimal effect on human health	<ul style="list-style-type: none"> Minor injury or effect on human health as a direct result of release of substance(s) to atmosphere. For example, a few individuals with temporary sore throats or headaches. Record the impact as a Category 2 where multiple complaints of minor health effects are reported. Public exposed to concentration levels that present no known or a minimal risk to health. Likely to be mildly offensive to senses. <p>Mild effects, which are unlikely to require action, may be noticed amongst sensitive individuals.</p>
	Minor effect on amenity value	<ul style="list-style-type: none"> Minor transitory affect on the public local to the site. May be considered to be a minor nuisance, with minor effects on the normal range of activities.
	Minor impact on property	<ul style="list-style-type: none"> Minor effect on property. This includes visible fallout of inert dust or particulate, onto car paintwork or buildings, but which causes no damage and is easily removed.
	Minimal damage to agriculture/ commerce	<ul style="list-style-type: none"> Minor damage to agriculture or commerce. Such as, inert dust or particulate fallout but which has no deleterious effect on crops, livestock or commercial activity. Would be easily washed off by rain or water.
Category 4	No impact	<ul style="list-style-type: none"> Substantiated incident with no impact to air quality.

Guidance when assessing impact from noise

Impact from noise

The human reaction to noise is very subjective, and is influenced by volume, duration, time of day, the nature of the noise source, and its characteristics. Although noise does not accumulate in the environment, the annoyance it causes can be cumulative, leading to mental and physical stress. Consider the offensiveness to human senses and sensitivity of receptors. Noise sensitive receptors include residential properties, hospitals, schools, residential care homes, offices and hotels.

Significant noise impacts can have a disruptive effect on large bird assemblages. You must therefore also consider [nature conservation sites and species](#) and implications under the [Environmental Damage Regulations](#). Categorise the impact according to the criteria in the table above.

Noise can be measured to give a numerical level and a description of its frequency characteristics; however, this does not always give an accurate impression of how annoying a noise can be to the receptor.

Typical causes of noise incidents include safety alarms, pressure release valves and temporary, or stand-by pumps, emergency generators or particularly noisy works of repair or maintenance.

We are not responsible for noise nuisances that are not directly associated with the installation or activity we regulate. For example, intruder alarms and construction works which are not part of the permitted activity.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Serious effect on human senses	<p>Noise causing a serious and widespread effect on human senses.</p> <ul style="list-style-type: none"> Serious effects include noise which is at a volume, duration or characteristic (intermittency, impulse or tone) that it is very offensive to human senses and prevents sleep. A widespread effect means affecting a lot of people in sensitive receptors, such as a large residential area or hospital.
	Major effect on amenity value	<p>Noise causing a major adverse effect on an important recreation activity or large public event.</p> <ul style="list-style-type: none"> Noise at a sufficient volume, duration or characteristic that it significantly disrupts or closes the event.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 2	Significant effect on human senses	<p>Noise abnormal and prolonged enough to cause significant effect on human senses. This includes mild noise that occurs so frequently as to cause a greater degree of disturbance than would otherwise be expected.</p> <ul style="list-style-type: none"> ▪ The noise would be disturbing or annoying by way of volume, duration, or characteristics. ▪ Abnormal means that the noise that is significantly louder or more intrusive and offensive than the normal operational noise climate, affecting people either inside or outside noise sensitive premises. ▪ Temporary works of construction or maintenance may also be regarded as abnormal. Excessive noise due to mechanical wear or failure of silencers for example could also give rise to an incident, as could noise from transport or vehicles movements within the site boundary.
	Significant effect on amenity value	<p>Noise causing a significant adverse effect on an amenity or recreation area (such as a park).</p> <ul style="list-style-type: none"> ▪ Noise at a sufficient volume, duration or characteristic that it prevents or restricts some of the local population's use of an amenity or recreation area.
Category 3	Minimal effect on human senses	<p>Mildly offensive, short-term and/or intermittent noise that causes minimal effect on human senses.</p> <ul style="list-style-type: none"> ▪ Usually involves a change in normal noise emissions which is short-term and/or intermittent and affects people outside buildings. ▪ Noises are often distinct and can be discerned in the presence of other sources of noise. For example, a change in noise characteristics such as whines, clatters, hums or an alarm sounding occasionally for short periods.
	Minor effect on amenity value	<p>Noise resulting in a minor or transitory effect on local amenities and leisure areas.</p> <ul style="list-style-type: none"> ▪ Likely to involve amenities which aren't generally tranquil areas, or a noise which does not restrict the use of the amenity. This includes children's playgrounds, sports pitches, public footpath and private gardens.
Category 4	No impact	Substantiated incident with no impact.

Guidance when assessing impact from odour

Impact from odour

Effects of smells can sometimes result in serious "perceived" issues by the public or a few persistent complainants. Although there may be little environmental damage or low health risks, incidents may need more action than would normally be expected from the category of incident.

Consider the offensiveness to human senses and sensitivity of receptors. Sensitive receptors include residential properties, locations where there is a predominance of infants, elderly people or those with existing illness or who are immunocompromised e.g. hospitals, schools, residential care homes. Use the Fidor assessment as prescribed in H4 – Odour.

We are not responsible for odour nuisances from waste previously recycled in accordance with the regulations. For example, spreading of sludge to land which was recycled in accordance with the Sludge (Use in Agriculture) Regulations. This is the responsibility of the local authority under their statutory nuisance powers.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Serious effect on human senses	<p>Odour causing a serious or widespread effect on human senses.</p> <ul style="list-style-type: none"> Serious effect on any individuals might, for example, cause nausea or sickness requiring medical attention. Or causing distress to sensitive receptors e.g. patients in hospital, nursing home or school. Odour that is intense, very offensive to human senses, persistent or extensive enough that it leads to a widespread change in behaviour of those exposed e.g. more than fifty complaints during 24 hours where people have to shelter (windows and doors closed) for several hours. A widespread effect e.g. complaints are received from many of the local community e.g. more than one hundred complaints within 24 hours (not necessarily sheltering).
	Major effect on amenity value	<p>Odour causing a major adverse effect on an important recreation activity or large public event.</p> <ul style="list-style-type: none"> Odour that is intense, offensive, persistent or extensive enough that it significantly disrupts or closes the event.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 2	Significant effect on human senses	<p>Odour offensive and persistent enough to cause significant effect on human senses.</p> <ul style="list-style-type: none"> ▪ Odour that is intense and offensive to human senses, persistent or extensive enough that it leads to a noticeable change in behaviour of those exposed e.g. more than ten complaints during one week where people have to shelter (windows and doors closed) ▪ A widespread effect e.g. complaints are received from some of the local community e.g. more than twenty complaints within one week (not necessarily sheltering) ▪ An ongoing odour issue, which for a reasonable proportion of the time, is of a significant intensity or extent ▪ Abnormal odour which leads to noticeable adverse impact on local businesses.
	Significant effect on amenity value	<p>Odour resulting in a significant adverse effect on an amenity or recreation area (such as a park) or preventing reasonable use of a domestic area, such as a garden or allotment.</p> <ul style="list-style-type: none"> ▪ Odour that is intense, offensive, persistent or extensive enough that it prevents or restricts some of the local population's use of a public or private amenity or recreation area.
Category 3	Minimal effect on human senses	<ul style="list-style-type: none"> ▪ Odour that is transitory and offensive to human senses, causing a few complaints but not warranting a change in behaviour of those exposed e.g. one or two complaints in one week ▪ An ongoing odour issue of minor intensity or extent.
	Minor effect on amenity value	<p>Odour resulting in a minor or transitory effect on local amenities and leisure areas.</p> <ul style="list-style-type: none"> ▪ Likely to involve amenities which aren't generally heavily populated or an odour which does not restrict the use of the amenity. This includes public footpaths.
Category 4	No impact	Substantiated incident with no impact.

Impact on land

Definition of land

'Land' includes any impacts on soil, the built environment and anything which is part of the terrestrial ecosystem (such as plants and animals).

Only assess impacts on land when it arises from a site, substance or process under the regulation of the Environment Agency. Assign impacts that are not within our area of business as 'impact not within Environment Agency business' on NIRS. For example, a spillage from a domestic tank (and where the Oil Storage Regulations do not apply) which has resulted in soil contamination.

Do not record soil damage observed during a farm Cross Compliance visit as an incident unless it is having, or immediately about to have, an impact which is within our area of business (such as pollution of surface waters or groundwater). Erosion resulting in run-off contaminated with soil when it rains will be assigned as not within our business **for land**.

Consider the impact on surface waters and groundwater

Whenever land contamination occurs do not forget to consider the possible impact on surface water, groundwater and the potential impact on receptors of groundwater baseflow. Record any impacts on surface waters or groundwater controlled water under the '[Impact on water](#)' scheme.

Take account of the delayed effect of contaminants moving through the soil into surface water or groundwater. Consult Groundwater and Contaminated Land Officers for advice on the potential impact, long-term monitoring needs and remediation work required.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major contamination of land	<ul style="list-style-type: none"> Persistent and/or extensive contamination of land which has a major impact on the use or quality of that land and is likely to need extensive decontamination measures. <p>For flytipping incidents, this is likely to involve toxic/hazardous or infectious wastes with an immediate risk of serious pollution or harm to human health.</p> <p>Consider the damage to soil caused by decontamination activities. The need for extensive restoration would be regarded as a Category 1 impact.</p>
	Major damage to terrestrial nature conservation	<ul style="list-style-type: none"> Major adverse effect on a statutorily protected site or species or Water Framework Directive water body. <p>Refer to Impact on nature conservation sites and species for guidance.</p>
	Serious effect on human health	<ul style="list-style-type: none"> Fatality, serious injury (such as loss a limb or organ) or acute effect on human health. This could apply to employees on the release site (for which HSE are responsible under RIDDOR) or the general public. Public exposed to concentration levels over a widespread area giving rise to serious and known health risks from a site, substance or process under our regulation. For example from a chemical spill on a site we regulate or flytipped hazardous waste.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		Record incidents as Category 1 where the public have come into contact with substances we regulate and have been exposed to concentration levels exceeding toxicological limits known to cause short or long term serious health problems. Consider possible implications under the Environmental Damage Regulations where land damage causes a significant risk of adverse effects on human health.
	Major effect on amenity value	<ul style="list-style-type: none"> ▪ Major adverse effect on an important recreation activity or public event prohibiting the normal range of activities. For example, the cancellation of a national sporting event following the fly-tipping of toxic/hazardous materials.
	Major impact on property	<ul style="list-style-type: none"> ▪ Serious damage or destruction to a site, residential housing and/or commercial buildings or renders them unusable. <p>This is likely to be due to an explosion and/or large scale fire at a site, substance or process under our regulation.</p> <ul style="list-style-type: none"> ▪ The need to evacuate persons/and or restrict access over a wide area. For example, evacuation due to the build up of landfill gas in a property. <p>Usually record incidents as Category 1 when levels of landfill gas exceed 1% v/v Methane/flammable gas or 1.5% Carbon Dioxide anywhere near a building. This includes general voids in an occupied area, unoccupied voids near occupied areas or points of ingress into occupied areas (such as service ducts). Any evacuation due to landfill gas will usually be regarded as a Category 1 incident.</p>
	Major damage to agriculture/ commerce	<ul style="list-style-type: none"> ▪ Major damage to agricultural activity. For example, the extensive contamination of crops or soil rendering them unfit for use, and the death or slaughter of unfit livestock. Causes include fly-tipping of toxic/hazardous or the inappropriate land spreading of waste. ▪ Major disruption to commercial interests such as extended closure of an industrial site or serious interruption of production. Causes include fly-tipping of toxic/hazardous or contaminated wastes, large quantities of wastes, or a build up of landfill gas.
Category 2	Significant contamination of land	<ul style="list-style-type: none"> ▪ Significant but localised contamination of land which has a significant impact on the use or quality of that land. <p>Record incidents as Category 2 where contamination levels are less severe but over a wide area. Consider the damage to soil caused by decontamination activities.</p>
	Significant damage to terrestrial nature conservation	<ul style="list-style-type: none"> ▪ Significant damage to a statutorily protected site or species or Water Framework Directive water body. ▪ Extensive and/or significant damage to BAP species or habitats and non-statutory protected species. <p>Refer to Impact on nature conservation sites and species for guidance.</p>

