INDUSTRY COMMENT

THE EPA: TIME FOR A RETHINK

Ahead of the Environment Agency's consultation, Martin Hurst makes the case for a fundamental reset on how water company performance for the environment is assessed.

Every year the Environment Agency (EA) publishes its assessment of how water companies are performing. The 'Environmental Performance Assessment' (EPA) is a 1–4 star rating based on a range of key regulatory metrics, such as the number of severe pollution incidents. It has evolved since it was first created in 2011 – drawing on a previous Ofwat regime (see box – Before the EPA). The EA has said it will shortly be consulting on further changes.

So now is a perfect opportunity to step back and ask what a system looking at environmental performance should look like. This may help organisations respond to the EA's consultation exercise. A major point is that environmental regulation and metrics are meant to lead to healthy, resilient, biodiverse outcomes. Any assessment is only a means to an end!

Key points

- *The Environment Agency is reviewing the EPA during something of a crisis in parts of the water industry and public distrust in both water companies and regulators. This is compounded by systematic failures to improve the water environment by multiple stakeholders. The EA almost seems to be using the EPA to improve its reputation as a water regulator rather than to restore wider trust or improve the environment. This trust is important not just to the sector, but also because without trust it will be harder to work with customers – to use less water and wet wipes for example – and with other partners and investors.*
- *The public does want some at least of the existing information to be published. Companies' performance in terms of the regulatory requirements has not been good enough.*
- *But the EPA is an asset focussed assessment of performance against numeric regulatory compliance metrics. There is little about what a company is doing to improve (or worsen) the water or the wider environment, let alone the contribution of other polluters such as farmers. It is a partial picture and at worst it is positively misleading.*
- *Even on assets alone, there is little assessment of wider impacts: building new sewage storm tanks can reduce storm overflows from sewerage but will increase carbon emissions (concrete is very carbon intensive). While alternative approaches to stop storm water getting into the sewers in the first place may be less certain, they can also reduce local flood risk and involve less carbon – but these approaches are not covered by the EPA.*

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KEY CONSIDERATIONS FOR A FUTURE EPA

Q: What do the public and stakeholders want to know?

The public and stakeholders are genuinely concerned about discharges of untreated sewage – even the 'nuance' as to whether these are legal (permitted), or illegal is relatively unimportant to many.

Those of us who care about the water environment have to accept that there is an ethical and emotional dimension here – it 'feels' wrong to allow untreated sewage into rivers and onto beaches, even if some discharges have next to no effect and the run-off from the chicken farm or industrial estate next door is worse for the river.

Equally the water companies have a deficit of trust with the public. Showing how far they are doing what they say has an important place in reporting and in rebuilding trust.

That said, it is important – particularly given the current media 'feeding frenzy' on sewer overflows – that Government, regulators and companies look forward rather than simply being in reactive mode. There is a duty on all of us to educate and to address the basic problem of the quality of water in rivers and on coasts and their safety for bathing. Ultimately, we need to favour outcomes (better water quality, safer waters for the public), over process (number of discharges etc). The recent report from the Office of Environmental Protection, criticising the EA and Defra for the lack of improvement in water quality, is an important reminder of what happens when mitigating short term public opinion overrides forward looking action.

And the same people who care about sewer overflows also care about impacts on public health and water quality – not to mention carbon and local flooding. This wet winter has seen an increase in sewer overflows, but it's also seen some of the worst flooding in a decade. The EA rightly have a tough internal target on moving to net zero: they need to lead this agenda with companies as well. And the EA is not just a regulator, it is also the national flood agency: water company options which also reduce flood risk is something it ought to care about.

Many companies, for all their faults, are working on peatland, community and catchment approaches which secure these and other benefits along with improvements to the water environment, which the EPA does not consider at all.

Q Should the focus be on outcomes?

How far do EPA figures represent improvements in the water environment? In short, not all that much – our work shows that some countries and sectors get a better balance.

