Environment Agency Environmental Performance Assessment (EPA) methodology (version 8) for 2021 to 2025

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1.0 Introduction to EPA methodology

The Environmental Performance Assessment (EPA) was introduced by the Environment Agency in 2011 as a non-statutory tool for comparing performance between water and sewerage companies (WaSCs) operating wholly or mainly in England. It uses measurable environmental metrics to provide a meaningful comparison of performance across the 9 WaSCs (called water companies in this methodology). The background to the EPA is set out in Appendix 1. It forms part of a report, produced annually, on the ''Environmental performance of the water and sewerage companies'' which is published on GOV.UK. We also publish an Infographic based on the EPA at the same time as the report, on GOV.UK. In October 2020, we published additional data reports on each water company for 2011 to 2019, which we will update each year (see Section 7.1)

1.1 EPA review for 2021 to 2025 data

The EPA targets we set for each metric align with the 5 year Asset Management Plan (AMP) investment cycles for water companies to make improvements and meet our expectations. Therefore, every 5 years we review the reporting and EPA we do to improve it and focus attention on water companies meeting statutory obligations and our expectations.

Between December 2019 and February 2020, the EA and Natural Resources Wales (NRW) consulted many stakeholders on proposals to change reporting and widen, strengthen and tighten the EPA for 2021 to 2025 data years.

This methodology describes the updated reporting approach and EPA for use for 2021 to 2025 data reporting. As some of the data is collected for a calendar year and some for a financial year, the period of data collection is 1 January 2021 to 31 March 2026.

This methodology includes revised definitions and thresholds for existing metrics, as well as new metrics and cessation/replacement of metrics.

1.2 Weighting of metrics and Ofwat Common Performance Commitments (CPC)

See Section 5.2 for implementation of a new core metric approach. In addition, Ofwat have adopted two metrics (total pollution incidents and discharge permit compliance) as common performance commitments (CPC) for 2020 to 2025 for water companies.

1.3 Timescale

This methodology will be implemented and the assessment published, starting with the 2021 data assessment for publication in 2022. Some metrics are for a calendar year and some are for a financial year (1 April to 31 March). Where we say 2021 data we mean a calendar year and if the metric is for a financial year it will be 1 April 2021 to 31 March 2022.

1.4 Shadow reporting

Below we describe what we mean by shadow reporting.

Alongside the live EPA metrics there will be a new abstraction and impoundment licence compliance metric beginning on 1st January 2021 in a shadow capacity (ie assessment not published). See Appendix 2. There will also be a shadow assessment using the discharge permit compliance (numeric) metric in a 'core metric' approach (see Section 5.2).

We are also developing further metrics for use in a shadow capacity (not published) during the period 2021 to 2025 before full implementation in the published EPA for 2026 data onwards. More details on these are in the forward look and future reporting section of this methodology (see Section 8.0).

We will use these shadow assessments to:

- illustrate new metrics or assessment approaches before they are fully in use.
- inform performance reviews with water companies.
- enable us to gather insight into how they are working with a view to improving and amending where necessary for both the definition of the metric and the associated data and reporting processes,
- facilitate early focus on performance and encourage improvement where required.
- give us the opportunity to introduce new metrics or assessment approaches as live in the future.

We do not intend to publish the results of any shadow assessments.

We will update the EPA methodology before a shadow assessment ceases and moves to become part of the live EPA. We will be clear about when new EPA metrics or approaches are adopted into the live EPA and reporting process.

An abstraction and impoundment licence compliance metric will be used as a shadow metric initially for 2021 data and we plan to introduce this as a live EPA metric as soon as possible later in the EPA 5 year cycle. The exact timing of the cessation of shadow assessment and use in the live EPA will be determined by the Environment Agency following refinement of the metric and process for compliance assessment and reporting as required, using learning from the shadow period. Details of the abstraction and impoundment licence compliance shadow metric can be found in Appendix 2.

1.5 Future EPA methodology revisions

The EPA methodology will be re-issued in advance of major changes e.g. the cessation of a metric from use in a shadow capacity to become part of the live EPA.

2.0 Definitions of the live EPA metrics

For the 2022 edition of the EPA onwards (applied to data collected from the 1st January 2021) the EPA metrics are:

1. Total pollution incidents (category 1 to 3 from sewerage assets as normalised)
2. Serious pollution incidents (category 1 and 2 from sewerage and water supply assets)
3. Discharge permit compliance (numeric)
4. Self-reporting of pollution incidents (category 1 to 3 from sewerage and water supply assets)
5. Water Industry National Environment Programme (WINEP) scheme delivery
6. Supply Demand Balance Index (SDBI)

This EPA will report for 1 January 2021 to 31 March 2026, just prior to this (in 2024 to 2025) a review will take place in line with the 5 year Periodic Review cycle of water company investment regulated by Ofwat.

2.1 Total pollution incidents (category 1 to 3 from sewerage assets as normalised)

This metric includes pollution incidents from transferred/adopted private sewers, pumping stations and rising mains. The normalisation of the metric by sewer length includes this increased length.

This metric includes incidents from the sewerage system and assets only and not the water supply (clean water) service (e.g. from the water distribution system and water treatment works).

This metric has been adopted as a common performance commitment by Ofwat for 2020 to 2025.

Incidents from combined sewer overflows that are satisfactory / compliant, deemed not be having an unacceptable impact on the environment, will not be included in the EPA. Those which are assessed as having an unacceptable impact on the environment will be reported in the EPA.

1. Total pollution incidents (category 1 to 3 from sewerage assets as normalised)

Definition of measure

The total number of pollution incidents (categories 1 to 3) in a calendar year emanating from a discharge or escape of a contaminant from a water company sewerage asset affecting the water environment. This does not include incidents impacting solely on air or land. Incidents affecting amenity of the water environment, e.g. Bathing Waters, are included. It includes pollution incidents from transferred/adopted private foul sewers (transferred in October 2011). It also includes pollution incidents from transferred/adopted private pumping stations and from transferred/adopted private rising mains (transferred in October 2016). Pollution incidents attributed to the water supply (clean water) distribution

system and water treatment works are not included in this total pollution incidents sewerage definition.

Assets included in the sewerage service are:

- waste water treatment works
- foul sewers, including private sewers transferred to the water companies in Oct 2011 (used in the EPA from 1 Jan 2016)
- combined sewer overflows, excluding satisfactory CSOs
- rising mains, including private rising mains transferred to the water companies in October 2016 (used in the EPA from 1 Jan 2021)
- pumping stations, including private pumping stations transferred to the water companies in October 2016 (used in the EPA from 1 Jan 2021)
- storm tanks
- surface water outfalls
- other

This is not an exhaustive list. The 'other' category is an optional categorisation used in the Environment Agency National Incident Recording System (NIRS) database (NRW use an equivalent system called 'Natural Resources Wales Incident Recording System' WIRS) for recording incidents where the incident source does not fit in any of the other categories. It is generally used very infrequently but is used occasionally.

Obligation

Environmental laws including the Environmental Permitting (England & Wales) Regulations 2016. The 2016 Regulations apply to any incident from 1 January 2017 onwards. Water Industry Act 1991, Section 94 – general duties of sewerage undertakers (duty to maintain sewers and lateral drains so as to effectually drain its area, and to deal effectually with the contents of sewers).

Calculation

The total number of pollution incidents (categories 1 to 3) per 10,000 km of sewer length for which a water company is responsible in a calendar year as recorded on the Environment Agency's NIRS database (NRW use an equivalent system called WIRS).

