

# How to prepare and publish Pollution Incident Reduction Plans and associated Implementation Reports

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# 1 About the guidance

Pollution incidents lead to the release of harmful substances into air, land or water, and some can cause significant harm to the environment. The number of pollution incidents caused by water companies, and resulting in environmental impact, remains unacceptably high. We all want a better environment, including cleaner rivers, seas, estuaries and groundwater and water companies need to take responsibility to tackle their specific performance issues that lead to pollution of the environment.

The government has introduced a new statutory requirement for water companies to publish annual plans, called Pollution Incident Reduction Plans (PIRPs), to increase transparency about the steps they are taking to address these performance issues, reduce pollution incidents and their impact on the environment. The following guidance explains to water companies what they need to do to comply with this new statutory requirement.

The [Water \(Special Measures\) Act 2025](#) has inserted provisions into the [Water Industry Act 1991](#) (referred to as the Act in this guidance) requiring the preparation and publication of Pollution Incident Reduction Plans (PIRPs) and associated Implementation Reports by each relevant undertaker.

In PIRPs, relevant undertakers must:

- review the measures that are currently in place and resulting pollution incidents attributable to their system over the preceding calendar year
- explain how they will reduce the occurrence of pollution incidents that are attributable to their system in the next calendar year

In Implementation Reports, relevant undertakers must assess the extent to which they have succeeded or failed to implement measures designed to reduce the occurrence of these pollution incidents.

Pollution incident reduction is part of a sewerage undertakers' general duty to provide a sewerage system that effectually deals with sewage under section 94 of the Act, as supplemented by regulation 4 of the [Urban Waste Water Treatment \(England and Wales\) Regulations 1994](#). In addition, section 37 of the Act places a duty on water undertakers to ensure arrangements are made to maintain and improve water mains and other pipes in order to provide an efficient and economical water supply system.

A relevant undertaker is a company who has statutory powers and duties to supply water, sewerage or both services to premises within an appointed geographical area under the Act. These are the incumbent water companies and new appointees, referred to in this guidance as 'you'.

The sewage system is defined in Section 17BA(7) of the Act as comprising the public sewers, facilities for emptying public sewers, the sewage disposal works, other facilities for dealing with the contents of public sewers and lateral drains that you are required to develop and maintain.

The water supply system is defined in Section 17B(4A) of the Act defines as comprising reservoirs and other places of storage, treatment works, water mains and pipes that you are required to develop and maintain.

All relevant undertakers that operate these systems must publish PIRPs and Implementation reports to comply with the requirements of the Act.

This guidance explains how the appropriate agencies (the Environment Agency in England and Natural Resource Wales in Wales, referred to as 'we', 'us' or 'our' in this guidance) expect this to be done.

This document uses the following terminology throughout:

**'Must'** indicates a statutory requirement. If you do not follow a 'must' your plan will not be legally compliant.

**'Should'** indicates an action recommended to meet a 'Must' and produce an adequate plan. If you decide to take a different approach you should clearly show how your plan continues to meet your obligations.

**'Could'** indicates approaches or actions that may further strengthen your plan and could be considered depending on your priorities.

## 2 Legal requirements and regulatory actions

### 2.1 Legal requirements

You must comply with the requirements of Sections 205A-B of the Act.

These require a new PIRP to be published before 1 April 2026 and annually thereafter. The Act also requires a new Implementation Report to be published before 1 April 2027 and annually thereafter. Therefore, in 2026 you only need to publish a PIRP. In all other years both plans and reports must be published together.

If you are a relevant undertaker that is both a water undertaker and a sewerage undertaker, the duty to publish both PIRPs and Implementation Reports is to be discharged in respect of both of your systems in a single plan. This means that your PIRP and Implementation Report must address pollution incidents from both water supply and wastewater if you undertake both those services.

PIRPs and Implementation Reports must include, or be published with, a statement by the chief executive that they have personally approved the plan.

Section 205A (4) of the Act states that a **PIRP** must address in particular:

- a) the frequency with which pollution incidents have occurred during the preceding calendar year,
- b) the seriousness of those incidents and their causes,
- c) the steps the undertaker has taken to maintain any structure or apparatus comprised in its system which has been the cause of any such incidents,
- d) the measures the undertaker intends to take or continue for the purpose of reducing the occurrence of pollution incidents,
- e) the impact that the undertaker considers the measures will have in furthering that purpose,
- f) the likely sequence and timing for implementing those measures, and
- g) any other matters specified by the Minister in directions.