To take a step back: the quality of water is determined by many things: unpermitted and (much more prevalent) permitted sewer overflows, agricultural pollution, run off from roads and industrial estates, the extent of abstraction of water (for public water supply and for irrigation), the weather, local geology etc. Equally it can be improved by, in some cases, reducing sewer overflows, but also by better treating sewage, reducing abstraction, creating filters such as reed beds, reducing pollution from agriculture and run off from roads, reducing soil erosion, and improving the flow of rivers (e.g. by replacing concrete banks with natural meanders).

Overflows from sewers themselves can be reduced not only by building bigger and more storm tanks but also stopping the water from running into the sewers in the first place (e.g. by sustainable drainage and fitting rain gardens to take run off from flat roofs).

Not all of these are under the control of water companies. But many are or can be. If it is more cost effective for a water company to work with a farmer to reduce pollution than to put more and more concrete into storm tanks or even perhaps to spend more money on their own assets to improve compliance, then a proper environmental performance assessment needs to reflect and encourage this, rather than implicitly penalising it. Such less expensive solutions benefit the bill payer too!

Q How do we differentiate between 'trend' and 'noise'?

With apologies for lapsing into statistical jargon, on any target what we really need to know is whether things are getting better. To do this requires two things:

a) An ability to compare like-for-like across years – so what is recorded on, say, pollution incidents mean the same thing over a number of years.

b) An ability to separate the impact of things such as weather which vary across years ('noise') from the underlying pattern ('trend'). The winter of 2023 has seen a big increase in the number of recorded sewage spills. But this is mainly due to the amount of rain. Concentration on one year like this will however be taken by many people as a sign that the companies have got worse.

The approach to the EPA does not help with either of these things.

Q How should water companies best be incentivised?

As Governments have found out to their cost over the past 30 years, there are two main problems with targets:

a) They concentrate on what can be measured rather than what ultimately matters.

b) They distort behaviour: towards meeting the precise definition of targets, away from things which are not included in the targets, or which fall outside the precise definition.

To give an example from the NHS, a focus on reducing the number of people facing waits for triage in A&E of over four hours is in many ways admirable. But it could mean that priority is given to someone who has been waiting three hours, over someone who has already been waiting for over four hours. It could be achieved at the expense of putting the same money into finding beds for people or on public health, which stops people getting into A & E in the first place – but only over a five to ten year period.

So, while targets are important, we must look at the behaviours they do and do not promote. In water this means we need to be aware that targets on asset condition and compliance, without complementary targets on improving the water environment, will inevitably lead to a 'compliance mentality' and to companies seeking to improve their EPA ratings rather than to improve the water environment. Equally a focus on category 1 and 2 incidents may have led companies to seek to record incidents as category 3 or 4 (or persuade the EA of this).

Q What should we be trying to achieve, and how might regulators best pursue this?

Our assessment is that the EA, driven in part by the media focus on sewer overflows – has become excessively compliance orientated. This may of course reflect a political steer.

We have argued elsewhere – for example in our 'Fair For The Future' project – that what is needed is a risk-based regulatory approach, such as used by the Drinking Water Inspectorate (and indeed by the EA itself for industrial pollution control), and an outcome-based approach – based on improving the environment. One could argue at the margins that the category 1-4 rating for pollution incidents nods in the risk-based direction. But much else of the EPA does not, and even the 1-4 rating does not really place an emphasis on the long-term impact on the water body where the pollution occurs.

We would now go further. Before defining a new set of EPA metrics, we need more debate on what government and the EA ought to achieve – which we think should be a better water environment and only then should we set new metrics.

Finally, regulation and targets must incentivise performance improvements, even if they do not result in a formal improvement from, say, three to four stars. It is important that poor but improving companies are not 'kicked while they are down'.