Note:

a) *The calculated result is rounded to 0 decimal places for assessment against the thresholds below and for reporting*

Target

The 5 year glide path thresholds set are evidence based taking into account the previous performance of water companies over the three year period (2016 to 2018) and our Water Industry Strategic Environmental Requirements (WISER) expectations. In October 2017 we set out our performance expectations for 2020 to 2025 in WISER. Relevant extracts from WISER are reproduced in Appendix 3.

Frequency

Annually, based on a calendar year.

Thresholds

The red, amber, green (RAG) threshold 5 year glide path (per 10,000km of sewer):

	Green threshold	Amber threshold	Red threshold
Year 1 (2021 data)	<=23	>23 & <42	>=42
Year 2 (2022 data)	<=22	>22 & <40	>=40
Year 3 (2023 data)	<=21	>21 & <38	>=38
Year 4 (2024 data)	<=20	>20 & <37	>=37
Year 5 (2025 data)	<=19	>19 & <35	>=35

2.2 Serious pollution incidents (category 1 and 2 from sewerage and water supply assets)

This metric includes serious incidents from transferred/adopted private sewers, pumping stations and rising mains. This metric includes incidents from the sewerage service and from the water supply service (clean water).

2. Serious pollution incidents (category 1 and 2 from sewerage and water supply assets)

Definition of measure

The total number of serious pollution incidents (categories 1 and 2) in a calendar year emanating from a discharge or escape of a contaminant from a water company sewerage asset or water supply asset affecting the water environment. The measure now incorporates water supply (clean water) incidents, as well as including sewerage incidents. It includes pollution incidents from transferred/adopted private foul sewers (transferred in October 2011). It also includes pollution incidents from transferred/adopted private pumping stations and from transferred/adopted private rising mains (both transferred in October 2016). This measure does not include incidents impacting solely on air or land. Incidents affecting amenity of the water environment, e.g. Bathing Waters, are included.

Assets included are:

- waste water treatment works
- foul sewers, including private sewers transferred to the water companies in Oct 2011 (used in the EPA from 1 Jan 2016)
- combined sewer overflows

- rising mains, including private rising mains transferred to the water companies in October 2016 (used in the EPA from 1 Jan 2021)
- pumping stations, including private pumping stations transferred to the water companies in October 2016 (used in the EPA from 1 Jan 2021)
- storm tanks
- surface water outfalls
- other
- water treatment works
- water distribution system

This is not an exhaustive list. The 'other' category is an optional categorisation used in the Environment Agency National Incident Recording System (NIRS) database (NRW use an equivalent system called 'Natural Resources Wales Incident Recording System' WIRS) for recording incidents where the incident source does not fit in any of the other categories. It is generally used very infrequently but is used occasionally.

Obligation

Environmental laws including the Environmental Permitting (England & Wales) Regulations 2016. The 2016 Regulations apply to any incident from 1 January 2017 onwards. Water Industry Act 1991, Section 94 – general duties of sewerage undertakers (duty to maintain sewers and lateral drains so as to effectually drain its area, and to deal effectually with the contents of sewers). Water Industry Act 1991, Section 37 general duties of water undertakers (water companies must maintain an efficient and economical system of water supply); Section 52 – domestic supply duty and Section 55 – supplies for non-domestic use duty.

Calculation

The total number of pollution incidents (categories 1 and 2) that a particular sized water company is responsible in a calendar year as recorded on the Environment Agency's NIRS database (NRW use an equivalent system called WIRS).

Note:

a) The metric uses whole incident numbers (not normalised) for assessment against the thresholds below and for reporting

Target

In 2017 we set out our performance expectations for 2020 to 2025 in the Water Industry Strategic Environmental Requirements (WISER). Relevant extracts from WISER are reproduced in Appendix 3. This includes an expectation for serious (category 1 and 2) pollution incidents to trend to zero by 2025.

Frequency

Annually, based on a calendar year.

Thresholds

The red, amber, green (RAG) threshold 5 year glide path:

	Anglian Water Severn Trent Water Thames Water United Utilities	Dŵr Cymru Welsh Water Northumbrian Water Southern Water South West Water Wessex Water Yorkshire Water
Year 1 & 2 (2021 & 2022 data)	<=3	<=1
	4 or 5	2 or 3
	>=6	>=4
Year 3 & 4 (2023 & 2024 data)	<=2	<=1
	3 or 4	2
	>=5	>=3
Year 5 (2025 data)	<=1	0
	2 or 3	1
	>=4	>=2

2.3 Discharge permit compliance (numeric)

Permitted waste water discharges from waste water treatment works and water treatment works are assessed for compliance with numeric limits in permits. The discharges and sites that are included in the assessment are agreed with water companies each autumn and the process of assessment and reporting is set out clearly in an EA Operational Instruction and supporting documents.

This metric has been adopted as a common performance commitment by Ofwat for 2020 to 2025.

3. Discharge permit compliance (numeric)

Definition of measure

The performance of waste water treatment works (to treat and dispose of sewage) and water treatment works (for the water supply service) in line with their numeric discharge permit conditions.

The discharge permit compliance metric is reported as the number of failing sites and not the number of failing discharges. The calculation of the metric is set out below.

Obligation

Environmental laws including the Environmental Permitting (England & Wales) Regulations 2016. Compliance with the requirements of permits issued for water discharge activities and groundwater activities under the Environmental Permitting

Regulations (2016). The 2016 Regulations apply to any compliance breach from 1 January 2017 onwards.

Calculation

(B-A)/B * 100 where:
A is No. of sites where one or more discharges confirmed failing in calendar year; and
B is No. of discharges on EA / NRW register during calendar year (in force).

A discharge can be confirmed as failing for the following breaches of a numeric permit at waste water treatment works and water treatment works:

- sanitary parameters numeric limits
- sanitary parameters Look Up Table (LUT) numeric limits (rolling 12 months but only counting exceedances that have occurred in the calendar year)
- sanitary parameters Upper Tier (UT) numeric limits
- nutrient parameters numeric limits (annual mean limits only using samples collected in the calendar year)
- non sanitary parameters numeric limits (annual mean limits only using samples collected in the calendar year)
- non sanitary parameters Look Up Table (LUT) numeric limits (rolling 12 months but only counting exceedances that have occurred in the calendar year)
- non sanitary parameters Upper Tier (UT) numeric limits
- Urban Waste Water Treatment Directive (UWWTD) numeric parameters compliance
- UWWTD failure to collect or analyse required number of samples and/or parameters
- UWWTD LUT parameters numeric limits
- UWWTD UT parameters numeric limits
- UWWTD Nutrients parameters numeric limits
- Ultraviolet (UV) Disinfection Dose (failure to meet the permitted rolling annual or daily dose requirements)
- Water Treatment Works (WTW) compliance with numeric parameter limits

Notes:

a) *'sanitary parameters' mean Biochemical Oxygen Demand (BOD), Ammonia and Suspended Solids*
b) *the calculation result is rounded to 1 decimal place for assessment against the thresholds below and for reporting*

Target

100% discharge permit compliance. The thresholds set are based on our Water Industry Strategic Environmental Requirements (WISER) expectations. The trigger limits are based on statistical analysis of the data set and our expectations of the sector. In 2017 we set out our performance expectations for 2020 to 2025 in the WISER. Relevant extracts from WISER are reproduced in Appendix 3.

Frequency

Annually based on a calendar year.