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
	Significant effect on human health	<ul style="list-style-type: none"> Significant injury (usually involving the need to go to hospital) or effect on human health associated with a site, substance or process under our regulation. Public exposed to concentration levels giving rise to possible minor health risks from a site, substance or process under our regulation.
	Significant effect on amenity value	<ul style="list-style-type: none"> Significant adverse effect on a recreational activity, event or public space, prohibiting the normal range of activities. This includes a significant infestation by insects or rodents. It may involve the need to issue public warnings to avoid localised areas, such as closure of a popular footpath. Significant adverse effect on aesthetic quality. For example, gross sewage debris or large quantities of litter deposited on land adjacent to private dwellings or popular recreational areas.
	Significant impact on property	<ul style="list-style-type: none"> Superficial damage to a site, residential housing and/or commercial buildings but has not made them unusable. This is likely to be due to a localised explosion or significant fire, or other incident involving a site, substance or process under our regulation. The need to restrict access over a local area. For example, restricted access due to the build up of landfill gas in a non-residential property. <p>Usually record incidents as Category 2 when levels of landfill gas are below 1% v/v Methane flammable gas or 1.5% Carbon Dioxide anywhere in a building (that is, occupied or unoccupied voids) but where it is seen to be rising above background levels.</p>
	Significant damage to agriculture/commerce	<ul style="list-style-type: none"> Significant but localised damage to agricultural activity. For example, the limited loss of crops due to fly-tipping of wastes of a toxic/hazardous nature or other wastes in significant quantities. Effect on livestock causing distress and the need for veterinary treatment. Significant damage to commercial activity such as the short-term closure of a site or limited loss of production.
Category 3	Minimal contamination of land	<ul style="list-style-type: none"> Insignificant or temporary contamination of land having no overall effect on the use or quality of that land. For example, where a piece of land has been contaminated with small amounts of litter and causes minimal pollution. <p>For small scale flytipping incidents we may have agreed with the local authority to carry out the investigation where a frequently repeated offence or organised crime is suspected (refer to the Flytipping Protocol for England and Wales).</p>
	Minor damage to terrestrial nature conservation	<ul style="list-style-type: none"> Very limited impact upon nature conservation or Water Framework Directive water body. <p>Refer to Impact on nature conservation sites and species for guidance.</p>

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
	Minimal effect on human health	<ul style="list-style-type: none"> Minor injury or effect on human health associated with a site, substance or process under our regulation. Record as a Category 2 where multiple complaints of minor health effects are reported. Public exposed to concentration levels that present no known or minimal risk to health.
	Minor effect on amenity value	<ul style="list-style-type: none"> Minor impact on aesthetic quality, for example small amounts of litter.
	Minor impact on property	<ul style="list-style-type: none"> Minor damage or contamination to a site, housing and/or commercial building which is easily repaired or cleaned.
	Minimal damage to agriculture/commerce	<ul style="list-style-type: none"> Agricultural land or commercial site temporarily affected, but not declared unfit for agricultural or commercial activity.
Category 4	No impact	<ul style="list-style-type: none"> Substantiated incident with no impact to land.

Impact on water

Definition of water

'Water' includes surface waters (inland freshwaters, coastal waters and relevant territorial waters as defined in Section 104 of the Water Resources Act 1991) and groundwater (all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil). A dry river bed is part of the watercourse and therefore part of surface waters.

Impact on surface waters and groundwater

Any spillage or discharge of noxious, poisonous or polluting matter to surface waters or groundwater will be presumed to have an impact. It is the responsibility of the operator to prove otherwise. Refer to [16_02 Operational instruction](#) on recording and categorising water industry and operator reported incidents.

For the purposes of this scheme, polluting matter includes anything which can cause a physical change to water or harm to living organisms. It includes organic matter, silt and soil, heated/cooled water, naturally occurring substances that exceed natural levels (such as algae), substances that cause a colour change, and chemical substances.

Impact on groundwater

Do not forget to consider the possible impact on groundwater and water abstracted from groundwater sources.

Consider the potential impact on receptors of groundwater baseflow whenever groundwater contamination may have occurred. These include nearby watercourses where groundwaters provide an important contribution to the flow, and terrestrial habitats that are dependent on groundwater (such as wetlands, fens, wet flushes, mires and bogs).

Take account of the delayed effect of contaminants moving in the groundwater from the point of the incident before they emerge into the surface water or groundwater dependent habitats.

Consult Groundwater and Contaminated Land Officers for advice on the potential impact, long-term monitoring needs and remediation work required.

Incidents involving algae

Make sure you consider the impact of algae under all impact criteria (such as water quality, amenity value and human health). All algal-related incidents must be recorded on NIRS, unless detected through routine monitoring and where no ongoing problem or environmental damage is evident. A definition of algal incidents is given in Operational instruction 905_08 [Managing marine and freshwater algal incidents](#).

Impact on water – methodology

To assist you in making comparisons between each category, the impact criteria are divided into:

- [Impact on water quality](#)
- [Impact on potable abstractions](#)
- [Impact on ecology](#)
- [Impact on human health](#)
- [Impact on amenity value](#)
- [Impact on agriculture/commerce](#)

Consider each of these impact criteria when assigning the impact level. It is not possible to provide a definitive classification for every eventuality. Use this framework to interpret incidents that do not readily fall into a clear category or in circumstances that justify classifying outside this guidance.

Impact on water quality

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major effect on water quality	<p>A persistent and/or extensive effect on water quality which has a serious effect on the quality or use of that water.</p> <p>Persistent</p> <ul style="list-style-type: none">▪ For surface water, 'persistent' means an effect is still evident at least 7 days from the date that contamination enters the water.▪ For groundwater, contamination is nearly always likely to be persistent even for relatively small incidents. Persistence may be measured in decades or even centuries depending on various physical and chemical

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		<p>factors. Whilst the persistence in groundwater is a factor to consider in categorising the impact, emphasis must be on the extent and severity of the pollution.</p> <p>Extensive</p> <ul style="list-style-type: none"> ▪ For surface waters, ‘extensive’ means an effect over several kilometres of a watercourse or a large area of a still water or coastal waters. As a guide, use 1-2km, but some subjectivity may be applied. For example, a major deterioration in water quality or covering of silt over half a kilometre on a large important river (such as the lower Severn or Thames) would be a Category 1 incident. ▪ For groundwater, ‘extensive’ refers to incidents that due to the volumes and concentrations involved are likely to result in a contamination plume extending beyond 50m in any aquifer. <p>Serious</p> <ul style="list-style-type: none"> ▪ For surface waters, ‘serious’ effects include levels of dangerous substance(s) exceeding toxicity levels known to cause serious harm/death to aquatic life or dissolved oxygen levels falling to critical levels. It would not include minor impacts such a slight drop in dissolved oxygen levels even if they extend over several kilometres. ▪ For groundwater, ‘serious’ effects is where contaminants are known to have caused or are in sufficient volume or concentration that they are likely to cause: <ul style="list-style-type: none"> ▪ the serious effects described above for surface water as a result of contaminants being transmitted in the groundwater flow; ▪ exceedance of any relevant quality standard for hazardous or non-hazardous pollutant at a borehole, well or spring supply used for human consumption; or ▪ hazardous substances (as set out in the WFD/GW Regulations) discernible above pre-existing levels in the groundwater beyond 50m in any aquifer. ▪ Apply Category 1 where damage would lead to a deterioration in status of a Water Framework Directive water body (this has implications under the Environmental Damage Regulations). ▪ As an additional guide for soil run-off incidents, suspended solid concentrations are exceptionally high (>1000mg/l) compared to background levels upstream of incident.
Category 2	Significant effect on water quality	<p>Significant but normally localised effect on water quality which has a significant impact on the quality or use of that water.</p> <ul style="list-style-type: none"> ▪ For surface waters, examples of Category 2 impacts include silt or soil, low dissolved oxygen or high ammonia levels along an extensive stretch of a water body. Impacts may be up to a couple of hundred metres in a larger water body or effects over several kilometres (such as a heavy rainbow coloured oil film). ▪ For groundwaters, a ‘significant’ impact is where contaminants are known to have caused or are in

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		<p>sufficient concentration that they are likely to cause:</p> <ul style="list-style-type: none"> ▪ the impacts described above on surface waters as a result of contaminants being transmitted in the groundwater flow; ▪ hazardous substances discernible above pre-existing levels in the groundwater within 50 metres; or ▪ non-hazardous pollutants exceed the relevant environmental standards applicable to that groundwater beyond 50 metres. <p>▪ As an additional guide for soil run-off incidents, suspended solid concentrations are exceptionally high (>500mg/l) compared to background levels upstream of incident.</p>
Category 3	Minimal effect on water quality	<p>Limited and localised effect on water quality which has a minimal impact on the quality or use of that water.</p> <ul style="list-style-type: none"> ▪ For surface waters, impacts are normally localised around the point of discharge, but could include an impact extending over a few kilometres of a stream (such as a thin oil sheen). ▪ For groundwater, impacts are normally localised around the point of discharge and the pollution unlikely to spread within geological strata. Minimal effects include: <ul style="list-style-type: none"> ▪ where hazardous substances are unlikely to get into the groundwater or will only do so to a minimal extent; ▪ where the impact of non-hazardous pollutants is unlikely beyond 50m and abstractors and other receptors, such as groundwater dependent terrestrial ecosystems, are not at risk. ▪ As an additional guide for soil run-off incidents, suspended solid concentrations are exceptionally high (>250mg/l) compared to background levels upstream of incident.
Category 4	No impact	Substantiated incident with no impact to water quality.

