Reserving Water Abstraction Rights

Environment Agency consultation response

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1. Background and objectives

Water UK is the trade association for the UK's water industry. We represent all regulated water and wastewater companies in England, Northern Ireland, Scotland and Wales.

This response follows the Environment Agency's proposal to introduce a system for reserving water abstraction rights. The Environment Agency is proposing to enable large schemes to 'reserve' water rights until they are in a position to complete an environmental assessment of their impact, which will then enable them to apply for a full abstraction licence, with confidence that the water will be available.

Throughout this response we have highlighted answers to specific questions within the consultation. The consultation poses questions on the specific reforms proposed and a wider question on other reforms that may be needed. While we agree that some of the incremental change proposed would deliver some benefit and support many of the specific proposals, in particular offering certainty to major water resource schemes about their abstraction rights – which is critical to ensuring the projects are investible - we believe that fundamental reform of abstraction is required. We therefore begin, in section 2, setting out how abstraction management should be fundamentally reformed. Section 3 onwards then addresses our response to the specific proposals.

Our response to this consultation should also be read in the context of our wider views of the system for managing water resources in England, as set out in our submission to the Independent Water Commission, namely that:

- The system of environmental destinations – forecasts for the amount of water which should be retained in the environment in future - is flawed as water companies require up to 15 years of data to challenge Environment Agency assumptions about abstraction reductions. This is despite those assumptions being based on high level models which often ignore the complexity of local groundwater hydrology.
- We should not rely, for our future water security, on assuming that we will achieve very ambitious targets for cutting household and non-household demand and leakage. We should plan on the basis of forecasts rather than targets.
- Water resources management plans need a clear standard for headroom which should be larger going into the future to balance the far higher risk – for the environment, the economy and society – of having too little water against having too much.

2. Fundamental reform of abstraction management

The Environment Agency's consultation asks which further changes to the future landscape of water resources planning and abstraction licensing are necessary to better enable access to water resources while protecting the environment and existing abstractors (q19). Water UK believes that faced with the

challenge of climate change, the need to protect the environment and the need to secure economic growth, fundamental reform to abstraction management is required to transform our bureaucratic system into one which is dynamic and makes the most efficient use of a limited resource.

How abstraction management currently works

Any organisation or individual taking water from the environment affects both that environment and the ability of other users further downstream to abstract. As a result, states have sought to regulate abstraction rights since at least the Roman era.[1]

In England, the Environment Agency currently manages abstraction rights through the abstraction and impounding licensing system. Abstractors taking more than 20,000 litres per day are required to obtain licences from the Environment Agency under the Water Resources Act 1991 which allow them to abstract specific volumes of water, over particular periods, subject to conditions such as a specified 'hands off flow' level – a point at which flow is so low that abstraction is no longer permissible. [2]

In 2021, the government consulted on modernising the system by bringing abstraction and impounding licensing into the Environmental Permitting Regime. The aim of this system was to modernise the system by:

- Streamlining regulation by enabling different types of permits to be rolled into one another, so that an organisation can apply for one combined permit covering all of its activities (e.g. wastewater discharge as well as abstraction).
- Creating a future digital service where permit holders can manage all of their environmental permits in one place.
- Enabling a proportionate risk-based regulation and dynamic water management, though there are no details about how the changes achieve these aims.[3]

These changes are welcome, but they have been promised since 2018. They also represent the utilisation of technology that has been readily available since the last decade of the twentieth century, and do not take advantage of current technology to modernise abstraction management in a way which protects the environment and enables access to water within a stable regulatory framework.

Problems with the system

The proposed move of abstraction licencing to the Environmental Permitting Regime does not solve fundamental problems with the system which are a lack of data to inform decision making, inflexibility and that it does not achieve its stated aim of protecting the environment.

[1] Anthony Scott & Georgina Coustalin, *The Evolution of Water Rights*, 35 Nat. Resources J. 821 (1995), p.835
[2] Environment Agency (2021), Changes to the regulatory framework for abstraction and impounding licensing in England: Moving into the Environmental Permitting Regulations regime, p.7.
[3] Environment Agency (2021), Changes to the regulatory framework for abstraction and impounding licensing in England: Moving into the Environmental Permitting Regulations regime, p.7.