Thresholds

Green - the current year's performance is equal to or more than 99%.
Amber - the current year's performance is greater than 98% and less than 99%.
Red - the current year's performance is equal to or less than 98%.

2.4 Self-reporting of pollution incidents (category 1 to 3 from sewerage and water supply assets)

Self-reporting of pollution incidents can contribute to each water company's proactive and predictive pollution prevention activities leading to prevention and effective management of their responses when incidents do occur.

We have changed the self-reporting of pollution incidents metric thresholds in line with the WISER target. WISER also gives targets for self–reporting per asset type. It states the expectation as 'high levels of self-reporting of pollution incidents with at least 80 per cent of incidents self-reported by 2025' and 'More than 90% of incidents self-reported for waste water treatment works (WwTW) and pumping stations (PS).'

A figure of 90% for WwTW and PS self-reporting calculated from the combined data set is required to achieve a green rating. We have set this target to encourage better performance, as these assets commonly either have staff on site or have alarms in place to provide early warning and hence reporting and action in the event of any problems.

We will report the WwTW and PS figure in the EPA table in brackets next to the self-reporting figure for clarity.

As set out above in the pollution incident metric sections, from and including the 2021 data year, we will include incidents and asset numbers from transferred/adopted foul sewers, pumping stations and associated rising mains.

Incidents from combined sewer overflows that are satisfactory / compliant, deemed not be having an unacceptable impact on the environment, will not be included in the EPA. Those which are assessed as having an unacceptable impact on the environment will be reported in the EPA.

4. Self-reporting of pollution Incidents (category 1 to 3 from sewerage and water supply assets)

Definition of measure

The percentage of self-reporting by the water company of pollution incidents (category 1 to 3) in a calendar year from sewerage and water supply assets. This does not include incidents impacting solely on air or land. Incidents affecting amenity of the water environment, e.g. Bathing Waters, are included. It also includes pollution incidents from

transferred/adopted private pumping stations and from transferred/adopted private rising mains (both transferred in October 2016).

Assets included in the sewerage and water supply services are:

- waste water treatment works
- foul sewers, including private sewers transferred to the water companies in Oct 2011 (used in the EPA from 1 Jan 2016)
- combined sewer overflows, excluding satisfactory CSOs
- rising mains, including private rising mains transferred to the water companies in October 2016 (used in the EPA from 1 Jan 2021)
- pumping stations, including private pumping stations transferred to the water companies in October 2016 (used in the EPA from 1 Jan 2021)
- storm tanks
- surface water outfalls
- other
- water treatment works
- water distribution system

Obligation

Environmental laws including the Environmental Permitting (England & Wales) Regulations 2016. The 2016 Regulations apply to any incident from 1 January 2017 onwards. Section 94 – general sewerage duty (duty to provide, improve, extend sewers and to cleanse and maintain sewers and lateral drains so as to effectually drain its area, and to deal effectually with the contents of sewers). Water Industry Act 1991, Section 37 general duties of water undertakers (water companies must maintain an efficient and economical system of water supply); Section 52 – domestic supply duty and Section 55 – supplies for non-domestic use duty.

Note:

a) *The calculated % is rounded to 0 decimal places for assessment against the thresholds below and for reporting*

Calculation

The total number of pollution incidents self-reported by the water company in categories 1 to 3 as a percentage of total incidents (categories 1 to 3) for which the water company is considered responsible in a calendar year as recorded on the Environment Agency's NIRS database (NRW use an equivalent system called ‘Natural Resources Wales Incident Recording System’ WIRS).

Target

The Red/Amber/Green (RAG) assessment is carried out on a single year's results. In 2017 we set out our performance expectations for 2020 to 2025 in the Water Industry Strategic Environmental Requirements (WISER). Relevant extracts from WISER are reproduced in Appendix 3.

Frequency

Annually, based on calendar year.

Thresholds

Green - equal to or greater than 80% and >=90% for PS and WwTW combined.[1]
Amber - less than 80% and greater than 65%.[1]
Red - equal to or less than 65%.

[1]If overall self-reporting percentage >=80% but <90% self-reporting for PS and WwTW combined, then amber score.

2.5 Delivery of the Water Industry National Environment Programme (WINEP) as part of Asset Management Programme (AMP)

This metric covers delivery in the Water Industry National Environment Programme (WINEP) of water quality, water resources and fisheries, biodiversity and geomorphology schemes and investigations. It does not include Event Duration Monitors (EDM) Periodic Review drivers U_MON1, U_MON2, U_MON3, BW_MON, SW_MON or the investigation driver U_INV2 as the number of these schemes are several thousand and would affect the overall figures too greatly.

We will however, continue to assess the delivery of the drivers detailed above and report this in the narrative of the performance report used in the annual performance reviews with each water company. NRW use similar WINEP drivers for schemes in Wales but are all prefixed with a 'W', e.g. 'W_U_MON1'.

We expect water companies to manage delivery. Where a scheme/investigation is delivered earlier than its scheduled date, if that date is in a future financial year (as recorded in the AMP/NEP process), then this should be captured through the alterations process. This process will move the scheme into the correct year for reporting. This will avoid there being more schemes completed than were planned (delivery above 100% will not be possible) and will clearly show non-delivered schemes.

Where a water company fails to deliver a scheme on time a new planned completion date is normally agreed between the Environment Agency and the water company or where agreement is not reached it is set by the Environment Agency. The new date should be no more than 12 months from the original date. Each subsequent year the water company fails to deliver that scheme on time will go against them and be reported as a failing scheme in the EPA.

Where a water company fails to deliver a scheme on time during the year but completes it by a new agreed planned completion date before the end of that AMP year, then for EPA purposes it will still be reported as a non-delivery.

We continue to encourage timely reporting from water companies to us. This facilitates prompt interventions should performance need to improve.

5. Delivery of the Water Industry National Environment Programme (WINEP) as part of Asset Management Programme (AMP)

Definition of measure

The cumulative number of Water Industry National Environment Programme schemes, investigations and monitoring delivered as a percentage against the plan for each 5-year Asset Management Programme (AMP) period, e.g. April 2020 to March 2025. Including water quality, water resources, fisheries, biodiversity and geomorphology schemes and investigations. Periodic Drivers U_MON1, U_MON2, U_MON3, BW_MON, SW_MON and U_INV2 are not included. NRW use similar WINEP drivers for schemes in Wales but are all prefixed with a 'W', e.g. 'W_U_MON1'

Obligation

Environmental laws including the Environmental Permitting (England & Wales) Regulations 2016. The 2016 Regulations apply from 1 January 2017 onwards.

Section 94 – general sewerage duty (duty to provide, improve, extend sewers and to cleanse and maintain sewers and lateral drains so as to effectually drain its area, and to deal effectually with the contents of sewers).

Calculation

Cumulative number of schemes, investigations and monitoring (as described above) delivered under all drivers as a percentage of cumulative total number planned for reporting year and all previous years within the AMP period.

The planned number of schemes, investigations and monitoring have been profiled by each water company and shared with the EA and NRW and delivery will be reported against this data taking into account any agreed changes. In liaison with water companies, this information is recorded by the Environment Agency and Natural Resources Wales and shared with Ofwat annually.

Note:

a) The calculated % is rounded to 1 decimal place for assessment against the thresholds below and for reporting

Target

100% WINEP delivery. The cumulative reported year performance for each water company will be compared to the planned cumulative performance. In 2017 we set out our performance expectations for 2020 to 2025 in the Water Industry Strategic Environmental Requirements (WISER). Relevant extracts from WISER are reproduced in Appendix 3.