Impact on potable abstractions

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major effect on a potable abstraction point	<ul style="list-style-type: none"> ▪ Necessary closure of a strategically important potable surface or groundwater abstraction, to prevent contamination or further contamination of that source, due to an actual deterioration in water quality, that has or would have a major impact on the water supply (such as requirement to provide bottled water). ▪ For strategic groundwater sources the impact is likely to be less immediate but closure of the abstraction may be no less justified if the incident occurs within a Source Protection Zone. ▪ Do not apply Category 1 if the closure of an abstraction is precautionary.
Category 2	Significant effect on a potable abstraction point	<ul style="list-style-type: none"> ▪ Precautionary closure of a strategically important potable surface or groundwater abstraction to prevent contamination of that source, that has or would have a significant impact on the water supply (such as requirement to provide bottled water to a small community). ▪ Apply Category 2 to the precautionary closure of a strategic groundwater abstraction where the incident did not fall within its nature conservation source protection zone. ▪ Necessary closure of a minor unlicensed potable surface or groundwater abstraction (such as serving one or two households) due to an actual deterioration in water quality. ▪ Significant action or treatment required by the operator to address a deterioration in water quality, such as blending with uncontaminated water.
Category 3	Minor effect on a potable abstraction point	<ul style="list-style-type: none"> ▪ Precautionary closure of an unlicensed potable groundwater or surface water abstraction. ▪ Minor action or treatment required by the operator to address a deterioration in water quality with no impact on the ability to supply water.
Category 4	No impact	<ul style="list-style-type: none"> ▪ Substantiated incident with no impact to abstractions.

Impact on ecology (water)

Impact on ecology - consult F&B teams

Refer to impact on [ecology](#) and consult area Fisheries and Biodiversity (F&B) teams whenever an incident may have impacted on ecology. Ecological incidents have been categorised by impact to [nature conservation](#) for protected sites and species, [physical habitat](#) for hydromorphological damage and [fish stocks](#). You must consider any implications under the [Environmental Damage Regulations](#). F&B must consult Analysis and Reporting teams for input on Water Framework Directive impacts.

Incidents involving fish kills

Fisheries Officers must be notified of any incident involving a fish kill or fish in distress.

Consider the impact on the species, the status of the fishery and the ecology of the water body when you assess the significance of a fish kill.

You must also consider the effect of the incident on the ecology and ability of the water body to support a fishery, such as silt deposits on spawning areas.

Refer to [Impacts on fish stocks](#) and seek guidance from Fisheries teams when classifying the impact of pollution incidents resulting in fish kills.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major damage to aquatic or groundwater dependent nature conservation	<p>Major damage to nature conservation</p> <ul style="list-style-type: none"> Major adverse effect on a statutorily protected site or species or Water Framework Directive water body <p>Refer to Impact on nature conservation sites and species.</p> <p>Major contamination/coverage</p> <ul style="list-style-type: none"> Gross and extensive contamination or coverage of the bed of the watercourse, water column or surface. <ul style="list-style-type: none"> Contamination may be by fungal/bacterial/algal growths, sewage debris or particulate matter including silt deposition and ferrous deposits from mine-water. 'Extensive' means an effect over several kilometres of a watercourse or a large area of a still water, as a minimum. As a guide use 1-2km, but some subjectivity may be applied. <p>Category 1 impacts may have implications under the Environmental Damage Regulations.</p>
	Major damage to physical habitat	Refer to Impacts on physical habitat (includes fish habitat).
	Major damage to fish stocks	Refer to Impacts on fish stocks (includes all fish species).
Category 2	Significant damage to aquatic or groundwater dependent nature conservation	<p>Significant impact on nature conservation</p> <ul style="list-style-type: none"> Damage to a statutorily protected site or species or Water Framework Directive water body. Extensive and /or significant damage to BAP species or habitats and non-statutory protected species. <p>Refer to Impact on nature conservation sites and species.</p> <p>Significant contamination/coverage</p> <ul style="list-style-type: none"> Gross but localised contamination or coverage of the bed

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		<p>of the watercourse, water column or surface by fungal/bacterial/algal growths, sewage debris or particulate matter.</p> <ul style="list-style-type: none"> The contamination may be localised, such as around the point of discharge, or a more limited effect over a wider area.
	Significant damage to physical habitat	Refer to Impacts on physical habitat (includes fish habitat).
	Significant damage to fish stocks	Refer to Impacts on fish stocks (includes all fish species).
Category 3	Minor damage to aquatic or groundwater dependent nature conservation	<p>Minor impact on nature conservation</p> <ul style="list-style-type: none"> Very limited impact upon nature conservation or Water Framework Directive water body. <p>Refer to Impact on nature conservation sites and species.</p> <p>Minor contamination/coverage</p> <ul style="list-style-type: none"> Bed, column or surface of watercourse only marginally contaminated around point of discharge or in localised area. Such as a limited growth of sewage fungus around an outfall pipe.
	Minor damage to physical habitat	Refer to Impacts on physical habitat (includes fish habitat).
	Minor damage to fish stocks	Refer to Impacts on fish stocks (includes all fish species).
Category 4	No impact	<ul style="list-style-type: none"> Substantiated incident with no impact to aquatic or groundwater dependent nature conservation.

Impact on human health

Introduction

It is important to record the impact the incident has on human health due to water pollution even though we are not experts in human health. Refer to [Impacts on human health](#) for further information.

Impacts on potable water only apply where contamination has occurred before the point of abstraction. Incidents involving the supply of water contaminated after the point of abstraction are not within our remit.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Serious effect on human health	<ul style="list-style-type: none"> Fatality or serious effect on human health from direct contact/exposure to pollutants in surface waters, or through the supply of contaminated potable water following an incident in surface water or groundwater. There is a risk to human health when algal toxin

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		<p>levels exceed the recreational or drinking water warning threshold values. Refer to OI 905_08 on the management of algal incidents.</p> <ul style="list-style-type: none"> ▪ Public exposed to concentration levels over a widespread area giving rise to serious and known health risks as a result of contamination of surface waters or groundwater following a pollution or algal incident. ▪ Supply of contaminated drinking water with levels of pollutants/pathogens exceeding toxicological limits known to cause serious health problems.
Category 2	Significant effect on human health	<ul style="list-style-type: none"> ▪ Significant effect on human health from direct contact/exposure to pollutants in surface water or groundwater, or through the supply of contaminated potable water following an incident. For example, several individuals with gastroenteritis. ▪ Public exposed to concentration levels giving rise to minor health problems due to contamination of surface waters or groundwater following a pollution or algal incident. ▪ Supply of contaminated drinking water with levels of pollutants or pathogens known to cause minor health problems.
Category 3	Minimal effect on human health	<ul style="list-style-type: none"> ▪ Minor effect on human health from direct contact to pollutants in surface waters or groundwater, or through the supply of contaminated potable water following an incident. <ul style="list-style-type: none"> ▪ Minor health problems include a few individuals with temporary sore throats. Apply Category 2 where multiple complaints of minor health effects are reported. ▪ Public exposed to concentration levels that present no known or minimal risk to health.
Category 4	No impact	<ul style="list-style-type: none"> ▪ Substantiated incident with no impact on human health.

Impact on amenity value

Impact on amenity value

Consider the value of the amenity at the time of the incident when determining the impact on amenity. For example, a warning flag or notice which advises people not to bath at a bathing water site is likely to be at least a Category 2, although it might only be at Category 3 in winter at a deserted beach.

Consider the duration of the impact, popularity and seasonal use of the amenity, long term impact, and quality of the amenity.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major effect on amenity value	<p>Major adverse effect on an important recreational activity or national event.</p> <ul style="list-style-type: none"> ▪ For example, cancellation or postponement of boating activity, or disruption of recreational activity including bathing. Disruption of bathing for example will be by notices being posted that advise against bathing at any beach that is EC protected or highly popular or locally important for longer than a week at the height of summer or over a bank holiday. ▪ Major impact on angling (or net fishing) activity, taking into account factors such as: the extent (km) of the fisheries affected; the number of lost fishing days (including cancellation or postponement of nationally important angling competitions); the relative importance of the fishery (nationally rather than locally important, size of club/number of permit sales); relative impact on the revenue to local fisheries and on the local economy (accommodation, tackle trade, etc); and the likely duration/extent of any longer term impacts on fishing quality, including where the reputation of local fisheries is affected. ▪ Includes incidents where groundwater has been contaminated and where it is considered likely that delayed surface water contamination will directly result in an adverse impact on the event. ▪ Includes major water use recreational activities which are partially or fully suspended due to algal outbreaks.
Category 2	Significant effect on amenity value	<p>Significant adverse effect on a recreational activity or event appropriate to the surface water affected.</p> <ul style="list-style-type: none"> ▪ For example, cancellation of a local recreational event or activity, or short lived disruption (less than a week and not over a bank holiday) to bathing at any beach that is EC protected or highly popular or locally important. ▪ Significant impact on local angling (or net fishing) activity, taking into account: the extent (km) of the fisheries affected; the number of lost fishing days (including cancellation or postponement of locally important angling competitions); the relative importance of the fishery (locally rather than nationally important, size of

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		<p>club/number of permit sales); relative impact on the revenue to local fisheries and on the local economy (accommodation, tackle trade, etc); and the likely duration/extent of any longer term impacts on fishing quality, including where the reputation of local fisheries is affected.</p> <ul style="list-style-type: none"> ▪ Includes suspension of swimming events in reservoirs, raft racing, jet skiing due to cyanobacterial scums where the water body owner must erect warning notices. <p>Significant adverse effect on aesthetic quality.</p> <ul style="list-style-type: none"> ▪ For example, gross sewage debris deposited in surface waters adjacent to private dwellings or popular recreational areas.
Category 3	Minor effect on amenity value	Minor impact on amenity value, fishing activity and/or aesthetic quality. For example a small amount of litter in stream, thin oil film, thin non-toxic algal growth, or non-harmful colour changes.
Category 4	No impact	Substantiated incident with no impact to amenity value.