Any other matters specified by the Minister in directions will be incorporated into this guidance as appropriate.

Section 205B (2) of the Act states that an **Implementation Report** is a report containing the undertaker's assessment of:

- a) the extent to which the previous PIRP succeeded in implementing the planned measures during the preceding calendar year, and
- b) to the extent that the previous PIRP failed to implement those measures during that year:
  - i. the reasons for that failure, and
  - ii. how the undertaker intends to avoid repeating that failure in respect of any measures in its current plan that are the same as, or similar to, those in respect of which the failure occurred.

When drafting and publishing PIRPs or Implementation Reports you must have regard to this guidance. Sections of this guidance regularly refer to these legislative requirements to make clear why the guidance given is necessary.

## 2.2 Regulatory actions

We will review your PIRP and Implementation Report to assess the extent to which you have followed this guidance. If you fail to comply with your duty to prepare and publish a PIRP or Implementation Report under section 205A(1) or 205B(1) of the Act then both you and your chief executive will have committed an offence. It is a defence for the chief executive to prove that they took all reasonable steps to avoid the failure.

We will take enforcement in line with our enforcement and sanctions policies (The [Environment Agency Enforcement and Sanctions Policy](#) in England and the [Natural Resources Wales Enforcement and Sanctions Policy](#) in Wales). Our Offence Response Options (The [Environment Agency Offence Response Options](#) in England and the [Natural Resources Wales Offence Response Options](#) in Wales) will set out the enforcement options for these offences from 1 April 2026.

## 2.3 Definitions

The Act and this guidance use the following terms.

### Causes (of the pollution incident)

The reasons why the pollution incident occurred, including the actions taken or not taken by you or another party that caused the issue or allowed it to persist.

Causes should include both:

- Immediate cause: The direct trigger of the incident (e.g. pump failure)
- Root cause: The fundamental, systemic reason(s) why the incident occurred, typically linked to failures or inadequacies in systems, processes, or organisational controls (e.g. inadequate maintenance planning, poor asset condition, or management system failure).

### Impact (of the measure or step)

The impact of the measure or step is the number of pollution incidents prevented, or expected to be prevented, through delivery of the relevant measure or step. This definition is derived from section 205A (4) of the Act, which refers to the impact that the undertaker considers measures taken will have in reducing pollution incidents. This is distinct from the impact of a pollution incident, referred to in the definition of 'seriousness'.

### Measure or step

A measure or step is an action or series of actions you have taken for the purpose of reducing the risk of pollution incidents. They directly contribute to this over the next calendar year or in the future. This includes both:

- new actions started in the next calendar year and
- pre-existing actions where they continue to directly contribute to fewer pollution incidents over the next calendar year or in the future.

These measures can cover any aspect of your business activities including but not limited to operations and maintenance, human resources and culture, incident response, collection and use of data and customer engagement.

## **Pollution Incident**

Pollution incidents are defined in section 205A(3) of the Act as discharges of any content from the undertaker's system which may be harmful to health or the quality of the environment. This does not include discharges of treated effluent operating in compliance with an environmental permit.

## **Relevant Undertaker**

A company who has statutory powers and duties to supply water, sewerage or both services to premises within an appointed geographical area under the Act. These are the incumbent water companies and new appointees. Referred to in this guidance as 'you'.

## **Seriousness (of the pollution incident)**

Seriousness refers to the impact the pollution incident has had on the water environment. References to seriousness should follow the methodology (for undertakers operating in England) outlined in [The Common Incident Classification Scheme \(CICS\)](#). The seriousness categories relevant to PIRPs are:

- Category 1 – major, serious, persistent and/or extensive impact
- Category 2 – significant impact
- Category 3 – minor or minimal impact

For undertakers in Wales seriousness uses the categories shown above.

## **System**

System refers to all assets within the sewage disposal network or the water treatment and supply system.

The sewage system is defined in Section 17BA(7) of the Act as comprising the public sewers, facilities for emptying public sewers, the sewage disposal works, other facilities for dealing with the contents of public sewers and lateral drains that you are required to develop and maintain.

The water supply system is defined in Section 17B(4A) of the Act defines as comprising reservoirs and other places of storage, treatment works, water mains and pipes that you are required to develop and maintain.