Frequency

Annually, based on a financial year performance.

Thresholds

Green - 100% of the WINEP programme has been delivered in the reporting period as a cumulative total for the 5 year period.
Amber - less than 100% and greater than 98% of the WINEP programme has been delivered in the reporting period as a cumulative total for the 5 year period.
Red - less than or equal to 98% of the WINEP programme has been delivered in the reporting period as a cumulative total for the 5 year period.

The Red/Amber/Green (RAG) assessment will be made on a single year's results in the first year of the AMP period and then on cumulative results thereafter, e.g. the last year of the five year AMP period reports on the years 1 through to 5 cumulatively.

2.6 Supply Demand Balance Index (SDBI)

The Supply Demand Balance index (SDBI) metric measures how the actual supply demand balance has performed compared to what is set out in a water company's Water Resources Management Plan (WRMP). It is not compared to Ofwat's targets for companies.

The SDBI is directly relevant to the environment, both in terms of the EA's duty to secure efficient use of water resources and with our role as technical advisor to Defra on the water company WRMPs. NRW has the equivalent duty and role in Wales with the Welsh Government.

Expected performance is for water companies to have a SDBI of 100. If a figure below 100 is reached, the water company must describe actions it is taking to improve its performance as security of supply is at risk. The water company must describe possible impacts on its progress of implementation of its WRMP and may need to report reasons to Defra or Welsh Government ahead of its annual review.

We expect water companies to provide a short commentary on each component of the calculation to explain how it has been calculated and show any differences from their WRMP. We will take this information into account when we assess the SDBI score. Where sufficient data or reasoning has not been supplied we will ask for clarification. As the regulator, we will assess the SDBI and score it in the EPA, taking into account the information provided.

For this new metric the details of the metric definition are set out below. The details of the components of the metric are provided in Appendix 4.

6. Supply Demand Balance Index (SDBI)

Definition of measure

For each water company, in this metric we are assessing how your actual supply demand balance has performed against the design event that your supply in your WRMP is based on. So for example if your design event had happened this past year would you have had enough water to supply your customers. This will be testing the theoretical risk that your customers are facing.

Obligation

Water supply duties under the Water Industry Act 1991, include:

- Section 37 – general duties of water undertakers (water companies must maintain an efficient and economical system of water supply);
- Section 52 – domestic supply duty;
- Section 55 – non-domestic supply duty;
- Section 57 – duty to supply water for fire fighting;
- Section 59 – Public purposes supply duty;
- Section 63AC – interim duty of water undertaker: domestic and non-domestic supply; and
- Sections 66A and 66C – wholesale water supply duties.

Supply duties may be qualified by temporary bans on water use (sections 76-76C Water Industry Act (WIA) 1991), drought orders and emergency drought orders (Water Resources Act 1991, sections 74 and 75).

Calculation

The index is based on the difference between the available headroom (see below) and the target headroom specified in a WRMP for each resource zone. The 'surplus/deficit' is then expressed as a percentage of the sum of distribution input and target headroom.

Available headroom = WAFU (water available for use)(Ml/d) + bulk imports (Ml/d) – bulk exports (Ml/d) – dry year distribution input (Ml/d).

The population in each zone with a headroom deficit is expressed as a percentage of the water company total population. Where the zone is not in deficit, zero should be entered in 'percentage of total population with headroom deficit'. Zonal index is then derived by multiplying the percentage of total population with headroom deficit by the square of the percentage deficit for each zone. This means that the index is a function of the square of the deficit, so that large deficits affecting small zones weigh in the overall index.

Multiply the product for each zone by 100, and sum to produce the overall water company score.

The final water company-wide, SDBI is then calculated as:
(1 – overall total water company score for the zonal index) x 100

The resulting score should be rounded down to the nearest whole number. We expect all water companies to present the calculation of SDBI in full for each resource zone and at company level, not just a single SDBI score. All water companies should use the EA SDBI template spreadsheet to calculate SDBI.

Water companies should submit both the completed spreadsheet and a commentary to explain any performance issues resulting in a score of less than 100, particularly where there are changes from the latest published final WRMP. Where a water company presents both an annual average SDBI and a critical period SDBI score, then we will use whichever is the lowest SDBI score in the EPA. For example, if a water company calculated a SDBI of 100 for annual average and 99 for critical period, we would use the score of 99 in the EPA. The critical periods used in SDBI calculation should be identical to those included in the latest WRMP. For example, if a water company presents a peak

week critical period scenario in its WRMP then we would also expect it to present SDBI for peak week (not another duration scenario) in annual EPA reporting.

Target

Each water company should achieve 100, otherwise it has failed to provide a secure supply of water. In 2017 we set out our performance expectations for 2020 to 2025 in the Water Industry Strategic Environmental Requirements (WISER). Relevant extracts from WISER are reproduced in Appendix 3.

Frequency

Annually based on a financial year.

Thresholds

Green – equal to 100
Amber – less than 100 and equal to or greater than 99
Red – less than 99

We will also ask the water companies to report on 3 additional pieces of supporting information each year on per capita consumption, outage and leakage. This will enable us to get a clearer picture of performance and to be able to work closely with the water company on improving performance. This supporting information does not form part of the SDBI metric.

Per Capita Consumption (PCC)

Record your reporting year average PCC (measured and unmeasured), weighted average PCC and uplifted dry year annual average PCC. You should state whether you consider the year a 'dry year', and describe and explain how your actual PCC compares to your planned dry year.

Outage

Record your actual (recorded or observed) water company wide outage for the reporting year. This data should be the same as that provided for your water available for use (WAFU) calculation for the SDBI. If your outage is higher than your planned outage allowance you should provide a breakdown of your planned and unplanned outage and a commentary around the outage you have experienced and the steps you are taking to reduce outage risk.

Leakage

Record actual leakage for the reporting year. We want to see the comparison of actual leakage verses what you had planned in the company WRMP. Where the leakage has not reduced as planned we require an explanation of why and how the company is going to meet the planned leakage level for the next reporting year and/or the end of the AMP.

2.7 Satisfactory sludge use/disposal metric

We are keeping the satisfactory sludge use/disposal metric suspended for 2021 data year and will not report it publically within the EPA. We will continue to use narrative reporting where appropriate. We are continuing to develop a revised metric definition and are reviewing regulation of sludge management by water companies. We intend to reinstate the metric (with a revised definition) as soon as possible in the future. We continue to work hard to improve understanding, regulation and operational practices of sludge management with the water companies in this complex area.

3.0 Calculations and thresholds of metrics

The thresholds have been calculated using past performance statistics and include our expectations as set out in WISER (see Appendix 3). Table 1 summarises the thresholds.

Table 1 – Thresholds for EPA performance metrics

Performance Metric	Red	Amber	Green
Total pollution incidents (category 1 to 3 from sewerage assets as normalised)	Refer to RAG table in Section 2.1		
Serious pollution incidents (category 1 and 2 from sewerage and water supply assets)	Refer to RAG table in Section 2.2		
Discharge permit compliance (numeric)	<= 98	< 99 and > 98	>= 99
Self-reporting of pollution incidents (category 1 to 3 from sewerage and water supply assets)	<= 65	< 80 and > 65[1]	>= 80 and >=90% for PS and WwTW combined[1]
Delivery of the WINEP as part of AMP (%)	<= 98	< 100 and > 98	100
Supply Demand Balance Index (score)	< 99	< 100 but ≥ 99	100
Satisfactory sludge use/disposal	Metric currently suspended		

[1] If overall self-reporting percentage >=80% but <90% self-reporting for PS and WwTW combined, then amber score.