Impact on agriculture/commerce

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major damage to agriculture/commerce	<ul style="list-style-type: none"> ▪ Major damage, including financial damage, to agricultural activity. This could be caused by: <ul style="list-style-type: none"> ▪ Destruction of fish farm stock, crops or livestock, including groundwater-fed watercress farms, due to abstraction/use of contaminated water following a pollution incident. ▪ Destruction of shellfish or fish farm stock due to toxin producing algae. ▪ Necessary closure of an important agricultural abstraction required, to prevent contamination or further contamination of that source. Apply a Category 2 to a precautionary closure. ▪ Major disruption to commercial interests such as extended closure of an industrial site or serious interruption of production. This could be caused by: <ul style="list-style-type: none"> ▪ Extensive contamination of product or long-term interruption of production (a day as a guide) due to the abstraction and use of contaminated water following a pollution or algal incident. ▪ Necessary closure of an important commercial abstraction required, to prevent contamination or further contamination of that source. Apply a Category 2 to a precautionary closure.
Category 2	Significant damage to agriculture/commerce	<ul style="list-style-type: none"> ▪ Significant damage, including notable financial damage, to agricultural activity. This could be caused by: <ul style="list-style-type: none"> ▪ Significant damage to fish farm stock, crops or livestock, due to abstraction and use of contaminated water following a pollution incident. ▪ Significant damage to shellfish or fish farm stock due to toxin producing algae. ▪ The precautionary closure of an agricultural abstraction. This includes incidents where the water quality is judged unfit for stock watering, or could cause damage such as the loss of part of a crop. ▪ Significant disruption to commercial interest due to: <ul style="list-style-type: none"> ▪ Limited contamination of product or short-term interruption of production (several hours as a guide) due to the abstraction and use of contaminated water following a pollution or algal incident. ▪ Precautionary closure of an industrial abstraction.
Category 3	Minimal damage to agriculture/commerce	<ul style="list-style-type: none"> ▪ Ground or surface water affected with minor impact and financial damage to agriculture or commerce.
Category 4	No impact	<ul style="list-style-type: none"> ▪ Substantiated incident with no impact.

Fisheries incidents

Introduction

Fisheries incidents include illegal fishing, fish diseases, illegal fish introductions, damage to fish habitat, disturbance of spawning fish and fish kills from non-pollutions causes (such as in-stream disturbance, drought/dry weather or poor fisheries management).

Fish kills due to pollution should be categorised and recorded under [Environment Management](#). Incident classification should be supported by Fisheries teams.

The response to fish kills caused by non pollution causes may be led by either EM or Fisheries depending on local arrangements. Non pollution causes include algal related dissolved oxygen problems, thermocline inversions and overstocking.

Take into account the ecological, conservation, social and economic impact in your response to the incident. These differ for different fish species and fisheries. You must consider all species whether they are exploited or not. You must consider impacts on fishing activity and guidance is given on this.

Pass all Fisheries incidents to area Fisheries teams as soon as possible, and certainly by the next working day.

Important! Illegal fishing with nets or during the closed season are likely to have at least a potential Category 2 impact and must be responded to immediately. See [Illegal fishing](#).

Impact on ecology – consult F&B teams

Refer to impact on [ecology](#) and consult area Fisheries and Biodiversity (F&B) teams whenever an incident may have impacted on ecology. Ecological incidents have been categorised by impact to [nature conservation](#) for protected sites and species, [physical habitat](#) for hydromorphological damage and [fish stocks](#). You must consider any implications under the [Environmental Damage Regulations](#). F&B must consult Analysis and Reporting teams for input on Water Framework Directive impacts.

Illegal fishing

Illegal fishing is defined as those offences against fisheries legislation that are enforced by the Environment Agency. Refer incidents of offences against the Theft Act **only** (taking or destroying fish by otherwise legal means) to the police. If an incident includes elements of Theft Act and Fisheries offences it must be classified according to the fisheries element of the offence. Close season fishing is classed as illegal fishing.

Important! You must consider any wider environmental impacts such as the incidental trapping of a European Otter or other protected species, and ensure that the relevant [conservation body is notified](#).

Only record unlicensed angling as an incident when reported by a non-Fisheries source, and not when detected by Fisheries Officers on patrol. Classify all other offences even if there has been no impact due to the action of an officer.

Illegal activities include:

- the use of set/hand lines, gaffs, spears and other illegal equipment;
- poisoning or explosives;
- setting illegal nets across estuaries, rivers or lakes;
- unconsented electro-fishing;
- fishing in the closed season;
- removing rod caught fish in contravention to fisheries byelaws;
- the sale of un-tagged salmon or sea trout.

Assess the impact based on the potential/actual impact to the fish population and fishery concerned and not the type of illegal fishing involved. The level of incident response must reflect the potential impact on fisheries and/or the wider environment, and area teams must respond accordingly.

Important! It is highly likely that reports of the deployment of illegal nets will result in a major impact (Category 1), and more than two people fishing during the closed season will result in at least a significant impact (Category 2). Potential Category 1 and 2 incidents must be responded to immediately (within 2 hours in hours / within 4 hours out of hours).

Fish mortality Assess fish kills using the [Fish kill assessment instruction 78_01](#).

The response to fish kills caused by non pollution causes may be led by either EM or Fisheries depending on local arrangements. Non pollution causes include algal related dissolved oxygen problems, thermocline inversions and overstocking.

To enable the reporting of dry weather and drought related incidents, you must select the appropriate cause from the picklist on the Fisheries screen in NIRS.

Important! For supplementary information on reporting incidents associated with drought, and how to complete NIRS, refer to [105_10 How to plan for and manage our response to drought](#).

Use your judgement when you assess the impact of the incident on a fishery. While numbers of fish are provided in the definition, the impact needs to be relevant to the water concerned (such as the river, lake or estuary affected); the loss of 100 fish in one river may be more significant than the loss of 1000 fish in another river.

Important! Ensure you consider any wider environmental impacts such as the mortality of non-fisheries fish species (refer to [Impact on nature conservation \(water\)](#)) and protected species (refer to [Impact on nature conservation](#)).

Fish disease Fish disease (and mortality from exotoxins) may not be obvious when an incident is first reported, although suspect a disease when only a single species is affected. Follow the same procedure as a response to fish mortality and if disease is the underlying cause reflect this in the final categorisation.

Incidents of fish disease will usually be passed from EM to Fisheries. On passing over the incident the receiving function must ensure completion of the NIRS record and that the incident is closed appropriately.

It is extremely unlikely that fish disease will be the known cause in the first instance of reporting. Respond immediately to reports of fish mortality. These guidelines are for the determination of the **final** incident categorisation.

Fish introductions (Section 30 and ILFA)

These are likely to involve reports of lorries or pickups with tanks on the back and parked next to a river or still water, and fish are observed being introduced.

Alert fisheries enforcement teams to the location as soon this type of situation has been reported. You will be unlikely to know at the time of reporting how serious an incident this may be. The definitions for each categorisation are listed to allow the correct classification of such an incident post-event.

All permitted introductions are consented and listed on the Live Fish Movements Database (LFMD); examine this before you determine your response. The potential for environmental damage is likely to be high where the introduction is not consented.

Methodology Identify which of the statements contained in each level definition best describes the incident details. The level assigned is the one where the highest selected criteria is listed. Use these categories when assessing the potential impact (to inform the appropriate level of response), and when assessing the final category of the actual environmental impact.

Consider each of these impact criteria when assigning the impact level. It is not possible to provide a definitive Tier 2 classification for every eventuality. Use this framework to interpret incidents that do not readily fall into a clear category or in circumstances that justify classifying outside this guidance.

For many illegal fishing, fish introduction and fish disease incidents, it will be difficult to anticipate the potential level of impact, especially where we have intervened to prevent or mitigate for the incident. The impact criteria below include the type of activity that is likely to cause a given level of impact.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major illegal fishing	<p>Illegal fishing likely to cause a major impact on fish population - refer to Impacts on fish stocks (this includes all fish species).</p> <p>Activities that could have a major impact on fish stocks and fisheries will include:</p> <ul style="list-style-type: none"> ▪ Fishing for salmon, trout, coarse fish, eel, lamprey or smelt with prohibited instruments (such as illegal nets, set lines and explosives) or fishing with legal nets/traps in a prohibited way (such as in closed times or areas); ▪ Rod and line captures (and death) of 5 or more adult migratory salmonids in any single incident before 16th June; ▪ Illegally removing coarse fish caught by rod and line by more than two anglers; ▪ The illegal or unauthorised trapping non-native crayfish where native crayfish populations are present or where trapping has killed/is likely to have killed native crayfish and/or other protected species (such as otters or water voles).
	Major damage to fish stocks from other causes	<ul style="list-style-type: none"> ▪ Major impact on fish population – refer to Impacts on fish stocks (this includes all fish species).
	Major fish disease	<ul style="list-style-type: none"> ▪ Outbreak or suspected outbreak of a notifiable disease, or confirmed detection of a notifiable disease agent such as <i>Gyrodactylus salaris</i>. ▪ Outbreaks of non-notifiable diseases, having a major impact on a fishery – refer to refer to Impacts on fish stocks (this includes all fish species). ▪
	Major illegal fish introductions	<ul style="list-style-type: none"> ▪ Section 30 offences (fish introduction), where the introduction of fish is into an open water (river, canal, on-line stillwater or stillwater in the floodplain). ▪ Unlicensed introduction of high risk non-native fish (Category 4 and 5 species listed in the Import of Live Fish Act Order).
	Major damage to physical habitat	Refer to Impacts on physical habitat (includes fish habitat and spawning fish).
	Major damage to nature conservation	<ul style="list-style-type: none"> ▪ Major adverse effect on a statutorily protected site or species or Water Framework Directive water body. <p>Refer to Impact on nature conservation sites and species.</p>
	Major impact on amenity value	<ul style="list-style-type: none"> ▪ Major impact on angling (or net fishing) activity, taking into account factors such as: the extent (km) of the fisheries affected; the number of lost fishing days (including cancellation or postponement of nationally important angling competitions); the relative importance of the fishery (nationally rather than locally important, size of club/number of permit sales); relative impact on the