## **3 Principles for preparing and publishing the PIRP and Implementation Report**

This chapter explains the approach you should take to develop and publish your annual PIRPs and Implementation Reports to meet the requirements of sections 205A-B of the Act.

### **3.1 Drafting and publication**

You must publish the PIRP, Implementation Report and the accompanying statement of approval from your Chief Executive Officer on your website. You should include the CEO accompanying statement at the start of the PIRP and the Implementation Report. You should provide confirmation that the PIRP and Implementation Report has been uploaded to your website by sending us an email when you have completed this. The email should include links to the documents.

Publication should be in advance of the 1<sup>st</sup> of April each year. The location on your website should be accessible through straight-forward navigation from the website homepage and be visible to standard search engines.

The published file should remain accessible on your website for at least 5 years from the date of publication. Once published, the file should not be updated. Any updated plans should be reflected in your next annual PIRP. The file name of each annual publication should specify the date of publication, to clearly differentiate from previous publications. Publication should be in pdf format as standard. We may contact you to request associated data tables in other formats.

As outlined in section 2.2, we will review your PIRP and Implementation Report to assess the extent to which you have followed this guidance. It is good practice for you to engage with us about your approach and content at an early stage and prior to publication.

### **3.2 Scope**

PIRPs are annual plans for how water undertakers and sewerage undertakers intend to reduce the occurrence of pollution incidents that are attributable to their assets, over the next calendar year, as defined by the pollution incidents in the preceding calendar year. In doing so, you should prioritise implementation of measures that will have the greatest impact on pollution incident numbers. In the following Implementation Report, you will then assess your success or failure in delivering these measures. For example, your PIRP published by April 2026 should explain the planned measures to be implemented in the 2026 calendar year. You should assess your delivery of these planned measures in your Implementation Report published by April 2027.

These measures are to be delivered through expenditure set in the relevant Ofwat planning processes, to meet your legal obligations and associated Ofwat pollution incident reduction expectations. These pollution incident reduction expectations will vary dependent on the undertaker.

Where you are expected to have a business plan, each annual PIRP should plan to deliver the Ofwat pollution incident performance commitment levels (PCLs). In your PIRP you should make clear whether the total pollution incident PCL and serious incident PCL apply to you and what the existing targets are for these PCLs.

For new appointees, where you are not expected to have a business plan, each annual PIRP should include measures that are sufficient to ensure that your overall pollution incident performance meets your legal obligations and is not worse than the PCLs for the incumbent undertaker(s). You should distinguish between your sites in English incumbent areas and your sites in Welsh incumbent areas, at any stage.

Your PIRP should provide assurance that your measure implementation plans for the next calendar year support delivery against these PCLs and enable regulatory oversight of these plans. Where appropriate, to provide wider context for these implementation plans, your PIRP could also provide details about continued implementation of these measures in subsequent years.

In each annual PIRP you must also review the frequency, seriousness and causes of pollution incidents attributable to your assets in the preceding calendar year. For example, your PIRP published in 2026 must review the pollution incidents for the 2025 calendar year.

### **3.3 Audience**

You should regularly assess your delivery and performance against these plans for your own purposes and take necessary actions to keep delivery on track. Your PIRPs and Implementation Reports should provide transparency and public accountability for your work.

Primarily, your PIRP and Implementation Report should describe your delivery and plans to us. This requires the provision of technical information at a suitable level of detail as laid out in this guidance.

PIRPs and Implementation Reports may also be viewed by members of the public, Non-Governmental Organisations (NGOs) and other external parties. It may be difficult for all members of the public to understand some content in your PIRP or Implementation Report. However, you should still share it. You should not limit PIRPs content to the detriment of the other purposes outlined here.

You may wish to publish additional documents in support of your PIRPs and Implementation Reports to help with understanding by members of the public, NGO's and other external parties. However, these do not form part of the statutory requirements or change the required content of your PIRPs and Implementation Reports.

### **3.4 Links to Drainage and Wastewater Management Plans**

To provide assurance that your PIRP will be effective and is deliverable, you should develop your PIRP in conjunction with long term, strategic plans and investment.