1) Lack of data to manage the system

The Environment Agency collects data from monitors on river flows on a regular basis, though the regularity appears to vary between monitors. However, there is no real time collection of data on abstraction – with water companies only reporting abstraction quarterly, other abstractors reporting annually, and those who do not require a licence because they are abstracting below 20,000 litres per day not reporting at all. This means that while the Environment Agency may have a good understanding of the impact of rainfall on river flows, it does not know how abstraction is affecting those flows, or indeed how much water is available for use in critical periods. This also makes it very difficult for the Environment Agency to understand the scale of unlicensed illegal abstraction – abstraction above 20,000 litres a day taken without a licence.

As long as data is high level, the Environment Agency can only make very broad assumptions to set limits on abstraction.

2) The system is inflexible

The lack of granularity of data drives a system which is inflexible. For example, abstraction licences typically have daily and annual limits, set on high level assumptions about abstraction in the catchment (e.g. assuming that all abstractors are abstracting their full licence). These daily and annual limits reduce water companies' ability to recover from drought when water is available because:

- **Daily limits** prevent water companies from abstracting beyond certain volumes even after heavy rainfall. In a drought scenario, water companies may want to go beyond these limits *when the water is available* to refill reservoirs faster
- **Annual limits** prevent water companies from taking more than a specified volume in a given year. At the end of a drought year, a water company may have exceeded its licence but would not be able to abstract to refill reservoirs using their standard licence because it has reached its annual limit.

The Environment Agency has established a trading system which aims to address some of this inflexibility by enabling trading of abstraction rights which are underutilised. However, the trading system is not agile and its information is out of date so its usefulness is questionable. The latest edition of data on abstraction licence trading dates back to the end of 2024 and classifies 60% of licences as only having potential for trade on a 'case by case basis'. Only 18% of licences have a 'high potential to trade'.[4] This system, alongside the lack of real time data highlighted above, is not agile enough to meaningfully enable water trading. For example, as the Inland Waterways Association has pointed out in its response to this consultation, canals with minimal storage capacity can see demand vary significantly by month between summer and winter, by day of the week and even between daytime and night-time.[5] In 2025, around 400 miles of the canal network, 20 per cent of the total, were affected by restrictions and closures.[6] It is

[4] Department for Environment, Food and Rural Affairs (2025), Help for Water Rights Trading Data (England)
[5] Inland Waterways Association (2025), IWA Response to Environment Agency's Consultation on Reserving Water Abstraction Rights, P.5
[6] Environment Agency (2025), Navigating Drought: Reflections on protecting waterways and supporting canal users

difficult to see how data from 2024, with abstraction licence holder behaviour almost certainly changed as a result of the 2025 drought, could effectively enable trading to alleviate this situation.

3) Environmental protection is insufficient

The lack of more granular data also risks causing environmental harm. Cyclical reviews of abstraction based on broad assumptions about environmental conditions can under or overplay the amount of water that can be safely taken from the environment. If they are overplaying current abstraction volumes, then they might be leading to environmental harm due to a lack of understanding of real time conditions.

Proposals to transform abstraction management

Water UK considers that twenty first century abstraction management should be data driven, dynamic, and, ultimately, include a market mechanism to incentivise efficient use. This system will take time to put in place, not least because legislative change will be required and data collection infrastructure will need to be installed. Nevertheless, the transition should start as soon as possible so we have a system fit for the climate change threats that are already emerging.

1) Data driven

Firstly, data must be improved. As Water UK set out in its submission to the Cunliffe Commission's call for evidence, two reforms are required:

- **Remove the *de minimis* threshold:** All abstractors, and not just those abstracting above 20,000 litres per day, should be required to hold licences and report on their abstraction volumes. We understand that some commercial abstractors are currently circumventing this threshold by setting up multiple abstraction points marginally below 20,000 litres per day – meaning they are abstracting significant volumes without a licence. Removing this threshold would also send a strong message what all water needs to be used wisely.
- **Establish real time monitoring *and reporting:*** The water industry is about to reap the benefits of deploying 10 million smart meters to homes and businesses across England. Already 90% of water abstracted is metered. If *all* abstraction licence holders – and there are less than 18,000 licences in England – were *smart* meter this would be a valuable real time data source for understanding actual water available for use.[7] The data could also be used to better understand the relationship between groundwater abstraction and the flow of nearby rivers, as this is far less direct than the relationship between surface water abstraction and river flow. Similarly, while river flows are already regularly monitored in much of the country, this could be improved to ensure at least daily reads on flows from all monitoring points.