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		<p>revenue to local fisheries and on the local economy (accommodation, tackle trade, etc); and the likely duration/extent of any longer term impacts on fishing quality, including where the reputation of local fisheries is affected.</p>
Category 2	Significant illegal fishing	<ul style="list-style-type: none"> ▪ Illegal fishing likely to cause significant impact on fish population - refer to Impacts on fish stocks (this includes all fish species). <p>Activities that could have a significant impact on fish stocks and fisheries will include:</p> <ul style="list-style-type: none"> ▪ Rod and line captures (and death) of fewer than 5 adult migratory salmonids in any single incident before 16th June; ▪ Untagged salmon and sea trout for sale; ▪ Illegally removing coarse fish caught by rod and line by one or two anglers; ▪ More than two anglers fishing during the close season. ▪ Illegal trapping for non-native crayfish or Chinese mitten crab with 5 or more traps, where native crayfish are not present.
	Significant damage to fish stocks from other causes	<ul style="list-style-type: none"> ▪ Significant impact on fish population – refer to Impacts on fish stocks (this includes all fish species).
	Significant fish disease	<ul style="list-style-type: none"> ▪ Outbreaks of disease having significant impact on a fishery - refer to Impacts on fish stocks (this includes all fish species).
	Significant illegal fish introductions	<ul style="list-style-type: none"> ▪ Unlicensed introduction of medium risk non-native species (Category 2 and 3 listed in the Import of Live Fish Act Order).
	Significant damage to physical habitat	<p>Refer to Impacts on physical habitat (includes fish habitat and spawning fish).</p>
	Significant damage to nature conservation	<ul style="list-style-type: none"> ▪ Significant damage to a statutorily protected site or species or Water Framework Directive water body. ▪ Extensive and /or significant damage to BAP species or habitats and non-statutory protected species. <p>Refer to Impact on nature conservation sites and species.</p>
	Significant impact on amenity value	<ul style="list-style-type: none"> ▪ Significant impact on local angling (or net fishing) activity, taking into account: the extent (km) of the fisheries affected; the number of lost fishing days (including cancellation or postponement of locally important angling competitions); the relative importance of the fishery (locally rather than nationally important, size of club/number of permit sales); relative impact on the revenue to local fisheries and on the local economy (accommodation, tackle trade, etc); and the likely duration/extent of any longer term impacts on fishing quality, including where the reputation of local fisheries is affected.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 3	Minor illegal fishing	<ul style="list-style-type: none"> Illegal fishing likely to cause a minor impact on fish population - refer Impacts on fish stocks (this includes all fish species). <p>Activities that could have a minor impact on fish stocks and fisheries will include:</p> <ul style="list-style-type: none"> Unauthorised fishing by otherwise legal methods for eel, elver, lamprey, smelt or crayfish; Unlicensed rod and line fishing.
	Minor damage to fish stocks from other causes	<ul style="list-style-type: none"> Minor impact on fish population - refer to Impacts on nature conservation sites and species, and fish stocks
	Minor fish disease	<ul style="list-style-type: none"> Outbreak of disease causing a minor impact upon the fishery.
	Minor illegal fish introductions	<ul style="list-style-type: none"> Section 30 offences in enclosed waters.
	Minor damage to physical habitat	<ul style="list-style-type: none"> Refer to Impacts on physical habitat (includes fish habitat and spawning fish).
	Minor damage to nature conservation	<ul style="list-style-type: none"> Very limited impact upon nature conservation or Water Framework Directive water body. <p>Refer to Impact on nature conservation sites and species.</p>
	Minor impact on amenity value	<ul style="list-style-type: none"> Very limited impact on angling or net fishing activity.
Category 4	No impact	<ul style="list-style-type: none"> Substantiated incident with no impact to fisheries.

Water Resources incidents

Introduction

Water Resource incidents are any incidents involving the quantity of a water resource associated with any source of supply as defined by section 221 of the Water Resources Act 1991. Incidents may be associated with:

- permitted or un-permitted abstractions or impoundments;
- a change in water course flow or groundwater levels due to drought or dry weather (with a predominantly water **quantity** and not **quality** impact):
- a loss of flow or level due to works within an aquifer, such as construction of and/or abstraction from wells and boreholes.

Environment Management teams lead the response to these incidents. Incidents occurring as a result of drought conditions should be notified to your regional drought co-ordinator.

Recording dry weather or drought related incidents

Assess and record any incident caused by prolonged dry weather or drought under the following schemes:

- Environment Management, if the impact is predominantly due to a reduction in the **quality** of water;
- Water Resources, if the impact is predominantly due to a reduction in the **quantity** of water.
- Fisheries, where Fisheries are leading the response.

To enable the reporting of dry weather and drought related incidents, you must answer “Was this incident cause by drought or dry weather?” on the Water Bodies screen in NIRS.

Important! For supplementary information on reporting incidents associated with drought, and how to complete NIRS, refer to [105_10 How to plan for and manage our response to drought](#).

Definition of water

‘Water’ includes surface water and groundwater which falls within the definition of source of supply under section 221 of the Water Resources Act 1991.

Impact on ecology – consult F&B teams

Assess the loss of a water resource in collaboration with other functions as it if may have serious effects on a watercourse. For example, toxicity levels may increase due to reduced dilution or flow enough to cause serious harm to aquatic life and/or oxygen levels may fall to critical levels for aquatic life.

Where groundwater resources are affected, the potential impact on receptors of groundwater baseflow must also be considered. These include nearby watercourses where groundwaters provide an important contribution to the flow, and terrestrial habitats that are dependent on groundwater (such as wetlands, fens, wet flushes, mires and bogs).

Refer to impact on [ecology](#) and consult area Fisheries and Biodiversity (F&B) teams whenever an incident may have impacted on ecology. Ecological incidents have been categorised by impact to [nature conservation](#) for protected sites and species, [physical habitat](#) for hydromorphological damage and [fish stocks](#). You must consider any implications under the [Environmental Damage Regulations](#). F&B must consult Analysis and Reporting teams for input on Water Framework Directive impacts.

Low flows and low stillwater levels can also impact on angling or net fishing fishing. Consult area F&B teams where an incident may have impact on fishing activity.

Impact on groundwater resource

Classify and record incidents affecting the quality of groundwaters under the Environment Management scheme in the following cases:

- Incident requiring the closure of a borehole, well or spring-fed abstraction due to pollution.
- Contamination of groundwater surface zone by pollution which results in potential pollution of groundwater.
- Contamination of a groundwater and the surface receptors of groundwater baseflow.

Classify other major incidents affecting the resource, rather than the quality of the resource, under Water Resources.

Reports of unlawful activity

Only record reports of unlawful activity as an incident when an environmental impact is actually taking place, or is likely to take place, if some form of immediate preventative action is not taken. Unlawful activities may include drilling of a borehole, construction of a weir/dam and abstracting water.

Methodology

Identify which of the statements contained in each level definition best describes the incident details. The level assigned is the one where the highest selected criteria is listed. Use these categories when assessing the potential impact (to inform the appropriate level of response), and when assessing the final category of the actual environmental impact.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
----------	----------	---

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Serious impact on surface water flow or level	<ul style="list-style-type: none"> Substantial or complete loss of river, stream or canal flow or level. <ul style="list-style-type: none"> 'Substantial' means an abnormal effect which occurs over several km of a watercourse or a large area of a still water. As a guide use 1-2 kilometres, but some subjectivity may be applied, for example a major deterioration in flow or level over half a kilometre on a large important river such as the lower Severn or Thames would certainly be a Category 1 incident. Effects would generally be evident or likely to be evident at least 7 days from the date of the incident. This does not include minor impacts where a reduction in level or flow, even over several kilometres, had little impact on the health of the watercourse.
	Serious impact on groundwater resource	<ul style="list-style-type: none"> Substantial or complete loss of groundwater resource. <ul style="list-style-type: none"> For example, drilling through a perched aquifer causing loss of resource.
	Persistent and/or extensive effects on water quality	<ul style="list-style-type: none"> A persistent and/or extensive effect on water quality which has a serious effect on the quality or use of that water. <ul style="list-style-type: none"> 'Persistent' means an effect is still in evidence or likely to be evident at least 7 days from the date of the incident. 'Extensive' means an effect over several kilometres of a watercourse or a large area of a still water. As a guide use 1-2 kilometres, but some subjectivity may be applied. For example, a major deterioration in water quality over half a kilometre on a large important river (such as the lower Severn or Thames) would be a Category 1 incident. 'Serious' effects include dissolved oxygen levels falling to critical levels for aquatic life. It would not include minor impacts such a slight drop in dissolved oxygen levels even if they extend over several kilometres. Apply Category 1 where damage would lead to a deterioration in status of a Water Framework Directive water body (this has implications under the Environmental Damage Regulations).
	Major damage to aquatic or groundwater dependent nature conservation	<ul style="list-style-type: none"> Major adverse effect on a statutorily protected site or species or Water Framework Directive water body. Refer to Impact on nature conservation sites and species for guidance. Destruction or major damage to a fish population or habitat. Refer to Impact on nature conservation (water).
	Major damage to physical habitat	Refer to Impacts on physical habitat (includes fish habitat).
	Major damage to fish stocks	Refer to Impacts on fish stocks (includes all fish species).
	Major effect on	<ul style="list-style-type: none"> Major adverse effect on an important recreational activity or