There is a statutory requirement for sewerage undertakers to prepare, publish and maintain a [Drainage and Wastewater Management Plan](#) (DWMP) under Section 94A-E of the Act. A DWMP is a strategic plan for how a sewerage undertaker will manage and develop its drainage and sewerage system to meet its obligations under section 94 of the Act, as supplemented by the Urban Wastewater Treatment (England and Wales) Regulations 1994. DWMPs must identify all current and future risks, measures and investment needs for your drainage and sewerage system over the next 25 years, including pollution incident reduction. PIRPs and Implementation Reports focus on the operational measures' sewerage undertakers are undertaking to address pollution each calendar year.

DWMPs are expected to be published in draft by November 2027 for a 12-week public consultation and in final by August 2028, after which they will be subject to an annual review

Sewerage undertakers DWMPs annual review should reflect the trends of pollution incidents (amongst other performance indicators) in relation to the systems performance for each sewerage catchment.

Not all undertakers are required to produce DWMPs.

Risk based planning in sewerage undertakers DWMP will identify recent performance issues associated with the drainage and sewerage system. You should use the evidence of pollution incident trends from risk-based planning in your DWMP to identify the immediate operational activities within the PIRP.

## 3.5 Content Principles

Chapter 4 includes specific content requirements for your PIRP and Implementation Report. You should have regard to the following overarching content principles when providing this information.

### 3.5.1 Asset Types

PIRPs and Implementation reports must describe the measures planned or delivered across your whole asset base.

The relevant asset base will vary by undertaker. You should include any relevant measure being implemented on, or for the benefit of, any asset type in your PIRP and Implementation Report

You should provide content in your PIRP and Implementation report separately for each asset type relevant to you. If you do not own an asset type you do not need to reference it in your PIRP or Implementation report.

Where you have the following wastewater asset types, you should refer to them separately in your PIRP and Implementation Report using the following names:

- Foul Sewers
- Combined Sewer Overflows
- Rising Mains
- Wastewater Pumping Stations
- Wastewater Treatment Works
- Surface Water Sewer and associated outfalls
- Storm Tanks

You should only use the Storm Tank asset type when describing measures located for Storm Tanks on the sewer network. You should list Storm Tanks located at Wastewater Treatment Works under the Wastewater Treatment Works asset type.

Where you have the following clean-water asset types, you should refer to them separately in your PIRP and Implementation Report using the following names:

- Water Distribution Network
- Water Treatment Works

The “Water Treatment Works” asset type includes any site where part or the whole of the treatment process is undergone. For example, this includes Water Treatment Works, raw water reservoir sites, chlorination facilities and associated pumps. The “Water Distribution Network” asset type includes but is not limited to raw water mains, drinking (potable) water mains, trunk mains, potable water reservoirs (that are off site from a Water Treatment Works) and booster (pressure) pumping sites.

These lists are not exhaustive, and you should provide information for any asset type you have with relevant measures implemented or planned.

Where you are implementing an overarching measure or action to benefit overall undertaker operations rather than specific asset type(s) this should be listed under an “across asset base” asset type. However, you should record measures against specific asset types wherever possible.

### 3.5.2 Measures and actions

To explain the steps taken and additional measures to reduce pollution incidents attributable to your assets you must detail appropriate measures for each asset type in your PIRP and Implementation Report. This guidance includes a standard list of measures in Chapter 5 that you should use where appropriate. Different undertakers may implement these measures in different ways, by implementing one or more actions that collectively contribute to meeting the measure. Examples of types of actions include, but are not limited to:

- introduction of new systems and technology
- programmes of asset maintenance
- culture and human resource initiatives
- operational response

You should wherever possible include details about the scale at which the action has, or will be, implemented. How you can describe scale will vary dependent on the nature of the action so is not defined in this guidance. Where you include details about scale you should use a format you consider appropriate to that action. Where possible, you should provide a numeric measure of scale. For example, you could give the number of units for installation of new technology across an asset base. You could supply the number of sites where the actions to undertake maintenance will be delivered. In addition to this, you could provide further context for this scale. For example, the action may be undertaken across this asset type, in specific catchments, or at individual sites.

We are not expecting all undertakers to implement all the measures in the standard list. However, where you are referring to actions which contribute to meeting the measures in the standard list, you should include the standard measure in your PIRP and Implementation Report. The standard measures list should not limit the content of your PIRP or Implementation Report. Where you are planning actions which do not contribute to meeting the measures in the standard list, you should include additional, bespoke measures in your PIRP and Implementation Report. You should include the necessary information in your PIRP to describe any bespoke measures used and highlight them in your PIRP and Implementation Reports to differentiate from those in the standardised measures list.