4.0 Sewer length and transferred assets

4.1 Sewer length and normalisation

Sewer length is used to normalise pollution incidents in the total pollution incidents (sewerage) metric. Water company sewer lengths for 2017/18 are listed in Table 2 and will be used for normalising pollution incident data from 2021 onwards.

Water companies provided the data listed in Table 2 on sewer lengths in May 2019. The December 2019 consultation responses highlighted two minor updates required to mirror with the 2017/2018 figures reported to Ofwat. The figures below are updated to reflect this.

These were the lengths at end of year (2017/2018) and will be used in the normalisation of total pollution incidents, every year for the 5 year period. We do not update the sewer lengths within the 5 year period as we wish to maintain a stable baseline so performance comparison can be made year on year. Sewer lengths per water company do not vary a great deal annually.

Due to the small size of Hafren Dyfrdwy (HD), NRW report performance in a narrative way and not using EPA metrics. HD's sewer length is reported here for reference only.

Table 2 - Sewer length per water and sewerage company

Water company	**Total length of sewers and mains (km) at end year (2017/2018)[2]**
Anglian Water	76,437
Northumbrian Water	30,026
Severn Trent Water	93,525
Southern Water	39,729
South West Water	17,440
Thames Water	108,980
United Utilities	77,339
Wessex Water	34,944
Yorkshire Water	52,292
Dŵr Cymru Welsh Water	32,886 (Wales) & 3,363 (England)
Hafren Dyfrdwy (for reference only)	502

4.2 Transfer of private pumping stations and associated rising mains

The transfer of private pumping stations (PS) and rising mains (RM) (associated with PS) to water companies was completed by 1st October 2016. Sufficient time has now been given for water companies to understand and assess the condition of these assets and implement maintenance plans. Incidents occurring from adopted PS and RMs (associated with PS) will be recorded in the pollution incident metrics from 1st January 2021.

[2] Combined total of legacy sewer and those private sewers transferred in October 2011. This figure is made up of foul sewers, surface water sewers, combined sewers and rising mains.

5.0 Star ratings

5.1 Star ratings definitions

The star ratings applied to each water company after assessment of the 6 EPA metrics are based on the following definitions:

4 Star - 5 or more green metrics and no red metrics
3 Star - 1 or more green metrics and no red metrics
2 Star - 1 or 2 red metrics and/or zero green metrics
1 Star - more than 2 red metrics

Appendix 5 details all of the possible metric RAG scores with the resulting star ratings in a look up table.

In the future, if the number of EPA metrics is changed, we will use different star ratings definitions. Appendix 6, 7 and 8 detail the definitions and look up tables for 6 metrics with one core metric, 7 metrics with one core metric and 8 metrics with one core metric. Section 5.2 describes the core metric approach.

5.2 Core metric approach

We will be introducing the use of a core metric (discharge permit compliance metric). Initially for one year it will be a shadow assessment (2021 data). Thereafter it will be applied to the live published EPA. This core metric is required to be green for a water company to achieve a 4 star rating. This requirement is in addition to achieving the defined number of green metrics and no red metrics for 4 star rating. Where the core metric is not green, then a 3 star (or lesser rating) will be given based on the star rating criteria.

We may consider additional or changed core metrics in the future. For instance we consulted on the use of 2 core metrics (both discharge licence compliance and abstraction and impoundment licence compliance for use in 4 star and 3 star ratings). Based on the shadow use of the abstraction and impoundment licence compliance metric we are not using it as a core metric currently. We may introduce further core metrics for 2026 to 2030.

The EPA methodology will be re-issued in advance of significant changes.

5.3 Star ratings description

We consulted with the industry on the star ratings descriptions terminology and they remain unchanged. The table below sets out the terminology we will use.

The star ratings descriptions are:

Star Rating	Description
4	Industry leading company
3	Good company
2	Company requires improvement
1	Poor performing company

We intentionally encourage achievement of green status with the star rating definitions. Where a metric is rated red it shows a marked underperformance and this is highlighted in the star rating system to influence the necessary rapid improvement that is required.

6.0 Governance of data and information reporting from water companies to Environment Agency

We expect water companies to have Board sign off of the data and information before it is formally submitted to the regulator. We do not propose to specify the exact nature of the process for water company Board approval on environmental performance reporting. We appreciate that processes in place to meet Ofwat's requirements are contributing to assurance.

7.0 Reporting for 2021 to 2025 data

Every 5 years, as well as reviewing the EPA, we also review the reporting we do to improve it and focus attention on water companies meeting statutory obligations and our expectations.

7.1 Data reporting

We will produce and publish individual, detailed, factual, annual reports for each of the water companies, called data reports. These will contain data on each of the metrics for each of the water companies over several years. We will publish these reports externally annually alongside and to support the main sector published report. This will provide more accessible information for the public and other stakeholders, as well as assist in performance reviews with the water companies. We published 2019 data on 2 October 2020.

7.2 Reservoir safety reporting

Following consultation we will be including reservoir safety in future reporting. Reservoirs are a critical part of our national infrastructure for water management. The safety of reservoirs is the responsibility of their owners.

The Reservoirs Act 1975 governs reservoir safety in England and Wales. It applies to all large raised reservoirs, depending on their capacity for water above natural ground level. The purpose of the Act is to reduce the risk of an uncontrolled release of water due to a reservoir failure that could cause loss of life and/or extensive damage.

Reservoir safety is the responsibility of the owner. The appropriate enforcement authority regulates the law. They have powers to monitor compliance with the Act, supporting owners to have oversight of their reservoirs, to comply with the Act, and to take enforcement action against those owners who fail to comply.

In England, a large raised reservoir is determined by the capacity threshold being 25,000m^3. The Environment Agency is the enforcement authority. Its National Reservoir Safety team ensures that reservoir owners comply with the Reservoirs Act and takes enforcement action where appropriate. There are around 2,000 large raised reservoirs registered in England, belonging to 770 different owners. Currently, 664 of these reservoirs are owned by 18 Water Companies.

In Wales, a large raised reservoir is determined by a lower capacity threshold of 10,000m^3. Natural Resources Wales (NRW) is the enforcement authority with the same duties and powers held as the Environment Agency in England.

NRW and Environment Agency National Reservoir Safety Teams ensure that each reservoir has a supervising engineer appointed at all times, that the reservoir is periodically inspected and that any essential safety works identified in the inspection report are carried out.

From 2022 we will report on the total number of non-compliant reservoirs by water company, as recorded by quarters at any time in the calendar year (1 January to 31 December) and the number that remain non-compliant at the end of the calendar year starting with 2021 data. We will report this as an actual figure. We aim to report for 2021 data onwards, first reporting publically in summer/July 2022 on 2021 data.