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
	amenity value	<p>national event or important site.</p> <ul style="list-style-type: none"> ▪ For example, cancellation or postponement of boating activity such as Henley Regatta. Or results in a high visual impact which at a nationally important site. ▪ Major impact on angling (or net fishing) activity, taking into account factors such as: the extent (km) of the fisheries affected; the number of lost fishing days (including cancellation or postponement of nationally important angling competitions); the relative importance of the fishery (nationally rather than locally important, size of club/number of permit sales); relative impact on the revenue to local fisheries and on the local economy (accommodation, tackle trade, etc); and the likely duration/extent of any longer term impacts on fishing quality, including where the reputation of local fisheries is affected.
	Major loss of water supply / Major damage to agriculture or commerce	<ul style="list-style-type: none"> ▪ Total loss of water supplies to one or more large or several small licensed (or exempt) abstractors. <ul style="list-style-type: none"> ▪ As a guide, large abstractions would generally be considered to be greater than 1Ml/d. There may be occasions when the impact is such that abstractions below this figure may be considered as a Category 1 impact. Small abstractions would generally be five or more abstractors or cumulatively the effect is greater than 1 Ml/d. ▪ Serious operational or financial damage or serious health and safety issues caused to important industrial, commercial, potable abstraction or agricultural activity by loss of supply. <ul style="list-style-type: none"> ▪ For example, the loss of manufactured product at an industrial premises, long-term interruption of production (a day as a guide), loss of abstraction for public water supplies, or failure of crops in the longer term. ▪ Major impact on other important lawful uses such as British Waterways intakes or Crown Exempt abstractions caused by loss of supply.
Category 2	Significant impact on surface water flow or level	<ul style="list-style-type: none"> ▪ Significant loss of river, stream or canal flow or level. <ul style="list-style-type: none"> ▪ Usually involving effects over several kilometres, however, serious effects on flows or levels will generally be localised (such as immediately downstream of a major impoundment). ▪ Effects would generally be in evidence for less than 7 days from the date of the incident.
	Significant impact on groundwater resource	<ul style="list-style-type: none"> ▪ Significant loss of groundwater resource. <ul style="list-style-type: none"> ▪ Generally of a more local nature than a category 1 incident.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
	Significant effect on water quality	<ul style="list-style-type: none"> ▪ Significant but normally localised effect on water quality which has a significant impact on the quality or use of that water. ▪ Serious effects due to reductions in level or flow will generally be localised. For example, low dissolved oxygen levels along the length of a small stream or alternatively up to a couple of hundred meters in a larger water body.
	Significant damage to aquatic or groundwater dependent nature conservation	<ul style="list-style-type: none"> ▪ Damage to a statutorily protected site or species or Water Framework Directive water body. ▪ Extensive and/or significant damage to BAP species or habitats and non-statutory protected species. <p>Refer to Impact on nature conservation sites and species for guidance.</p> <ul style="list-style-type: none"> ▪ Significant damage to a fish population or habitat. Refer to Impact on nature conservation (water).
	Significant damage to physical habitat	Refer to Impacts on physical habitat (includes fish habitat).
	Significant damage to fish stocks	Refer to Impacts on fish stocks (includes all fish species).
	Significant effect on amenity value	<ul style="list-style-type: none"> ▪ Significant adverse effect on a recreational activity or event appropriate to the watercourse or still water affected. <ul style="list-style-type: none"> ▪ For example, cancellation of a local recreational event or activity. Or results in a high visual impact at a regionally important site. ▪ Significant impact on local angling (or net fishing) activity, taking into account: the extent (km) of the fisheries affected; the number of lost fishing days (including cancellation or postponement of locally important angling competitions); the relative importance of the fishery (locally rather than nationally important, size of club/number of permit sales); relative impact on the revenue to local fisheries and on the local economy (accommodation, tackle trade, etc); and the likely duration/extent of any longer term impacts on fishing quality, including where the reputation of local fisheries is affected.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
	Significant loss of water supply/ Significant damage to agriculture or commerce	<ul style="list-style-type: none"> ▪ Total loss of water supply to one or more small licensed or exempt abstractors. <ul style="list-style-type: none"> ▪ As a guide, small abstractions would generally be considered to be less than 1 Ml/d either individually or cumulatively if several abstractors are affected. ▪ Notable operational or financial damage caused to smaller industrial, commercial, potable abstraction or agricultural activity by loss of supply. <ul style="list-style-type: none"> ▪ For example, the partial loss of manufactured product at an industrial premises, short-term interruption of production (several hours as a guide), loss of smaller abstractions for public water supplies or the partial failure of crops in the longer term. ▪ Significant impact on other lawful uses such as domestic and agricultural abstractors caused by loss of supply.
Category 3	Minimal impact on surface water flow or level	<ul style="list-style-type: none"> ▪ Minor loss of river, stream or canal flow or level. <ul style="list-style-type: none"> ▪ Usually affecting a short distance and effects on flows or levels generally be localised. For example, non-compliance of 'Hands Off' conditions which generate local complaints ▪ Duration of effect is unlikely to extend beyond 1 or 2 days.
	Minor impact on groundwater resource	<ul style="list-style-type: none"> ▪ Minor disruption or loss of minor groundwater resource.
	Minimal impact on water quality	<ul style="list-style-type: none"> ▪ Limited and localised effect on water quality which has a minimal impact on the quality or use of that water.
	Minor damage to aquatic or groundwater dependent nature conservation	<ul style="list-style-type: none"> ▪ Very limited impact upon nature conservation or Water Framework Directive water body. Refer to Impact on nature conservation sites and species.
	Minor damage to physical habitat	Refer to Impacts on physical habitat (includes fish habitat).
	Minor damage to fish stocks	Refer to Impacts on fish stocks (includes all fish species).
	Minor impact on amenity value	<ul style="list-style-type: none"> ▪ Minor impact on amenity value, fishing activity and/or aesthetic quality. <ul style="list-style-type: none"> ▪ For example, minor disruption to a local recreational event or activity, or a localised visual impact.
	Minor loss of water supply / Minor damage to agriculture or commerce	<ul style="list-style-type: none"> ▪ Partial loss of water supply to one or more small licensed or exempt abstractors or households. <ul style="list-style-type: none"> ▪ Abstraction is still likely to be taking place albeit at a reduced rate. ▪ Minor operational or financial damage caused to smaller industrial, commercial, potable abstraction or agricultural

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		<p>activity by loss of supply.</p> <ul style="list-style-type: none"> ▪ For example, the partial loss of manufactured product at an industrial premises, loss of smaller abstractions for public water supplies or the partial failure of crops in the longer term. ▪ Minor impact on other lawful uses such as domestic and agricultural abstractions caused by loss of supply.
Category 4	No impact	<p>Substantiated incident with no impact:</p> <ul style="list-style-type: none"> ▪ no impact on flow or level of a watercourse; ▪ no impact on groundwater resource; ▪ no impact on water quality; ▪ no damage to nature conservation, physical habitat or fish stocks; ▪ no impact on amenity value, including fishing activity; ▪ no loss of water supply or damage to agriculture/commerce.

Waterways incidents

Definition of a waterways incidents

In supplement to the [definition of an incident](#), a waterways incident includes:

‘Any incident that occurs on a waterway where we are the competent authority for navigation and has the potential to, or is impacting on people, property or the environment.’

Impact on people includes where the right of navigation or its use is affected.

Examples of incidents include the sinking of a vessel, a collision with a bridge, or works on the waterway that affect a conservation area.

To enable the reporting of dry weather and drought related incidents, you must answer “Was this incident cause by drought or dry weather?” on the Craft Registration screen in NIRS.

Telemetry alarms

Only record telemetry alarms related to structures and waterways we operate as incidents if there is a need to deploy non-routine resources to investigate further or another non-routine operational response is made.

When to record a navigation offence as an incident

Record navigation offences as incidents (however reported) when an environmental impact is actually taking place, or is likely to take place, if some form of immediate preventative action is not taken. An environment impact includes impact on people, property or the environment. Set reports already logged onto NIRS as ‘not within our remit’ where this criteria is not met.

Recording multi-functional incidents

When waterways related incidents also result in environmental impacts involving other functions (such as pollution from oil, silt or chemicals), the highest environmental impact will indicate the lead function. The lead function must record the incident on NIRS. Refer to [Methodology – type of incident](#).

If Environment Management is leading the response, any costs incurred by Waterways and any enforcement action related to navigation offences must be recorded on the Environment Management NIRS record.

If Waterways is leading the response, any costs incurred by Environment Management, and any recharge or enforcement action related to pollution offences must be recorded on the Waterways NIRS record.

Recording incidents of human injury

Only record an injury or loss of life as an incident on NIRS where the event has an impact on the navigation of the waterway or involves a navigation offence. Set reports already logged onto NIRS as ‘not within our remit’ where this criteria is not met.

Investigate all incidents involving injury or loss of life associated with one of our structures through SHERMS, and refer to this in the NIRS record where appropriate.

Impact on ecology – consult F&B teams

Refer to impact on [ecology](#) and consult area Fisheries and Biodiversity (F&B) teams whenever an incident may have impacted on ecology. Ecological incidents have been categorised by impact to [nature conservation](#) for protected sites and species, [physical habitat](#) for hydromorphological damage and [fish stocks](#). You must consider any implications under the [Environmental Damage Regulations](#). F&B must consult Analysis and Reporting teams for input on Water Framework Directive impacts.

Methodology

Identify which of the statements contained in each level definition best describes the incident details. Assign the level where the highest selected criteria is listed. Use these categories when assessing the potential impact (to inform the appropriate level of response), and assessing the final category of the actual environmental impact.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Serious effect on human health	<ul style="list-style-type: none"> ▪ Fatality or serious injury (such as loss of limb) to any person using the waterway or associated structure, involving: <ul style="list-style-type: none"> ▪ fire or explosion aboard a vessel; ▪ sinking of a vessel; ▪ navigation offence.
	Major impact on navigation	<ul style="list-style-type: none"> ▪ Closure of the waterway at a location that is highly popular or locally important at a time of high usage such as regattas, events, school holidays, summer weekends or bank holidays as a result of, for example: <ul style="list-style-type: none"> ▪ failure of an Environment Agency structure; ▪ failure of non-Environment Agency structure; ▪ sinking of a vessel; ▪ obstruction (such as a car or tree); ▪ low water levels due to vandalism or any other unauthorised action, or natural causes. ▪ Cancellation of a national navigation event on a waterway as a result of a failure of an Environment Agency structure.
	Major impact on amenity	<ul style="list-style-type: none"> ▪ Closure of Environment-Agency operated recreational facility impacting on amenity value other than the right to navigation (such as walking, bird watching, fishing) as a result of, for example: <ul style="list-style-type: none"> ▪ failure of an Environment Agency structure ▪ failure of non-Environment Agency structure ▪ vandalism. ▪ NB: Disruption will be at a site that is highly popular or locally important. ▪ Major impact on angling (or net fishing) activity, taking into account factors such as: the extent (km) of the fisheries affected; the number of lost fishing days (including cancellation or postponement of nationally important angling competitions); the relative importance of the fishery (nationally rather than locally important, size of