### 3.5.3 Causes

To properly explain the causes of a pollution incident you should determine the immediate and root cause(s) of the pollution incident as defined in section 2.3.

For example, if an overflowing manhole causes pollution of a watercourse, you may identify the event that caused this was a blockage in the sewer. You must assess further to understand the underlying systemic reasons for this blockage. You may identify that an immediate cause of the blockage as a build-up of rags and fats, oils and grease (FOG). You still need to assess further to identify the actions taken or not taken by you or another party that caused the issue or allowed it to persist. Further assessment may identify a lack of proactive maintenance that

allowed the buildup of rags and FOG to occur. You should then report this is as a root cause in your PIRP.

This process ensures that investigations look beyond the immediate technical failures and address the wider organisational or systemic issues that contribute to pollution incidents.

You should include your understanding of root cause(s) in your PIRP as described in chapter 4. It is important that you are open and transparent with this information to provide assurance on the effectiveness of your plans.

## 4 Required structure and content for the PIRP and Implementation Report

This chapter describes the content we expect you to include in your PIRPs and Implementation Reports to meet the requirements of sections 205A-B of the Act.

You should structure your PIRP to include the PIRP sections and associated content shown in guidance sections 4.1 to 4.3 below. These are not exhaustive, and we encourage you to include more information in these sections or other sections where this helps inform us about your performance, implementation and plans.

When describing measures, you should use the measures from the standard list given in Section 5 wherever possible, as described in Section 3.5.2. Where you are implementing the same measure at multiple asset types, you should give the corresponding implementation details referred to below separately for each asset type.

Sections 4.1 to 4.3 also include guidance about the need to include different content, which will vary between undertakers based on the assets the undertaker operates and their pollution incident record. This enables proportional PIRPs requirements for undertakers of different sizes. For example, a small undertaker that has caused zero pollution incidents in the preceding calendar year, will be able to produce a smaller PIRP than a large undertaker that has caused a large number of pollution incidents.

You should include the information described in section 4.4 below in your Implementation Report.

### 4.1 PIRP Section 1: Pollution incident frequency, seriousness and their causes

To meet the requirements of Section 205A(4)(a)-(b) of the Act, your PIRP must give clear information about the frequency, seriousness and causes of pollution incidents attributable to your system in the preceding calendar year. Information about frequency and seriousness must use the pollution incident data that we hold, as this is the official national record of pollution incidents that have occurred. You can request this data from us if needed. You should update this data during drafting as necessary to ensure that the data used in your final published PIRP is as up to date as possible. If finalised pollution incident data is not available in time for publication you should note this in your PIRP.

#### 4.1.1 Frequency and seriousness of pollution incidents

To address the frequency and seriousness of these pollution incidents, for each asset type that has caused incidents in the preceding calendar year you should provide a table that summarises the number of incidents that occurred in each month of that year. The table should include columns which allow the number of incidents to be split separately into:

- Category 1 pollution incidents
- Category 2 pollution incidents
- Category 3 pollution incidents

This categorisation should use the definition of 'Seriousness' given in section 2.3.

An example of the table format you should use is provided in the supporting document (see *Example Tables*, Table 1). Select asset types from section 3.5.1.

## 4.1.2 Causes of pollution incidents

To address the causes of these pollution incidents, you should provide data tables that show the causes of serious (Category 1-2) pollution incidents and Category 3 pollution incidents, as described below.

You should provide a table for each asset type that has caused serious (Category 1-2) pollution incidents in the preceding calendar year. In these table(s) you should include the following details in separate columns for each serious pollution incident that occurred during that time-period:

- event number
- reported date and time
- location
- seriousness
- root cause(s)

An example of the format you should use is provided in the supporting document (see *Example Tables*, Table 2).

You should also provide a table for each asset type that has caused Category 3 pollution incidents in the preceding calendar year that lists the root causes of these pollution incidents over that time-period.

You should include further columns in the same table(s) to separately provide the following information for each root cause:

- the number of Category 3 pollution incidents from that asset type caused by the root cause
- the proportion of Category 3 pollution incidents from that asset type caused by the root cause, as a percentage.

An example of the table format you should use is provided in the supporting document (see *Example Tables*, Table 3).

