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MAKING THE MOST OF EVERY DROP

CONSULTATION ON REFORMING THE WATER ABSTRACTION MANAGEMENT SYSTEM

CONSULTATION RESPONSE

This response has been prepared by Envireau Water. Envireau Water is a specialist water resources management consultancy with a history of UK water resources management going back to 1991. We are regularly and frequently involved in the negotiation and design of abstraction licences which challenge both established science and policy. We are also actively involved in abstraction licence trading. We have based our comments on this extensive experience and expertise.

We have provided specific answers to the questions posed on the following pages and make some general comments below.

On balance we consider that that the 'Current System Plus' approach would be the more practical and pragmatic. However, we do not believe that the primary driver for licence reform should be licence trading. We believe that the opportunities for licence trading going forward will be limited to large trades; trades between large abstractors, probably water companies and power generators. Other abstractors will either have no need to trade, or get sucked into buying water from water companies, in order to "make my life easy". This would be bad for the environment and bad for competition.

We feel the 'Water Shares' option is far too complex to work on any practical level.

There is a need for licence reform, in order to provide a robust system that is flexible and adaptable, against a future where climate change is likely to change resource availability; but in a way that no one can predict, other than to say it will change. All indications suggest that weather will become more variable and possibly more extreme, but whether this will manifest itself as more or less water resources in total is still anyone's guess. Probably rightly, the assessment work for licence reform has assumed less resource in the future. However we should not lose sight of the fact that this is a scenario and not a prediction. Flexibility and adaptability to cope with whatever happens is key.

The treatment of groundwater in the whole assessment is too simplistic and has not been thought through. It appears to have been tagged on at the end after concerted pressure through the early development stages of the project. There is insufficient detail on the management processes and a lack of understanding in the basic principles of issues such as recharge and storage. The detail in the AMEC work has not been brought through into the main document accurately or clearly, suggesting a lack of understanding and appreciation in the DEFRA team.

For example, short term trading of groundwater at the exclusion of long term stability in agreed groundwater resource availability is counter-intuitive within a high storage, small transient change system. The benefit of groundwater abstraction is its relatively slow response to change when compared to rivers. The emphasis should be to longer term stability in groundwater abstraction policy. It is accepted that in some catchments steady state groundwater abstraction is too high, and the reform process should address this; but once a new status quo is established, then it should remain stable over a review period of 12 or 18 years (2 or 3 WFD/CAMS cycles).

There is a danger in the reform process that allocation of licence volumes will be undertaken by both the 'game keeper and poacher', in that the Environment Agency / NRW are both the guardian of the environment and deciding who should have what. There is a very high risk, that in a stressed system that they will 'keep too much for themselves' (the environment in this case). There is a very strong argument that the water resource determination and allocation and licensing / trading should be done by a body independent of the environmental protector, who need only be a consultee and should fight their own corner for their resource.

Droughts and other special situations will always require special arrangements. The reform process is an opportunity to re-think what special arrangements are needed and who needs them. Now that water supply is controlled by private companies and their shareholders; the focus of special arrangements should be on the provision of the minimum amount of sanitation and drinking water, maintaining a functioning utility base, manufacturing base and food / agriculture base. The special arrangements should not be focused on maintaining private water company share prices, which seems to be the situation at present.

Yours sincerely

A handwritten signature in black ink, appearing to read 'James Dodds', written over a faint rectangular box.

James Dodds MSc, DUC, CGeol, FGS
Managing Director, Water Management Specialist

MAKING THE MOST OF EVERY DROP

Consultation on Reforming the Water Abstraction Management System

QUESTIONS & RESPONSES

- 1) What are your views on the proposal to convert seasonal licences into abstraction permissions based on water availability?
 - It is essential in order to allow adaptation to changing resource availability throughout the year
 - It will increase the reliability of abstractions and encourage water to be taken earlier but may require investment in some storage not currently required
 - The degree of storage uptake may be dependent on current unreliability of a licence, for unrestricted licences of right no incentive to store or to change abstraction patterns will exist unless a minimum HOF is applied (as is proposed) and even then it may not make significant impact to when they can abstract depending on the level the HOF is set at
 - This aspect does not need abstraction licence reform, it simply needs sensible charging within the current system