8.0 Forward look and future reporting

8.1 Forward look

Water companies should perform in line with statutory obligations and Environment Agency (EA) expectations. EA WISER expectations for the water companies for 2020-2025 are set out in Appendix 3. Statutory obligations should be met and stretching targets help motivate and facilitate continuous improvement and innovation. For our part, we will continue to regulate in a fair and transparent way and improve this where necessary. We will:

- Use the current EPA in the annual performance review meetings between EA Executive Director of Operations and water and sewerage company Chief Executive Officers (CEOs) every summer.
- Publish the ‘Environmental Performance of the water and sewerage companies in England’ report, annually, usually in July.
- In 2024/25, we will review the EPA for the next 5 year period covering data for 2026-2030 inclusive. Please see Section 8.2 for more information on Future Reporting
- Continue to work with other bodies on performance measurement and assessment, e.g. Ofwat, Natural Resources Wales (NRW), Consumer Council for Water (CCWater) and Drinking Water Inspectorate as appropriate. We are involved in the Water UK Discover Water website with partners. Liaison with Defra will also be continued. NRW continue to liaise with Welsh Government.

We may also look to include reporting on catchment management initiatives and climate resilience in the future, if appropriate. These may or may not be EPA metrics. Narrative reporting may be appropriate to cover these and other topics. In addition, the consultation responses highlighted drought management as a potential future topic for reporting and

encouraged seeking opportunities to increase the assessment of environmental impact in current or future metrics.

8.2 Future reporting

We will next review the reporting we do and EPA design in 2024/2025 for implementation for 2026 to 2030 data. This will include keeping, changing or dropping existing metrics and development of new or additional metrics, e.g. for waste management permit compliance and flood resilience. We will also take the opportunity to review our internal and external reporting of water company performance, for water and sewerage companies and water only companies as required.

We are developing further metrics for use in a shadow capacity (not published) before live implementation in the published EPA for 2026 data onwards. This includes, but may not be limited to:

- Flow compliance for discharge permits
- Compliance with descriptive discharge permit conditions
- Waste management permit compliance metric
- Water company flood resilience metric

8.2.1 Flow compliance for discharge permits

Overflow operation and flow passed forward for treatment monitoring is increasingly being installed at Waste water Treatment Works (WwTW) across the sector, this will allow us to assess storm overflow operation compliance at WwTW more easily. As well as numeric limits which control discharge quality, WwTW also have Dry Weather Flow (DWF) limits which control their discharge volume and we are simplifying the method used for assessing DWF compliance. So for 2026 onwards we should be in a position to include DWF and overflow operation at WwTW compliance within the discharge compliance metric (or separately if appropriate). This will be beneficial in further protecting the environment. We are working to significantly enhance compliance regulation and data reporting processes to ensure timely and robust data, based on clear compliance methodologies.

8.2.2 Compliance with descriptive discharge permit conditions

We will consider this for the next reporting period 2026 to 2030 and define it and consult on it during the EPA review in 2024/25 in advance of reporting on 2026 to 2030 data. We may include the compliance reporting either within an existing EPA metric or for reporting separately. For 2026 to 2030 we will consider reporting on compliance with descriptive conditions of wastewater discharge permits that have numeric conditions. For example, descriptive or non-numeric permit condition breaches could include those associated with the management system condition. We may also include non-compliances of Operator Self Monitoring (OSM) conditions.

8.2.3 Waste management permit compliance

We are currently developing a metric with a view to having it in place for 2026 data reporting. It will cover compliance with waste management permits and exemptions held by water and sewerage companies. This metric requires several years work issuing permits across the sector before it can become operational. This work has started, e.g. for water company

activities under the Industrial Emissions Directive (IED). Development of the metric has started and we are working with companies. We will use it in a shadow capacity when ready, to test and refine it and the processes that under pin it, before implementation on 2026 data for reporting publically in 2027. In developing the metric, we will assess what breaches will be included in the assessment, focussing on the main environmental impacts and potentially including for example, pollution incidents, emission limit breaches and odour.

8.2.4 Water company flood resilience

Ideas for a metric for flooding resilience have been discussed in the past and will now be pursued further in the context of the National Flood and Coastal Erosion Risk Management Strategy for England. We aim to develop the metric and trial it in a shadow capacity, to refine it, before implementation in 2026.

Appendix 1: EPA Background

The Environmental Performance Assessment (EPA) was introduced by the Environment Agency in 2011 as a non-statutory tool for comparing performance between water and sewerage companies (WaSCs). It uses measurable environmental metrics to provide a meaningful comparison of performance across the nine WaSCs operating in England. Since its formation in 2013, Natural Resources Wales also use it to assess performance of Dŵr Cymru Welsh Water. The EPA forms part of a wider assessment, including discussion of strategic and non-metric performance at annual review meetings with water company Chief Executives and ongoing engagement to influence better performance where necessary. It is reported annually.

The 2016 to 2020 edition of the EPA consisted of seven metrics (one is suspended from 2018 onwards leaving 6 metrics):

1. Total pollution incidents (categories 1, 2 and 3) for the sewerage system (normalised)
2. Serious pollution incidents (category 1 & 2) for the sewerage system (normalised)
3. Numeric discharge permit compliance
4. *Satisfactory sludge disposal – metric suspended from 2018 data year onwards and reported in report narrative*
5. Percentage self-reporting of pollution incidents (categories 1, 2 and 3) for sewerage and water supply
6. National Environment Programme (Asset Management Programme) scheme delivery
7. Security of Supply Index

The Environment Agency's latest performance report including the EPA, covering the nine water and sewerage companies operating in England, was published in October 2020 on 2019 data - 'Environmental performance of the water and sewerage companies in 2019' report, which can be found here: GOV.UK. It was delayed from the usual July reporting due to the coronavirus pandemic.

Annually, NRW release reports on the environmental performance of Dŵr Cymru Welsh Water (DCWW) using the EPA and on Hafren Dyfrdwy (HD) (not using the EPA due to the small size of the company). The DCWW report can be found here and the HD report here.

In October 2017, we set out our performance expectations for 2020 to 2025 in the Water Industry Strategic Environmental Requirements (WISER) with Natural England. Extracts from WISER are reproduced in Appendix 3.

The five year Periodic Review cycle planning periods are used as the basis for the EPA in order to ensure, as much as possible, that targets and baseline calculations are kept consistent within the period. This enables all water companies, in theory, to achieve green. In theory, investment within the period culminates in water companies achieving higher performance at the end of the period. All metrics in the EPA are equally weighted. Thresholds for performance for 2016 to 2020 were based on statistical analysis of 2012 to 2014 data across the water and sewerage companies.

Appendix 2: Abstraction and impoundment licence compliance – shadow metric

The water companies abstract significant amounts of water from rivers and aquifers each year, and they own and operate numerous water impoundments. These have the potential to impact the water environment and other lawful water users.

Since 2016 we have included this abstraction and impoundment performance within the narrative section of the annual, published performance report, using one figure for overall licence compliance across all water and sewerage companies in England.

This metric will be used as a shadow metric (not published) from the start of the 2021 calendar year. We then plan to introduce this as a live EPA metric later in the EPA cycle once the process of data submission and compliance checking is working consistently and effectively.

We expect 100% compliance with abstraction and impoundment licences in line with legal requirements, but we appreciate it will take time for both ourselves, and the water companies, to adjust the data submission and compliance checking processes to allow accurate reporting for this new metric.

Abstraction and impoundment licence compliance – shadow metric

Definition of measure

Performance of all abstraction locations, and impoundment works, in accordance with the relevant abstraction and impoundment licences held by each water company for public water supply purposes.

Obligation

Compliance with abstraction and impoundment licences granted under the Water Resources Act 1991 (amended by the Water Act 2003).

Calculation

(B-A)/B * 100 (%) where:
A is No. of abstractions and impoundments confirmed failing in calendar year; and
B is No. of abstractions and impoundments on EA / NRW register during calendar year (in force).