In principle, you should include details on all root causes relevant to pollution incidents from that asset type in the preceding calendar year. However, for asset types that have caused a large number of pollution incidents you could limit this information to root causes related to more than 5% of Category 3 pollution incidents for that asset type. In general, you could apply this 5% threshold for asset types that caused more than 20 pollution incidents in the calendar year. Some incidents may have more than one root cause. Because of this, the percentages of pollution incidents associated with each root cause shown in this table may total more than 100%. In these circumstances the 5% threshold could also apply to asset types that have caused 20 pollution incidents or less.

In the supporting narrative you should state the value(s) of the Ofwat PCLs that apply to you. You should conclude on whether the performance detailed has met these targets. You should also expand on any trends and points of interest highlighted by the data. These should include, but are not limited to:

- relative pollution incident performance of different asset types
- trends in occurrence of pollution incidents across the year
- notable root causes of incidents

In each case you should explain the reasons for these trends or points of interest and how this understanding will inform your future PIRPs. In addition, it is good practice to relate these and any other points to historic data, to provide insight into longer term trends.

If the official national record of pollution incidents shows you have not caused any pollution incidents in the preceding calendar year, you should confirm this in your PIRP. You will not need to provide the above details in this section.

## 4.2 PIRP Section 2: The steps taken to maintain the system

To meet the requirements of Section 205A(4)(c) of the Act, your PIRP must give clear information about the steps that were in place or have been progressed on your asset base during the preceding calendar year. You must give this information for each of your asset types that has caused pollution incidents over this time-period.

For each relevant asset type, you should provide a table that lists the names of all measures relevant to that asset type. This includes measures implemented in full or part during that calendar year. This should also include pre-existing measures already in place, where you consider inclusion is necessary to properly reflect your ongoing pollution incident reduction programme.

You should include further columns in the same table(s) to separately provide the following information for each measure:

- description of the actions included in the measure
- any appropriate details about the scale of the actions included in the measure
- the impact the measure has had given as the number of Category 1-3 incidents prevented by the measure in that calendar year
- the root cause(s) addressed by the measure, as identified in section 1 of this PIRP or previous PIRPs
- summary of any recent pollution incident performance issues associated with the drainage and sewerage system identified in your DWMP and addressed by the measure
- delivery status of the measure at the end of that calendar year (pre-existing, delivered in year, in progress)

If you need to provide any other information about the steps you have taken to maintain your system, you could add a further comments column to this table.

An example of the table format you should use is provided in the supporting document (see *Example Tables*, Table 4).

In the supporting narrative you should explain how well the steps taken have addressed the root causes of incidents you have caused. Where these are planned additional measures in previous PIRPs, you should explain whether you have achieved the expected impact and the reasons for this. You should also explain whether you have fully addressed any recent pollution incident performance issues associated with the drainage and sewerage system identified in your DWMP. If you have not fully addressed these performance issues, you should explain why this is the case.

If the official national record of pollution incidents shows you have not caused any pollution incidents in the preceding calendar year, you should confirm this and you will not need to provide the above details in this section. However, it would be good practice to include details about the steps you took to achieve this.

### 4.3 PIRP Section 3: Planned additional measures

To meet the requirements of Section 205A(4)(d)-(f) of the Act, your PIRP must give clear information about the additional measures you intend to take, their expected impact and their likely sequence and timing.

For each asset type you are planning additional measures for, you should provide a table that lists all the measures relevant to that asset type. This includes measures implemented through previous PIRPs that are still outstanding or will be continued and new measures to be implemented during the next calendar year. These measures should be sufficient to enable you to meet your legal duties and Ofwat PCLs. Therefore, you should include any additional measures across any asset types you consider necessary for this purpose, even if the asset type(s) have not caused pollution incidents in the last calendar year.

You should include further columns in the same table(s) to separately provide the following information for each measure:

- description of the actions included in the measure
- any appropriate details about the scale of the actions included in the measure in the next calendar year
- the impact the measure is expected to have in the next calendar year
- the root cause(s) addressed by the measure, as identified in section 1 of this PIRP or previous PIRPs
- summary of any recent pollution incident performance issues associated with the drainage and sewerage system identified in your DWMP addressed by the measure
- date you will start implementing the measure, to the nearest month
- date you will complete implementing the measure, to the nearest month.

If you need to provide any other information about the planned additional measures, you could add a further comments column to this table.

An example of the table format you should use is provided in the supporting document (see *Example Tables*, Table 5).