- 2) What do you think about the different proposed approaches to linking abstraction to water availability for surface water and groundwater abstractions?
 - Current System Plus
 - Provides the most reliability to the abstractor in terms of security of supply over a period
 - Too short term changes in 'share' volume could have radical business impact whether it be loss of production or not enough water to effectively irrigate etc. Most businesses plan on > 2 week cycles.
 - Opening up the high flows to increased abstraction rates gives good potential for use and it is encouraging that it would reduce the licence volume used (therefore cost) if utilised and storage was available, however its uptake would need to be taken into account when reviewing ongoing water need / permission utilisation etc to avoid disadvantaging allocation after review period.
 - Water Shares
 - This system is far too complex and requires far too much data gathering and data management on a short duration basis to make it viable.
 - Groundwater
 - Insufficient time and thought has been given to the role of groundwater within the proposed changes.
 - The documents fail to understand the differences between groundwater and surface water resources management.
 - More thought and detail needs to be provided on the detail of simple and complex trades and the times scales applied to resource availability. These are relatively complex issues which are spatially very variable. The controlling mechanisms for resource quantity and environmental interaction are totally different in groundwater and surface water systems and as such the way in which they are controlled and regulated needs to take account of this. The current proposals do not sufficiently take this into account.

- 3) Would it be helpful if abstraction conditions required abstractors to gradually reduce their abstraction at low flows before stopping, rather than being just on or off?
 - Yes, especially for spray irrigators

- 4) Do you think the proposal to protect the environment using a regulatory minimum level at very low flows is reasonable? If not, how do you think we should protect the environment at very low flows?
- Reasonable but this level must adapt as abstractions are expected to adapt i.e. not constant forever, it should be reviewed at the same frequency as abstractions.
 - How will the flow be defined?
 - Currently the EFI form the basis the basis of the regulatory minimum.
 - There is an inherent assumption within the EFI approach that good ecological status is achievable, which is based on the restoration of 'natural' flows. Is this possible in England where many rivers are heavily modified as a result of long established land use changes from 'natural' land use. It is important that the goals that are being set are realistic and achievable. The goals and objects and targets define the EFI and therefore what is and isn't sustainable abstraction.
 - If the definition of 'natural flow' is inappropriate then this will have very significant impacts on water resource availability and the veracity of a licence trading system. A definition produced by UKTAG will only take the regulator view and may not take a balanced view.
 - It is important not to confuse 'naturalised' flow and 'natural' flow. The two are very different.
 - Improvement in understanding is essential. Care must be taken that operational and financial commitment is given to improving data gathering and interpretation BEFORE implementing changes to the licensing system.
 - Will the level change with season?
 - If it was constant it would be potentially over restrictive in the summer and also possibly remove important winter flush flows.
- 5) What do you think of the proposal to require abstractors who discharge water close to where they take it from to continue to discharge a proportion in line with their current pattern?
- Important where those discharges already support downstream abstractions.
 - Measurement of discharge:
 - Reference is made to the fact that discharge measurement is difficult for some and that some abstractors or industries would only measure on a voluntary basis. This is not thought through. Why treat different sectors differently? This system is flawed if discharge isn't measured. If it is measured only for large abstractors (PWS & Power) then this should be transparent.
- 6) How best do you think water company discharges should be regulated to provide reliable water for downstream abstraction without impacting on water quality objectives or constraining flexibility in water management?
- As part of the existing interaction with the EA via AMP and water resources management plans, the water companies should propose management solutions that balance abstraction and return within the same catchment as far as possible. The overarching objective should be to maintain resources in the same system. Once a management approach is agreed, then this should be binding for a period of time through the abstraction & discharge consenting (EPR) systems.
- 7) If you are an abstractor, how would these charging proposals affect your business?
- There must be a consideration of consumptiveness as well
 - We cannot see any dis-benefit to abstractors as in reality there is no real change proposed to the current charging scheme (unless the SUC increases)
 - The change in charging does not need licence reform, it simply needs a sensible approach to charging under the current system