An abstraction will be confirmed as failing for the following breaches of numeric limits:

- Exceeding the daily quantity authorised by the licence.
- Exceeding the annual quantity authorised by the licence.
- Below compensation release flow requirement as described in a licence.

An abstraction will be confirmed as failing for the following breaches of descriptive conditions:

- Failure to submit a record of abstracted quantities (abstraction returns) by the date specified by us.
- Failure to comply with any fish, or eel, screening requirement specified by the licence.

An impoundment will be confirmed as failing for the following breaches of numeric limits:

- Below compensation release flow requirement as described in a licence.
- Failure to comply with any fish, or eel, screening requirement specified by the licence.

Notes:

a) the calculation result is rounded to 1 decimal place for assessment against the thresholds below and for reporting.

b) all breaches described above are included in the metric regardless of CCS score (1-4) given to each breach.

Target

Each water company should achieve 100%. The thresholds set are based on our expectations of the water companies. In 2017 we set out our performance expectations for 2020 to 2025 in the Water Industry Strategic Environmental Requirements (WISER). Relevant extracts from WISER are reproduced in Appendix 3.

Frequency

Annually based on a calendar year, except for annual abstraction volume compliance where the abstraction licence specifies a different definition of the period of the year e.g. financial year (April to March), or water year (October to September).

Thresholds

Green - equal to or greater than 98.0%.
Amber - greater than 95.0% and less than 98.0%.
Red - equal to or less than 95.0%.

Appendix 3: Summary of our expectations of water companies (2020 to 2025).

The following is extracted from the joint Environment Agency and Natural England Water Industry Strategic Environmental Requirements (WISER).

Key:
S – Statutory obligations
S+ - Statutory plus obligations
N- Non-statutory actions

Statutory obligations (S):

Statutory obligations principally arise from legislative requirements and the need to comply with obligations imposed directly by statute or by permits, licences and authorisations granted by the Secretary of State, the Environment Agency or other body of competent jurisdiction. Other statutory obligations include ministerial directions and meeting specific planning requirements. While it is important to understand the costs and benefits of measures needed, these statutory obligations must still be achieved.

Statutory plus obligations (S+):

Statutory plus obligations are categorised as legal requirements where economic evidence forms part of the decision making process, that is the balance of costs and benefits, and affordability considerations. In cases where action is considered disproportionately expensive to meet statutory plus obligations, alternative objectives or timescales to meet them may be set.

Non-statutory actions (NS):

Some expectations are not driven by statutory obligations. There may be a public need but this may not be underpinned by a specific Act or piece of legislation. You should demonstrate that there is an environmental requirement and/or customer support and that such investments provide best value for customers over the long term. Effective customer engagement should reveal whether customers (and which types of customers) want to see further environmental improvements, and over what timescale.

Excellent performance:

Regulatory compliance and sludge

1.	A plan in place to achieve 100 per cent compliance for all licences and permits.	S
2.	100% compliance with environmental permit conditions at waste water treatment works (WwTWs) with descriptive not numeric limits.	S
3.	Serious pollution incidents must continue to trend towards zero.	S

4.	Trend to minimise all pollution incidents (category one to three) by 2025. There should be at least a 40% reduction compared to numbers of incidents recorded in 2016.	S
5.	Effective management of transferred private sewers and pumping stations with low levels of pollution incidents.	S
6.	No D, E, or F rated sites under Operational Risk Appraisal OPRA for waste related sewerage service Environmental Permitting Regulations permits.	S
7.	Compliance with flow requirements, including MCERTS certification, at WwTWs	S
8.	High levels of self-reporting of pollution incidents with at least 80 per cent of incidents self-reported by 2025. More than 90% of incidents self- reported for WwTWs and pumping stations.	NS
9.	Business plans include all measures identified within the Water Industry National Environment Programme and these are planned well and completed to agreed timescales and specification.	S
10	Sample and provide data in relation to self-monitoring under Operator Self-Monitoring (OSM), Urban Waste Water Treatment Directive (UWWTD), Flow monitoring and UV disinfection.	S
11	Manage sewage sludge treatment and re-use so as not to cause pollution to land, surface water or groundwater.	S

Improving Resilience:

The following actions are extracted from a longer list contained in WISER:

Flood Risk Management:

3.	Comply with statutory reservoir safety requirements	S

Future Drainage:

4.	Ensure compliance with permitted flow to full treatment settings	S

Water Resources Security of Supply:

1.	Solutions to meet water resources management plan outcomes or measures to protect the environment from the supply-demand component of business plans.	NS
2.	Assess resilience of your water supply system to predicted droughts and other non-drought water supply hazards.	NS
3.	Measures to reduce demand and per capita consumption.	NS
4.	Achieve a downward trend for leakage with rates at or below the sustainable economic level of leakage.	NS

5.	Assess universal metering in water stressed areas.	S
6.	Ensure agreed and up to date plans are in place to manage a drought.	S
7.	Demonstrate that Defra's Guiding principles for water resources planning have been met.	NS
8.	Incorporate sustainability changes into supply forecasts.	NS
9.	Current abstractions and operations, and future plans support the achievement of environmental objectives.	S, S+

Appendix 4: Supply Demand Balance Index (SDBI) metric - definition of main calculation components

Component	Units	Definition
Available Headroom	Ml/d	Available headroom = WAFU + Bulk imports – Bulk exports – dry year DI
Water Available for Use (WAFU)	Ml/d	Clearly state the total water available for use (from your own sources) in each Water Resource Zone (WRZ) taking account of any change to deployable output, outages, raw water losses and treatment works losses. Internal imports and exports between zones should be included within your WAFU figure
Deployable Output (DO)	Ml/d	This must be your deployable output for each Dry Year Annual Average Water Resource Zone (DYAA WRZ) as you would calculate for your WRMP. If there has been any change from the WRMP this should be explained e.g. DO written down due to long term outage
Outage	Ml/d	This must be recorded or observed outage for the year. Do not use your planned allowance from the WRMP unless you have no recorded or observed information – if this is the case you must provide an explanation of why.
Raw water losses and treatment water losses	Ml/d	This must be recorded or observed losses for the year. Do not use your planned allowance from the WRMP unless you have no recorded or observed information – if this is the case you must provide an explanation of why.
Internal imports and exports	Ml/d	Internal imports and exports between zones should be within your WAFU figure. They should be optimised across the zones, not necessarily observed/recorded as likely to be different in a dry year, but should not be double counted. If the numbers are different to WRMP then you will need to explain the changes.
Bulk Imports	Ml/d	This is the maximum import that you could receive according to your contract/agreement with the donor company unless there is a restriction specific to this year. So it is the water available to you - NOT a theoretical maximum. If there is an outage on the infrastructure, this should be included in your outage figure. If this agreement has changed mid year then this will be different from the WRMP tables and must be explained
Bulk Exports	Ml/d	This is the maximum export that you could provide according to your contract/agreement with the receiving company OR if it is different the value in your WRMP tables. If this agreement has changed mid year then this will be different from the WRMP tables and must be explained

Dry Year Distribution Input (DI)	Ml/d uplifted	This is your reporting year planned Distribution Input Or your Actual Distribution Input (whichever is highest) DI = Total water delivered to household and non-household properties + water taken unbilled + distribution system operational use + total leakage.
Reporting year Distribution Input (DI)	Ml/d	As per Water Resource Planning (WRP) Guideline definition, this is your zonal out-turn actual Distribution Input for the reporting year.
Target Headroom	Ml/d	Water companies can use either their dry year WRMP target headroom or an adjusted headroom figure to represent the reporting year. If you use a different figure to that in your final WRMP planning table then please provide an explanation of this change in your company SDBI commentary. Water companies can provide an adjusted headroom figure where they have adjusted headroom downward to reflect lower uncertainty in the reporting year (as the year has already happened). Where this is the case, companies must produce satisfactory justification and evidence to show how and why headroom is reduced in the reporting year. Where a company has adjusted its headroom in this way, we expect headroom to still be reasonable and not entered as zero/negligible. If no figure is provided, we will use the WRMP dry year target headroom allowance in our assessment.
Zonal Population	Thousands - estimated	As per Water Resource Planning (WRP) Guideline definition, either from your latest published final WRMP or updated to reflect any changes (via annual reviews) since publication. If you use a different figure to that in your final WRMP planning table then please provide an explanation of this change in your company SDBI commentary.