The way you explain impact should reflect your confidence in the information. Where possible you should confirm the number of Category 1-3 incidents you expect to prevent by the measure per calendar year following implementation. If this is not possible, you should rate the expected effectiveness of the measure on a scale with a clear range of Category 1-3 incidents you will prevent.

In the supporting narrative you should explain how effectively you expect the additional measures planned to address the root causes of incidents you have caused. You should explain how effectively you expect these measures to resolve any recent pollution incident performance issues associated with the drainage and sewerage system identified in your DWMP. If you do not expect these measures to fully resolve these performance issues you should explain why this is the case. You should also confirm whether you expect the additional measures planned will enable you to meet the Ofwat PCLs that apply to you.

If you also have plans to implement these measures in subsequent calendar years, to provide context for your implementation plans for the next calendar year, you could include supporting narrative or data tables that provide the same information for other years.

You must complete this section in your PIRP, even if the official national record of pollution incidents shows you have not caused any pollution incidents in the preceding calendar year. In this circumstance, this is to explain the measures you intend to take to keep pollution incident numbers low.

## 4.4 Implementation Report

To meet the requirements of Section 205B(2) of the Act, your Implementation Report must clearly explain the extent of your success or failure in implementing the planned measures in the preceding calendar year. This must include any additional measures referred to in any previous PIRPs as being either implemented or on-going in the preceding calendar year. You must also explain how you will avoid repeating any implementation failures in your current PIRP.

For each relevant asset type, you should provide a table that lists all such measures relevant to that asset type. This table should include further columns which separately provide the following information for each measure:

- description of the action(s) included in the measure
- scale of the actions included in the measure
- planned implementation start date to the nearest month
- planned implementation completion date to the nearest month

You should include a further column in the same table(s) to show the extent of implementation planned or achieved at the end of the preceding calendar year. In this column you should use one of the following categories to show the extent of implementation:

- **full**: you have implemented or planned all intended actions, either exactly or approximately to the scale intended
- **expanded**: you have implemented or planned all intended actions, with some or all to a greater scale than intended
- **partial**: you have only implemented or planned some of the intended actions, or have implemented or planned one or more intended actions to notably less than the scale intended
- **none**: you have not implemented the intended actions

You should include a further column in the same table(s) to describe the position of the measure at the end of the preceding calendar year. In this column you should use one of the following categories to show the position of the measure:

- **implemented on time**: You have implemented the measure by the intended completion date
- **implemented late**: You have implemented the measure, but not by the intended completion date
- **on track**: You are implementing the measure, and expect to complete this by the intended completion date
- **removed**: You have not implemented the measure and none of the intended actions are now planned for implementation.

To explain your use of these categories, you should include a further column in the same table(s) to give the reasons for the position of any measures, other than those you have identified as 'full' and 'on track' or 'implemented on time'.

You should include a further column in the same table(s) to explain how you intend to avoid repeating any failure of implementation identified when delivering the same or similar measures in your current PIRP. You only need to complete this column where you have identified a failure to implement your plans. Planned non-delivery of actions and measures, for example due to a change in business priorities, should be referred to in your explanation.

An example of the table format you should use is provided in the supporting document (see *Example Tables*, Table 6).

In the supporting narrative you should explain whether the implementation you have detailed represents good overall delivery of your previous PIRPs.

## 5 Standardised measures

### 5.1 Any appropriate asset type

Use the following measures for any appropriate asset type:

Measure name: Telemetry installation.

Description: Installation of monitoring to provide digital alerts for remote real-time identification of potential issues.

Note: This measure does not prevent pollution incidents. It identifies potential pollution incidents and enables prevention through other measures. Therefore, the impact of this measure should be given as zero.

Measure name: Use of predictive analytics.

Description: Use of Artificial Intelligence technology to assess telemetry data to predict asset issues and allow early response.

Measure name: Manual analysis of telemetry data.

Description: Direct use of telemetry data to manually identify issues and allow early response.

Measure name: Remedial capital asset improvements.

Description: Proactive rehabilitation or replacement and modernisation of network, outfalls and sites to improve operation, resilience and reliability of the asset type.

Measure name: Implementation of proactive cleaning and maintenance.

Description: Regular proactive cleaning, inspection and maintenance programme for the asset type to reduce blockages or failure.

Note: For the Rising Main and Water Distribution Network asset types, you should report maintenance of air valves separately in the 'Air valve maintenance' measure for that asset type. For the Pumping Station asset type, you should report cleaning of wet wells in the 'Enhanced proactive wet well cleaning programme' measure for that asset type.