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		club/number of permit sales); relative impact on the revenue to local fisheries and on the local economy (accommodation, tackle trade, etc); and the likely duration/extent of any longer term impacts on fishing quality, including where the reputation of local fisheries is affected.
	Major damage to property	<ul style="list-style-type: none"> ▪ Major damage to more than one property or vessel as a result of: <ul style="list-style-type: none"> ▪ failure of an Environment Agency structure ▪ fire or explosion aboard a vessel ▪ a navigation offence.
	Major damage to nature conservation	Refer to Impact on nature conservation sites and species .
	Major physical habitat damage	Refer to Impacts on physical habitat (includes fish habitat).
	Major damage to fish stocks	Refer to Impacts on fish stocks (includes all fish species).
Category 2	Significant effect on human health	<ul style="list-style-type: none"> ▪ Significant injury (usually involving the need to go to hospital) to any person using the waterway or associated structure, involving: <ul style="list-style-type: none"> ▪ fire or explosion aboard a vessel ▪ sinking of a vessel ▪ navigation offence.
	Significant impact on navigation	<ul style="list-style-type: none"> ▪ Partial restriction or short lived disruption of the waterway at a location that is highly popular or locally important at a time of high usage such as regattas, school holidays, summer weekends or bank holidays from, for example: <ul style="list-style-type: none"> ▪ failure of an Environment Agency structure ▪ failure of non-Environment Agency structure ▪ sinking of a vessel ▪ obstruction (such as a car or tree) ▪ low water levels due to vandalism or any other unauthorised action. ▪ Closure of the waterway at a time when it is not of high usage or highly popular or locally important for example out of boating season ▪ Cancellation of a local navigation event on a waterway as a result of a failure of an Environment Agency structure.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
	Significant impact on amenity	<ul style="list-style-type: none"> ▪ Significant restriction in use of Environment-Agency operated recreational facility impacting on amenity value other than the right to navigation (such as walking or bird watching) as a result of, for example: <ul style="list-style-type: none"> ▪ failure of an Environment Agency structure ▪ failure of non-Environment Agency structure ▪ vandalism. ▪ Significant impact on local angling (or net fishing) activity, taking into account: the extent (km) of the fisheries affected; the number of lost fishing days (including cancellation or postponement of locally important angling competitions); the relative importance of the fishery (locally rather than nationally important, size of club/number of permit sales); relative impact on the revenue to local fisheries and on the local economy (accommodation, tackle trade, etc); and the likely duration/extent of any longer term impacts on fishing quality, including where the reputation of local fisheries is affected.
	Significant damage to property	<ul style="list-style-type: none"> ▪ Significant damage to property or a vessel as a result of: <ul style="list-style-type: none"> ▪ failure of an Environment Agency structure; ▪ fire or explosion aboard a vessel; ▪ a navigation offence.
	Significant damage to nature conservation	Refer to Impact on nature conservation sites and species .
	Significant physical habitat damage	Refer to Impacts on physical habitat (includes fish habitat).
	Significant damage to fish stocks	Refer to Impacts on fish stocks (includes all fish species).
Category 3	Minimal effect on human health	<ul style="list-style-type: none"> ▪ Minor injury to any person using the waterway due to navigation offence or use/operation of Environment Agency structure.
	Minor impact on navigation	<ul style="list-style-type: none"> ▪ Sinking of a vessel in the waterway that does not result in a hazard to the navigation of vessels. ▪ Minor obstruction of the waterway from, for example: <ul style="list-style-type: none"> ▪ failure of an Environment Agency structure ▪ failure of non-Environment Agency structure ▪ deposit of an object (such as a car or tree). ▪ Postponement of a local navigation event on a waterway.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
	Minor impact on amenity	<ul style="list-style-type: none"> ▪ Minor impact on use of Environment-Agency operated recreational facility impacting on amenity value other than the right to navigation (such as walking or bird watching) as a result of, for example: <ul style="list-style-type: none"> ▪ failure of an Environment Agency structure; ▪ failure of non-Environment Agency structure; ▪ vandalism. ▪ Minor impact on angling (or net fishing) activity.
	Minor damage to property	<ul style="list-style-type: none"> ▪ Minor damage to property or a vessel as a result of: <ul style="list-style-type: none"> ▪ failure of an Environment Agency structure; ▪ fire or explosion aboard a vessel; ▪ a navigation offence.
	Minor damage to nature conservation	Refer to Impact on nature conservation sites and species .
	Minor physical habitat damage	Refer to Impacts on physical habitat (includes fish habitat).
	Minor damage to fish stocks	Refer to Impacts on fish stocks (includes all fish species).
Category 4	No impact	<ul style="list-style-type: none"> ▪ No impact on human health. ▪ A deposit resulting in no hazard/obstruction to navigation. ▪ No impact on amenity value. ▪ No damage to property. ▪ No damage to nature conservation, physical habitat or fish stocks.

Flood and Coastal Risk Management incidents

Introduction

Flood and Coastal Risk Management (FCRM) are responsible for responding to incidents related to potential or actual flooding, and potential or actual damage to nature conservation sites and species. This includes:

- actual or potential flooding, or damage to nature conservation or physical habitat, from land drainage works (including works we carry out) on main rivers and where regional bylaws apply;
- any report of flooding from rivers, tidal activity or rising groundwater;
- forecasted or actual rainfall, tidal activity, or rising groundwater that requires a warning or reactive work because it may cause flooding;
- any of the following that could cause or actually result in flooding:
 - an obstruction or blockage on a main river (requiring non-routine maintenance if observed when on site);
 - a damaged or failed asset (may be indicated by a telemetry alarm);
 - a failing reservoir.

The following are examples of reports which are not incidents, but may be our business:

- request for maintenance work on our assets such as grass cutting and overgrown nettles;
- vegetation in the watercourse which is visually offensive but is not causing a flooding risk;
- reports of asset damage or vandalism to our assets which do not present a risk of flooding;
- complaints regarding trees on our land causing a nuisance (such as blocking the view or TV signal)
- assets which cannot be operated, when there is no potential for flooding (for example, a rotten stop log during dry weather);
- natural bank erosion which is near/undermining an asset but does not present a risk of flooding.

Recording multi-functional incidents on NIRS

Incidents related to flooding or land drainage works can result in environmental impacts involving other functions (such as pollution from oil, silt, chemicals or sewage and damage to protected sites and species). The highest environmental impact will usually indicate the lead function and which screen to record it under on NIRS. Refer to [Methodology – type of incident](#).

For flooding incidents this will normally be FCRM. For incidents related to land drainage works this will normally be:

- FCRM if the most serious impact involves flood risk, or it involves damage to nature conservation or physical harm from an activity regulated by FRCM (that is, works on main river or within regional bylaws);
 - Environment Management if the most serious impact is related to pollution of surface waters or physical harm from an activity that is not regulated by FCRM. (Note that this does not include damage to nature conservation as we are not the responsible authority for works on non-main rivers).
-

Consent infringements and enforcement

Breaches of flood defence consents

Record a breach of a flood defence consent as an incident on NIRS when an environmental impact ([as defined below](#)) is actually taking place, or requires action (by us or the operator) to prevent an imminent impact.

We may need to reassess previous observations as incidents if conditions change and an environmental impact occurs or becomes imminent.

Un-consented land drainage works

Record un-consented works as incidents on NIRS when an environmental impact ([as defined below](#)) is actually taking place, or requires action (by us or the operator) to prevent an imminent impact.

These works must fall under items that may normally be consented by the Environment Agency under s105 of the Water Resources Act 1991, s23 of the Land Drainage Act 1991 and regional bylaws.

Take into account any case which may impact upon other environmental factors, such as wildlife, conservation and fisheries, when making decisions to rectify un-consented FCRM related works.

We may need to reassess previous observations as incidents if conditions change and an environmental impact occurs or becomes imminent.

Impact on ecology – consult F&B teams

Refer to impact on [ecology](#) and consult area Fisheries and Biodiversity (F&B) teams whenever an incident may have impacted on ecology. Ecological incidents have been categorised by impact to [nature conservation](#) for protected sites and species, [physical habitat](#) for hydromorphological damage and [fish stocks](#). You must consider any implications under the [Environmental Damage Regulations](#). F&B must consult Analysis and Reporting teams for input on Water Framework Directive impacts.

Note: Land drainage works may cause damage to nature conservation through direct action (such as bank damage) or indirect action (such as from flooding or low flows). The incident may have been caused by our [own workforce](#), or by contractors operating on our behalf. Ensure these are recorded on NIRS.

Flooding incidents

Definition of a flooding incident

In supplement to the [definition of an incident](#), a flooding incident includes:

‘Potential or actual flooding caused by severe weather, tidal conditions and/or the obstruction, failure, breach or damage of a flood defence or asset, and/or the building of a structure.’

An incident can either happen in a single location or in multiple locations at the same time or sequentially.

Definition - explanatory notes

- **Flooding** means when water does not remain within the constraints of river channels or coastlines, within the water table, and when surface water floods from drains which are unable to discharge into swollen rivers.
 - **Potential flooding** means there is a genuine risk that flooding is about to occur, or could occur imminently. Imminently means within the short term, and generally within seven days. If reactive work is required in under seven days, due to the potential for flooding, then the report is likely to be an incident. Base the potential impact on the weather forecast (recent and predictive), type of flood risk system/risk of escalation, nature of catchment, and likelihood of water backing up and overtopping.
 - **Actual flooding** means the environment is currently being affected by flood waters.
 - Single location incidents usually take place without any notice and when river/sea levels are within normal limits. Flooding in multiple locations usually takes place when the weather or tidal conditions deteriorate and the river or sea levels rise. Assess all incidents using CICS and record them collectively if they relate to the same event (see [Recording multiple location flooding incidents](#)).
-

Public reports of potential flooding

We will record all public reports of potential flooding from main rivers. Such reports will usually be 'single location incidents' such as a report of a blockage, obstruction or damaged asset. Set reports as duplicates on NIRS if they concern the same issue or relate to the same event (see [Recording multiple location flooding incidents](#)).

The Competent officer will assess the imminent potential impact using CICS. Reports that have no imminent potential for flooding will be assessed as potential Category 4 incidents.

For unattended incidents, consider scheduling preventative work into our maintenance schedule if there is a longer-term potential for a significant impact. Set as 'not attended' on NIRS and record in the details section if work is to be programmed into the maintenance schedule (refer to the job reference/work number if used).

Work which has been scheduled into the work program which then requires non-routine maintenance to prevent imminent flooding, due to a change in circumstances (such as deterioration in weather) should be entered as new incidents on NIRS.

Public reports of actual flooding

ICS will record all public reports of actual flooding from all types of watercourse, the sea and groundwater, on NIRS.

This includes flooding in locations where we do not respond (that is, operate assets or issue flood warnings) as we still have an interest and need to maintain a complete overview of the event. The Competent officer will usually set reports of flooding from non-main river as 'not agency business' as currently defined within NIRS.

Set reports as duplicates on NIRS if they relate to an incident which has already been recorded (see [Recording multiple location flooding incidents](#)).

Flooding incidents not within our remit

The following reports, which are not within our remit, will not be assessed using CICS or recorded on NIRS:

- flooding from burst water mains (unless causing a pollution);
- flooding from sewers when it hasn't been raining (for example, when the discharge is not due to swollen rivers);
- reports of damage, obstructions and blockages on non-Environment Agency structures, non-main rivers, and British Waterway canals;
- fly-tipping or dead carcasses which do not pose a flood risk, or are found in/near ordinary watercourses (refer to the Fly-tipping protocol, if there is a pollution risk refer to Environment Management).