Appendix 5: 6 metric star rating look up table

The star ratings applied to each water company after assessment of the 6 metrics are:

Number of EPA metrics			EPA star rating
Green	Amber	Red	
6	0	0	4*
5	1	0	4*
5	0	1	2*
4	2	0	3*
4	1	1	2*
4	0	2	2*
3	3	0	3*
3	2	1	2*
3	1	2	2*
3	0	3	1*
2	4	0	3*
2	3	1	2*
2	2	2	2*
2	1	3	1*
2	0	4	1*
1	5	0	3*
1	4	1	2*
1	3	2	2*
1	2	3	1*
1	1	4	1*
1	0	5	1*
0	6	0	2*
0	5	1	2*
0	4	2	2*
0	3	3	1*
0	2	4	1*
0	1	5	1*
0	0	6	1*

Appendix 6: 6 metric with one core metric star rating look up table

The star ratings applied to each water company after assessment of the 6 metrics with one core metric are based on the following definitions:

4 Star - 5 or more green metrics and no red metrics, including core metric at green
3 Star - 1 or more green metrics and no red metrics
2 Star - 1 or 2 red metrics and/or zero green metrics
1 Star - More than 2 red metrics

The core metric is required to be green for a water company to achieve a 4 star rating. This requirement is in addition to achieving the defined number of green metrics and no red metrics for 4 star rating. Where the core metric is not green, then a 3 star (or lesser rating) will be given based on the star rating criteria.

Number of EPA metrics			Single core metric green?	EPA star rating
Green	Amber	Red		
6	0	0	Yes	4*
5	1	0	Yes	4*
5	1	0	No	3*
5	0	1	N/A	2*
4	2	0	N/A	3*
4	1	1	N/A	2*
4	0	2	N/A	2*
3	3	0	N/A	3*
3	2	1	N/A	2*
3	1	2	N/A	2*
3	0	3	N/A	1*
2	4	0	N/A	3*
2	3	1	N/A	2*
2	2	2	N/A	2*
2	1	3	N/A	1*
2	0	4	N/A	1*
1	5	0	N/A	3*
1	4	1	N/A	2*
1	3	2	N/A	2*
1	2	3	N/A	1*
1	1	4	N/A	1*
1	0	5	N/A	1*
0	6	0	N/A	2*
0	5	1	N/A	2*
0	4	2	N/A	2*
0	3	3	N/A	1*
0	2	4	N/A	1*
0	1	5	N/A	1*
0	0	6	N/A	1*

Appendix 7: 7 metric with one core metric star rating look up table

The star ratings applied to each water company after assessment of the 7 metrics with one core metric are based on the following definitions:

4 Star - 6 or more green metrics and no red metrics, including core metric at green
3 Star - 3 or more green metrics and no red metrics
2 Star - 1 or 2 red metrics and/or 2 or less green metrics
1 Star - 3 or more red metrics

The core metric is required to be green for a water company to achieve a 4 star rating. This requirement is in addition to achieving the defined number of green metrics and no red metrics for 4 star rating. Where the core metric is not green, then a 3 star (or lesser rating) will be given based on the star rating criteria.

Number of EPA metrics			Single core metric green?	EPA star rating
Green	Amber	Red		
7	0	0	Yes	4*
6	1	0	Yes	4*
6	1	0	No	3*
6	0	1	N/A	2*
5	2	0	N/A	3*
5	1	1	N/A	2*
5	0	2	N/A	2*
4	3	0	N/A	3*
4	2	1	N/A	2*
4	1	2	N/A	2*
4	0	3	N/A	1*
3	4	0	N/A	3*
3	3	1	N/A	2*
3	2	2	N/A	2*
3	1	3	N/A	1*
3	0	4	N/A	1*
2	5	0	N/A	2*
2	4	1	N/A	2*
2	3	2	N/A	2*
2	2	3	N/A	1*
2	1	4	N/A	1*
2	0	5	N/A	1*
1	6	0	N/A	2*
1	5	1	N/A	2*
1	4	2	N/A	2*
1	3	3	N/A	1*
1	2	4	N/A	1*
1	1	5	N/A	1*
1	0	6	N/A	1*
0	7	0	N/A	2*
0	6	1	N/A	2*
0	5	2	N/A	2*
0	4	3	N/A	1*
0	3	4	N/A	1*

0	2	5	N/A	1*
0	1	6	N/A	1*
0	0	7	N/A	1*

Appendix 8: 8 metric with one core metric star rating look up table

The star ratings applied to each water company after assessment of the 8 metrics with one core metric are based on the following definitions:

4 Star - 7 or more green metrics and no red metrics, including core metric at green
3 Star - 5 or more green metrics and no red metrics
2 Star - 1 or 2 red metrics and/or 4 or less green metrics
1 Star - 3 or more red metrics

The core metric is required to be green for a water company to achieve a 4 star rating. This requirement is in addition to achieving the defined number of green metrics and no red metrics for 4 star rating. Where the core metric is not green, then a 3 star (or lesser rating) will be given based on the star rating criteria.

Number of EPA metrics			Single core metric green?	EPA star rating
Green	Amber	Red		
8	0	0	Yes	4*
7	1	0	Yes	4*
7	1	0	No	3*
7	0	1	N/A	2*
6	2	0	N/A	3*
6	1	1	N/A	2*
6	0	2	N/A	2*
5	3	0	N/A	3*
5	2	1	N/A	2*
5	1	2	N/A	2*
5	0	3	N/A	1*
4	4	0	N/A	2*
4	3	1	N/A	2*
4	2	2	N/A	2*
4	1	3	N/A	1*
4	0	4	N/A	1*
3	5	0	N/A	2*
3	4	1	N/A	2*
3	3	2	N/A	2*
3	2	3	N/A	1*
3	1	4	N/A	1*
3	0	5	N/A	1*
2	6	0	N/A	2*
2	5	1	N/A	2*
2	4	2	N/A	2*
2	3	3	N/A	1*
2	2	4	N/A	1*
2	1	5	N/A	1*
2	0	6	N/A	1*
1	7	0	N/A	2*
1	6	1	N/A	2*
1	5	2	N/A	2*
1	4	3	N/A	1*
1	3	4	N/A	1*
1	2	5	N/A	1*

1	1	6	N/A	1*
1	0	7	N/A	1*
0	8	0	N/A	2*
0	7	1	N/A	2*
0	6	2	N/A	2*
0	5	3	N/A	1*
0	4	4	N/A	1*
0	3	5	N/A	1*
0	2	6	N/A	1*
0	1	7	N/A	1*
0	0	8	N/A	1*