Measure name: Staff training (asset type specific).

Description: Formal organised training of staff on relevant processes and procedures associated with reducing pollution at this asset type.

Measure name: Enhanced incident response

Description: Implementation of equipment, resources and processes to mitigate the impact of pollution in response to early warning data.

## **5.2 Water treatment works asset types**

Use the following measures for the Water treatment works asset types:

Measure name: Scour valve management.

Description: Understanding and mitigation of the environmental harm and flooding risk of scour valve testing. Environmental harm is not limited to sediment pollution or scouring but also the ecological impacts.

Measure name: Site chemical barrier implementation.

Description: Maintenance and installation of bunding around chemicals in use that are harmful to the environment to avoid environmental contamination due to chemical releases. Adoption of best available techniques in site pollution prevention.

Measure name: Management of clean water discharges

Description: Controls for run-to-waste discharges from boreholes and clean water mains that reduce the risk of uncontrolled discharges into the environment, ensuring compliance with discharge consents and minimising pollution risk.

## **5.3 Wastewater treatment works and Water Treatment Works asset types**

Use the following measures for the Wastewater treatment works and Water Treatment Works asset types:

Measure name: Upper Tier audit programme.

Description: Proactive assurance activities to reduce the likelihood of upper tier determining failures.

Measure name: Screens maintenance.

Description: Proactive replacement or refurbishment of inlet screens to ensure effective screenings removal and reduce blockages on site.

Measure name: Active management of sludge, sludge stock and dry solids.

Description: Measures to remove sludge from the treatment process, including Better use of onsite monitoring, sludge dewatering, effective use of tankers.

Note: Sludge includes collected sediments or flocculants.

## **5.4 Water Treatment Works, Wastewater Treatment Works and Wastewater Pumping Stations asset types**

Use the following measures for the Water Treatment Works, Wastewater treatment works and Wastewater Pumping Stations asset types:

Measure name: Power resilience improvements.

Description: Improve response to power outages and availability of backup technology to ensure asset continues to operate.

## **5.5 Wastewater Pumping Stations asset type**

Use the following measures for the Wastewater Pumping Stations asset type:

Measure name: Enhanced proactive wet well cleaning programme.

Description: Regular proactive cleaning programme to reduce blockages.

## **5.6 Foul Sewers asset type**

Use the following measures for the Foul Sewers asset type:

Measure name: Mains interceptor maintenance programme.

Description: Removal or maintenance of mains interceptor manholes that have been causing blockages.

Measure name: Customer engagement

Description: Initiatives to improve customer behaviour to reduce blockages

## **5.7 Combined Sewer Overflows asset type**

Use the following measures for the Combined Sewer Overflows asset type:

Measure name: Dual Manhole Surveys and upgrades.

Description: Assessing and upgrading assets to ensure that foul and surface water separation is adequate, to reduce the risk of foul overflow into storm drainage.

## **5.8 Rising Mains and Water Distribution Network asset type**

Use the following measures for the Rising Mains and Water Distribution Network asset type:

Measure name: Pressure calming.

Description: Use of pressure monitors data to manage assets to reduce pressure transients and variance.

Measure name: Air valve maintenance.

Description: Maintaining or replacing air valves to better control pressure and reduce burst frequency.

## **5.9 Water Distribution Network asset type**

Use the following measures for the Water Distribution Network asset type:

Measure name: Smart Valve installation.

Description: Installation of technology to allow remote closure or opening of valves in the distribution network.

Note: This measure does not prevent pollution incidents. It enables prevention through other measures e.g. pressure calming. Therefore, you should give the impact of this measure as zero.

## **5.10 Across the whole asset base**

Use the following measures when describing overarching measures taken across the whole asset base:

Measure name: Improve root cause analysis techniques.

Description: Improvement of pollution incidents route cause analysis approach and techniques to enable better understanding of root causes of incidents and development of measures.

Note: This measure does not prevent pollution incidents. It enables prevention of pollution incidents through improved development of other measures. Therefore, you should give the impact of this measure as zero.

Measure name: Staff training (business-wide).

Description: Training of staff on relevant processes and procedures associated with reducing pollution across asset types.

Measure name: Company cultural or behavioural change.

Description: Structural improvements at department or business-wide level to drive behaviours that better enable the undertaker to identify and prevent pollution incidents