This data is the foundation for dynamic licensing and the market mechanism described below, but it will also drive a more informed approach to future cuts in abstraction volumes. Currently projections for future abstraction licence cuts, known as an 'environmental destination' are set by the Environment Agency on the basis of large high level models rather than detailed hydrological models. The Environment Agency require up to 15 years of catchment data to challenge the assumptions about reductions its

[7] UK Parliament (2024), Water Abstraction: Licensing – Question for Department for Environment, Food and Rural Affairs

models make, meaning that by the time a water company may establish that a reduction is not required it will have needed to build a new water supply option – such as a major reservoir – in case it is.[8]

More granular and comprehensive data on actual hydrological conditions would enable the development of more sophisticated models with a better understanding of the complex relationship between river flows and groundwater abstraction in particular. This would allow for better targeted environmental destinations and less potentially wasted investment or earlier awareness of possible environmental harm.

2) Dynamic licencing

Once regulators have real time data it will be possible to enable much more flexible abstraction licences as regulators will know, in real time, river flows, the rate of abstraction and, over time, how the rate of abstraction is affecting forward looking river flows. This will mean that the Environment Agency will be in a position to be much more flexible with licences to enable water companies and other abstractors to recover more quickly from drought, for example by exceeding daily licence caps when water is available.

This does not need to be resource intensive. If the metrics, such as desirable environmental flow indicators varied by time of year, are agreed up front, an AI model could determine water availability and provide live updates to licence holders in order of priority.

3) A digital cap and trade water credit market

The Murray Darling river basin in Australia has implemented a 'cap and trade' system for water abstraction, with a cap on the total water available for consumptive use and the ability for licence holders to trade, either with each other or with new abstractors. The trade is approved if it meets the market's trading rules and the South Australia state government's water allocation plan principles.[9]

Using a similar system, but based on real time information, the Environment Agency could implement a dynamic licence trading system, with rules and regulation to ensure allocation of water rights continues to follow a hierarchy, with public water supply first. This could be in line with the drought hierarchy the government is developing. For example, if public water supply found it had capacity in its licence at a given point, it would need to offer capacity to critical national infrastructure first, before it was passed on to other abstractors. This could be priced and sold as a 'water rights credit' with the value fluctuating in line with water availability. Such a system would have the following benefits:

- **Greater ability to plan for investment:** By maintaining real time data, and an abstraction cap, over time organisations would be able to better understand what the cost of water rights credits is likely to be and what this might mean for their own decisions about investment in local water storage options.
- **Incentives for water efficiency:** Any unused capacity could be traded on the market. Unused capacity is likely to be limited, as demonstrated by the fact that around 10% of surface water bodies and 28% of groundwater bodies in England are closed to new abstractors.[10] This is likely to drive the value of water

[8] UK Water Industry Research, Environment Agency and Natural Resources Wales (), National Framework for Water Resources: Environmental Destination Investigation Framework, p.48

[9] Government of South Australia Department for Environment and Water, Buying and Selling Water

[10] Department for Environment Food and Rural Affairs (2021), Water Abstraction Plan: Environment.

up which would push the cost of a water rights credit up. This would incentivise *existing* abstractors to be more efficient so that they can free up capacity to release to the market for a profit and *new* abstractors to use as little water as possible to minimise their costs.

- **Water is directed to the most valuable processes:** As the price of water rights credits increase, any remaining water, beyond that reserved for government priorities (public water supply, critical national infrastructure and water needed for important government priorities such as food security) would go to the highest bidder. This would mean that, outside of the core priorities, remaining water is likely to be directed to the most economically valuable uses.

While Water UK believes the system of abstraction management requires fundamental reform, it believes the incremental improvements proposed in the current consultation would offer some improvement on the current system. The proposed reforms are discussed below.

3. Reservation system

Water UK supports the Environment Agency's objective to introduce a transparent system to reserve water rights for strategic schemes (q1). At present, to secure abstraction rights, abstractors must:

- Demonstrate that the abstraction will not have an adverse effect on the environment including through hydrological studies and flow monitoring.
- Prove that there is a 'reasonable need' for the abstraction and that the water will be used efficiently
- Demonstrate that the licence will not negatively affect public water supply, other lawful abstractors or water rights already in place.