Record these as 'not within agency remit' on NIRS if ICS have already logged the report as a potential incident.

Operational telemetry alarms

Assess an event leading to the generation of a telemetry alarm on an operational structure as an incident if it could indicate actual or imminent flooding and there is a need to investigate or respond.

Record these as an incident on NIRS if a record for a related incident has not already been recorded (see [Recording multiple location flooding incidents](#)).

Observations during routine visits

Obstructions, blockages or asset damage observed during routine maintenance work or asset inspections may be incidents. Assess and record these as incidents if flooding is actually taking place, or if non-routine maintenance is required to prevent imminent flooding.

Non-routine maintenance means work which is likely to disrupt our planned programme, require additional visits, need extra staff, or special equipment. The work is likely to be prioritised as urgent/emergency works.

We may need to reassess previous observations as incidents if conditions change and flooding occurs or becomes imminent. Proactive management in response to an increased risk of flooding is an incident and should be assessed and recorded as such; for example the non-routine clearance of screens in response to a weather forecast.

Recording multiple location flooding incidents

- Multiple location flooding incidents usually start when:
 - forecasted or actual rainfall or tidal activity requires us to issue a warning; or
 - forecasted or actual rainfall or tidal activity requires reactive work because of the increased risk of flooding; or
 - we receive reports of actual flooding.

Only record forecasted events and weather warnings as incidents if there is a decision to operate and clear our assets, issue a warning, or make any other operational response.

- Record the potential impact once on NIRS (for the first incident reported or identified) but assess all additional reports using CICS. Record reports under the same NIRS record if they relate to the same incident (such as, the same rainfall event) and are within the same river catchment (usually the field team area). Record collectively by field team area if several small

Recording multiple location flooding incidents continued..

catchments are covered. Record collectively by flood incident duty team operational boundary if river catchment is not appropriate (for example during coastal flooding events).

- Set NIRS reports forwarded by ICS as duplicates of the original record if they relate to the same event. Add significant information regarding additional incidents identified internally (such as telemetry alarms and staff observations) to the details section of the NIRS report.
- Where the incident results in a significant number of calls, record these on NIRS as duplicates until no longer feasible. At this point, keep a log and reflect this in the incident record. Agree with ICS how calls will be managed.

Environmental impact of FCRM incidents

Methodology

Identify which of the statements contained in each level definition best describes the incident details. The level assigned is the one where the highest selected criteria is listed. Use these categories when assessing the potential impact (to inform the appropriate level of response), and when assessing the final category of the actual environmental impact.

Definition of a flooded property

- A property (residential, commercial or industrial building) is considered to be flooded once flood water has inundated through the lowest point of entry (such as an air brick), or internal damage has been caused to the property by external flooding (such as, water has entered bricks above the damp proof course).
- The property will be considered as flooded if the garage is flooded and is attached to a property.
- Flooding above floor level means where water has risen to within 300mm of the ground floor level, as water may enter properties above damp proof courses and airbricks which are situated below ground level.
- Flooding below floor level means flooding of basements and cellars which are not classified as living spaces and below suspended floors.

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
Category 1	Major flooding to property and infrastructure	<ul style="list-style-type: none"> ▪ At least 100 properties (including homes, businesses and caravans) flooded above floor level in the same distinct area. ▪ Flooding of public and emergency buildings (such as hospitals, schools, police and fire stations) and other strategically important buildings which subsequently stop functioning. ▪ Emergency response by Police, fire, ambulance service and local authorities is significantly impaired due to flooding affecting access or equipment. ▪ Flooding and closure of motorways and/or major trunk roads. Major trunk roads are those built and maintained by the Highways Agency in England (see Highways Agency website for map of network) and

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		<p>Welsh Assembly Government in Wales.</p> <ul style="list-style-type: none"> ▪ Flooding and closure of major rail networks closed. Major rail networks are those connecting major towns and cities such as the east coast main line or large parts of the underground network. ▪ Utility supplies unavailable (such as water, electricity and gas) to at least 100 properties.
	Serious impact on people	<ul style="list-style-type: none"> ▪ Fatality, serious injury (such as a loss of limb) and danger to life due to depth, velocity or route of flowing waters. 5cm of fast flowing water is enough to knock a person off their feet. 120cm of water is enough to move large vehicles and other large objects. ▪ Large numbers of people stranded, including those who usually live outside the affected area (such as commuters or people on holiday from other parts of the country). ▪ Large public gatherings cancelled (such as sports fixtures and concerts).
	Major damage to nature conservation	Major damage to nature conservation from flooding or land drainage works. Refer to Impact on nature conservation sites and species .
	Major physical habitat damage	<ul style="list-style-type: none"> ▪ Major habitat damage from flooding or land drainage works. <p>Refer to Impacts on physical habitat (includes fish habitat).</p>
	Major damage to fish stocks	<ul style="list-style-type: none"> ▪ Major damage to fish stocks from flooding or land drainage works. <p>Refer to Impacts on fish stocks (includes all fish species).</p>
	Major impact on amenity	<ul style="list-style-type: none"> ▪ Major impact on angling (or net fishing activity), taking into account factors such as: the extent (km) or the fisheries affected; the number of lost fishing days (including cancellation or postponement of nationally important angling competitions); the relative importance of the fishery (nationally rather than locally important, size of club/number of permit sales); relative impact on the revenue to local fisheries and on the local economy (accommodation, tackle trade, etc); and the likely duration/extent of any longer term impacts on fishing quality, including where the reputation of local fisheries is affected.
Category 2	Significant flooding to property and infrastructure	<ul style="list-style-type: none"> ▪ 1-99 properties (including homes, businesses and caravans) flooded above floor level in the same distinct area. ▪ Flooding of busy A and B roads which cuts off roads and/or restricts vehicles travelling between communities, resulting in the extension of journey times by more than 30 minutes and affecting the emergency response. ▪ Flooding of low lying rail lines, and a small number of above ground or underground stations, affecting local journeys. ▪ Utility supplies intermittently affected (including water,

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		electricity and gas).
	Significant impact on people	<ul style="list-style-type: none"> ▪ Significant injury (usually involving the need to go to hospital) or effect on human health due to depth, velocity or route of flood waters. ▪ Small numbers of people stranded, including those who usually live outside the affected area (such as, commuters or people on holiday from other parts of the country). ▪ Major tourist or recreational attractions (including museums, seaside towns, and theme parks) flooded or inaccessible and/or local public gatherings cancelled (such as fireworks displays, local concerts, and local sports events).
	Significant damage to nature conservation	<ul style="list-style-type: none"> ▪ Significant damage to nature conservation from flooding or land drainage works. Refer to Impact on nature conservation sites and species .
	Significant physical habitat damage	<ul style="list-style-type: none"> ▪ Significant habitat damage from flooding or land drainage works. Refer to Impacts on physical habitat (includes fish habitat).
	Significant damage to fish stocks	<ul style="list-style-type: none"> ▪ Significant damage to fish stocks from flooding or land drainage works. Refer to Impacts on fish stocks (includes all fish species).
	Significant impact on amenity	<ul style="list-style-type: none"> ▪ Significant impact on local angling (or net fishing) activity, taking into account: the extent (km) of the fisheries affected; the number of lost fishing days (including cancellation or postponement of locally important angling competitions); the relative importance of the fishery (locally rather than nationally important, size of club/number of permit sales); relative impact on the revenue to local fisheries and on the local economy (accommodation, tackle trade, etc); and the likely duration/extent of any longer term impacts on fishing quality, including where the reputation of local fisheries is affected.
Category 3	Minor flooding to property and infrastructure	<ul style="list-style-type: none"> ▪ Flooding to below floor level of homes (including garden sheds and detached garages) and businesses, and/or caravan sites inaccessible. ▪ Flooding of minor roads, including A (non-trunk roads), B, C and unclassified roads. ▪ Flooding of farmland (arable and pasture).
	Minor impact on people	<ul style="list-style-type: none"> ▪ Minor injury or minimal effect on human health associated with flooding. ▪ Flooding of and/or access restricted to recreational land, gardens and parks.
	Minor damage to nature conservation	<ul style="list-style-type: none"> ▪ Very limited impact to nature conservation from flooding or land drainage works. Refer to Impact on nature conservation sites and species. ▪ Flooding of natural habitats and protected areas (such as SACs, SPA and SSSI). Flooding of natural habitats

Category	Criteria	Definition and guidance on impact criteria (one or more definition or criteria are met)
		<p>is a natural process to which they should recover, and is usually a Category 3 impact. The impact may increase if a pollutant is present in the flood waters.</p> <ul style="list-style-type: none"> ▪ Minor loss of fish habitat due to land drainage works. Refer to Impact on nature conservation (water).
	Minor physical habitat damage	<ul style="list-style-type: none"> ▪ Minor habitat damage from flooding or land drainage works. <p>Refer to Impacts on physical habitat (includes fish habitat).</p>
	Minor damage to fish stocks	<ul style="list-style-type: none"> ▪ Minor damage to fish stocks from flooding or land drainage works. <p>Refer to Impacts on fish stocks (includes all fish species).</p>
	Minor impact on amenity	<ul style="list-style-type: none"> ▪ Minor impact on angling (or net fishing) activity.
Category 4	No impact	<ul style="list-style-type: none"> ▪ No flooding is observed either because it did not happen or because our actions prevented it. ▪ No impact on nature conservation, physical habitat or fish stocks either because it did not happen or because our actions prevented it from happening.

Related documents

Links

- [491_09 Reporting, managing, reviewing and learning from internal environmental incidents and near misses](#)
 - [181_04 Targets for completing NIRS records](#)
 - [196_07 Fulfilling our duties for nature conservation: summary of legal requirements for functions to screen activities and applications](#)
 - [59_09 Environmental Damage \(Prevention and Remediation\) Regulations](#)
 - [134_07 Notification of pollution incidents affecting human health to Public Health England \(PHE\)](#)
 - [78_01 Fisk kill assessment instructions](#)
 - [16_02 Recording and categorising water industry and operator reported pollution incidents](#)
-

Appendix 1 – Impact Assessment

We have assessed the impact of changes in this version (v12) on incident classification as follows:

CICS section	Change	Impact
Environment Management - Impact on Potable Abstraction	Amended impact criteria to allow for more accurate assessment of the impact of an incident affecting potable abstractions based on the ability to supply water.	Fewer Category 1 and 2 Environment Management incidents will be recorded.