- 8) To what extent would a system that charges abstractors partly on permitted volumes and partly on actual usage (ie a two part tariff) encourage abstractors to use less water?
- Should encourage efficient use in highly consumptive abstractions.
 - Existing 2PT for spray irrigation is already an incentive to reduce usage where possible but it must be remembered that in agriculture's case it was designed to also help financially considering the headroom required in licences to account for those few but critical dry years. In order to have real impact, the charges on actual abstraction may have to be significantly higher than the permitted volume / availability charge.
- 9) Would quicker and easier water trading benefit abstractors now? How beneficial do you think it would be to abstractors in the future?
- Yes some abstractors would benefit, but we believe that the number of people or organisations that want or need to trade is very limited. As with any system, the quicker and more efficient it is the better.
 - The current need is when an occasional 'quick fix' is needed.
 - The speed of the trade is controlled by regulatory tardiness, usually linked to policy or environmental reporting. This doesn't need a fundamental change to the system, just a fundamental change in the regulator. We consider that this will remain the "rate determining step" in the future, as least valuable trades will be the 'simple' ones.
 - Concern over fact that trades will still be limited to small sub-catchments, some facilitation may occur but trades will always be most valuable in the 'wrong direction' and therefore are the 'complex' ones.
- 10) To what extent do you see additional benefits in the wider range of trades that can happen under the Water Shares option, compared to the Current System Plus option?
- Water Shares is a far too complex system for everyday use, particularly as we believe based on our experience that there is limited potential for actual trading.
 - The Current System Plus provides a framework for trading to take place within a system that is relatively straightforward and understandable. The key will be in a flexible and evidenced based decision making process.
- 11) Do you agree that participation in abstraction trading should initially be limited to those with a direct interest in abstracting water?
- Yes. The water resources of the nation should not be treated as a commodity.
- 12) Do you support our proposals for a more consistent approach to making changes to abstraction conditions? If not how would you improve the proposals?
- Must be careful applying a 'consistent approach' to things like removing X% of headroom in a licence
 - Account must be taken of different sectors needs and account for typical use / short term / future plans to avoid disadvantage
 - Possibly could apply consistent approach by sector to release headroom to fill the initial 'reserve pot' then give existing abstractors first chance to re-justify a different headroom based on historic use / business plan, before releasing 'pot' for new entrants to apply for.
 - § True sleeper licences would not be able to justify any more.
 - § Set cut off to say 10 years where full volume lost unless valid justification / business plan can be submitted.
 - We support removal of time limits, serious damage and compensation proposals.

13) What notice periods do you think would best balance the needs of abstractors and the environment?

- At least 12 years. It must be recognised that the 'environment' is a dynamic system that is fundamentally based on change. That is how systems evolve. Environmental systems change slowly & therefore the controls on impacts (other than catastrophic impacts such as pollution) can change slowly. Overall catchment resources can be balanced on a 12 year cycle, as long as a defined flow regime is protected.
- Resource availability, while it may change, will not change quickly and within a system that may have increased variability, it may take time to have the evidence base for underlying change.

14) Do you support the proposal to remove the payment of compensation for changes to abstraction conditions and to phase out the collection of the Environmental Improvement Unit Charge through abstraction charges?

- Yes.

15) Do you agree it is important to take measures when moving licences into the new system that would protect the environment from risks of deterioration?

- Yes, but on a strong evidence base & taking account of true risk and impact. Poor evidence and perceived impacts should not be protected by the 'precautionary' principal.
- Abstractors who hold appropriate licences have little to fear; biggest change will be to those sitting on assets that they don't use.
- Having a low flow HOF that affects all means everyone knows where they stand and the environment is ultimately safeguarded.
 - In theory this should also reduce the frequency of true drought restrictions (very useful if so)
 - Should the ultimate low flow HOF reduce use totally of drought restrictions such as Section 57 from applying?
- There will have to be an ultimate safeguard for people. Such safeguards should be considered carefully. For instance in a drought situation it is easy for people to reduce consumption, which releases large volumes of water back to the environment. Other industries, such as farming, stop if water is not available (if restrictions under Section 57 are applied). At what point is food and industry protected over water company share prices?

16) Would you prefer us to consider the risks in each catchment when designing the rules for moving licences into a new system, or should we treat all abstractors in the same way regardless of water availability?

- The approach must be catchment based. The dynamics of different catchments are different. For example one may be very groundwater dependent; another may be small and heavily dominated by urbanisation.
- However, a consistent approach must be maintained between different sectors across the catchment to be fair and future proof.
- Implementation should start with stressed catchments and phase implementation across country.

17) What would be the most effective method to calculate the new annual limits to be transferred into the new system (for example average annual, average peak or a combination of actual and licensed volumes)? And what assessment period should be used to calculate them?

- Must use typical use for a typical abstraction period.
- Must be sector specific.
- Must account for individual circumstance where possible.
- Must be based on future need, not historic usage. This doesn't mean that everyone gets what they want, but the past isn't necessarily an analogue for the future in many sectors.

18) Do you support the establishment of a water reserve to support economic growth?

- Yes but not at the expense for existing legitimate abstractors who can justify their need for their full current licence volume.
 - Most low abstraction periods occur for legitimate reasons and would recover to licensed levels in time.
- Sleeper licences should have volumes reallocated.