INDUSTRY COMMENT *continued*

Many people are only concerned about risk from pollution because of its impacts on public health and the environment. The specific objection to sewer overflows is partly because people believe them to result in dirty and unsafe rivers and beaches. The EPA needs to be fundamentally rebalanced towards these outcomes and also reflect other ways of improving the quality and safety of water bodies such as 'nature-based' solutions.

There doesn't seem to be enough thought about how concentration on EPA figures will impact on company performance and culture. The profile of the EPA means that companies will inevitably tend to focus on specific assets to improve their ratings, rather than prioritise asset interventions according to their impact or move towards other actions they could take to improve the water environment. This is in part because the profile of the EPA ratings impacts on reputation, a reputation which is important to attract investors to finance the £100bn asset investment proposed over the next five years.

This is compounded by the EA's water industry national environment programme (WINEP). The programme sets perhaps £20bn of spend over the next five years and seems to be focusing on concrete/chemical solutions rather than nature and community approaches: the latter are less certain but would unlock wider benefits. We doubt that much spend on concrete and chemicals can in fact be delivered.

There is an important link to 'regulatory culture'. A risk-based approach, such as adopted by the Drinking Water Inspectorate, and a focus on outcomes would have major benefits. This is in part true for Ofwat as well as the EA: neither the current EPA nor Ofwat's proposed outcome delivery incentives in this area seem to incentivise the right company behaviours or offer much in the way of risk-based thinking. We need those two regulators to unite so that decisions made by either need to be part of an agreed approach.

Finally, there is a danger that the inevitable concentration on annual ratings will ignore more important underlying trends in performance. Data from 2023 will show high levels of spills, because of the wet winter. That won't tell us if things are getting better or worse. This is compounded by frequent changes in definition so we can't compare like with like: while raising the bar is laudable, we also need more objective and consistent assessment of impact.

Fundamental rethink

In summary, there is a case for a fundamental rethink. While there are elements of the EPA which remain important, we need to take a fundamental step back: to think about what the nation and the government are trying to achieve in terms of the environment, how we want companies to behave, and the regulatory culture we wish to adopt (see Key considerations for a future EPA).

Given that a new EPA needs to last for five years, we would suggest that there is considerable merit in giving a new government, of whatever colour, time to formulate its approach, to be able to take precisely this five-year view.

Our view on what we might add/take away from the EPA is as follows. We do need reporting, and probably against no more than a dozen different measures to enable the public to clearly see what is happening. Some of these measures, such as number of high consequence pollution incidents, should probably remain in the EPA.

We would split the EPA metrics into three parts – perhaps four measures in each:

Compliance with regulations/good or otherwise operation of the wastewater network, abstraction from vulnerable rivers, per capita consumption in a company's area.

Impact/outcome metrics (e.g. how much have the waterbodies in a company's patch improved over time)

Wider benefits or disbenefits: carbon footprint (including from the supply chain – 'scope 3'), wider biodiversity improvement, company impact on local flooding, place-based approaches such as working with communities.

We would also support including water only companies in the metrics – perhaps focusing on abstraction, leakage and per capita consumption. TWR

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BEFORE THE EPA

The EPA as we now know it was first introduced in 2011, with one major revision since then. There have however been further ongoing changes – for example to toughen some of the definitions.

Before 2011 the ground was covered in Ofwat's annual assessment of serviceability indicators – which had the merit, unlike the EPA, of doing what it said on the tin! Ofwat collected and assessed data on a basket of indicators, including a mix on environmental compliance metrics very similar to those collected in the EPA, along with asset-related indicators such as mains bursts, designed to capture longer term trends in underlying asset condition.

The annual assessments formed the basis of regulatory judgements about the adequacy of companies' long-term stewardship of their assets. Ofwat commissioned independent reviews of its judgements and company reporting was subject to independent reporter scrutiny (both would have merits today).

This was supported by cross industry collaboration, through a common framework for capital maintenance, which in turn influenced the evolution of asset metrics and of modelling and risk-based approaches at company level.