The above can be a challenge for large schemes, such as major reservoirs, which have long lead times and so face a 'catch-22' because:

- They require abstraction rights to ensure the viability of the scheme
- But, they cannot immediately conduct the required environmental assessments to acquire those rights because the environmental impacts of the scheme are too far into the future and are influenced by uncertain factors such as future climate change.

The Environment Agency propose to resolve this challenge by establishing a system of 'reserve licences' which reserve water for priority schemes until they are ready to conduct the environmental assessments required to acquire a full abstraction licence. Within this system we agree that scheme proposers should apply for reserve licences as early as possible (q2) to ensure that abstraction rights are reserved and not issued to other potential abstractors. However, we believe that any environmental assessment needs to remain proportionate to the risk of environmental harm. We do not agree (q6 and q7), that including a 'self destruct' clause in a reserved licence unless a full environmental impact assessment is carried out is the best way to balance risk between the need for certainty over abstraction rights and the need to understand the environmental impact of any abstraction. Major water resource schemes will cost billions and investors in such schemes, whether procured through a Specified Infrastructure Projects Regulations or Direct Procurement for Customers model, or for smaller schemes below £200m being delivered by the incumbent, need certainty that water will be available. Without this certainty the schemes will not be

investible. We believe that the water should be guaranteed to ensure these schemes are able to serve their purpose. Any potential risk to the environment should be considered upfront, but should not be based on hypothetical or speculative risks or take an unnecessarily cautious approach. In any case, a major driver of most of the water resource schemes currently proposed is to *protect the* environment by reducing abstraction from vulnerable sources. There should also be arrangements to allow the extension of licence reservations in cases where water resources schemes are delayed, for example, by the planning system.

4. Justifying the need for water

The consultation notes that organisations applying for abstraction rights currently have to justify the need for those rights, and that this can be duplicative if, as with water resource schemes, the needs case has already been justified in sector-specific Water Resources Management Plans.

Water UK therefore supports the Environment Agency's proposals (q3, q4, and q5) that for public water supply and non-public water supply schemes, including critical national infrastructure, should make the water needs case in sector specific plans (e.g. Water Resources Management Plans, Regional Energy Strategic Plans) and not have to restate those needs when applying for abstraction licences.

5. Flexibility

The Environment Agency's consultation highlights that in reserving abstraction rights long term for major infrastructure schemes, there is a need for a system to enable that water to be used by other abstractors in the years before the major scheme needs to abstract. The Environment Agency is proposing to enable long term licence holders to enter into derogation agreements with short term abstractors to enable short term abstractors to use reserved water before it is needed by large strategic schemes. The Environment Agency is also proposing to use the six year catchment review process to consider the ongoing sustainability of abstraction.

Water UK believes (q8) that in the short term, with the abstraction management system currently in place, reserved licence holders should be able to derogate their rights to enable short term abstraction, to make maximum use of available water without harming the environment. However, in the long term, as set out above, Water UK believes this system is bureaucratic, inflexible and fails to prevent environmental harm.

6. Hierarchy

The consultation notes that while the Environment Agency encourages collaboration between abstractors to negotiate future water rights, there will be occasions where competing demands in a catchment remain. The Environment Agency has proposed a hierarchy of priority for water abstraction rights:

1. Public water supply
2. Other critical national infrastructure
3. High priority proposals aligned to specific policy proposals (e.g. net zero)
4. All other activities.

Water UK strongly agrees that a hierarchy of water users is needed (q12) as this is a political choice for government with social, economic and environmental consequences and it should be for government to provide clear steers as to its priorities. Water UK also strongly agrees that public water supply (q13) should be given the highest priority in this hierarchy. Water UK also broadly agrees with critical national infrastructure (q14) should be second in this hierarchy, particularly where projects have already been identified in government approved strategic plans – such as Regional Energy Strategic Plans.

Water UK supports (Q15) the government setting out its formal priorities in a water plan.

One issue with the proposed hierarchy (q20) is that it does not prioritise enough, particularly from tier three onwards where the category of prioritisation is very broad and potentially obscures substantial trade offs between sectors which government should opine on. However, Water UK supports the consultation's proposal for a role for regional planning authorities in translating government priorities in the third tier of the hierarchy (high priority proposals beyond critical national infrastructure). There will be a trade off between flexibility within the hierarchy to translate national priorities to suit local circumstances, and more rigid prioritisation.