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Making the most of every drop consultation on reforming the water abstraction management system

Summary of consultation responses

July 2014

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Introduction

The UK Government committed to reform the water abstraction management system in England in the Natural Environment White Paper, published in June 2011, and then set out the proposed direction, principles and process for reform in the Water White Paper, **Water for Life***,* in December 2011. We are committed to introducing a reformed water abstraction management system able to promote resilient economic growth while protecting the environment.

The aims of reform are to:

- Maximise the amount of water available to abstractors;
- Facilitate trading, maximising the economic value from available water and allowing new entrants to access water;
- Provide reasonable certainty for abstractors for planning their business;
- Protect water ecosystems in line with legal requirements, particularly ensuring that reform does not create risks of environmental deterioration;
- Promote efficient use of water through charging for actual use; and
- Ensure the new system is able to respond to longer-term changes in water availability.

We want to do this in a way that minimises administrative costs whilst still achieving our aims. This is about smarter regulation that reduces the cost to businesses of dealing with the challenges of the future. We also want to make sure we move to a new system in a way that takes into account both current licences and the amount that abstractors actually take.

The Welsh Government is committed to ensuring the sustainable management of water resources in Wales. This includes considering the need for any changes to the water abstraction management system in Wales. The Welsh Government consultation on its Water Strategy, launched in April 2014, identifies the need to manage water in a fair and comprehensive way. The results of the “Making the Most of Every Drop” consultation will be taken into account in the development of the final Water Strategy for Wales.

Water abstraction reform is about creating a system that is capable of dealing with the future challenges of climate change and increased demand for water from a growing population. It is not about tackling existing unsustainable or damaging abstractions. In advance of reform, we are continuing to tackle the problem of abstractions that are causing damage now to our rivers and groundwater.

The consultation policy proposals

The reforms proposed in our consultation are designed to make the water abstraction management system more flexible and resilient to future pressures. We identified two main options for reform, which we developed through working closely with stakeholders. We called these ‘Current System Plus’ and ‘Water Shares’.

The key difference between Current System Plus and Water Shares is the proposed method for linking water abstraction to water availability in surface water, although both methods aim to increase the amount of water that can be used. Both options make it quicker and easier for abstractors to trade water with each other, though Water Shares allows for a greater range of trades to be pre-approved than in Current System Plus.

Current System Plus would link abstraction to water availability using annual and daily volumetric constraints, as in the current system. These tools would be further refined, allowing more water to be abstracted when more is available and restricting abstraction at very low flows. The Water Shares option would give abstractors a share of the available water in a catchment, rather than an absolute amount, encouraging abstractors to take a shared responsibility for water resources in catchments.

Under both options we also proposed to:

- Remove time limits from licences that currently have them and instead introduce a new transparent and risk based process to review catchment conditions and identify any changes needed to abstraction permissions. The review process aims to strike the right balance between providing regulatory certainty for abstractors and managing environmental risk;
- Improve the link between abstraction charges and usage, within a cost recovery framework;
- Take an evolutionary and proportionate approach to implementation. We would only introduce the full package of reforms in some catchments, known as ‘enhanced catchments’ where there are clear economic and environmental benefits in doing so; all other catchments would be known as ‘basic catchments’; and
- Manage discharges so their value to river systems and other users is recognised.

We also proposed a number of different approaches to changing licences to make them compatible with a reformed system. The volume and reliability of water allocated to abstractors in a new system would take account of current licences and the actual volumes of water used.

Abstraction reform aims to ensure that we are making the most of every drop. We must use water in the most efficient way possible and support businesses to manage their risks from future pressures on water resources, whilst protecting the environment. This will help to support economic growth and investment in the future.

Purpose of the consultation

The purpose of the consultation was to seek views on a range of proposals for reforming the water abstraction management system in England and in Wales. The consultation did not seek views on the proposals to bring currently exempt abstractors into the licensing system, the move into the environmental permitting regime or the implementation of upstream reforms as these are separate issues outside the scope of this consultation.

The consultation was an open one, applying to England and Wales, and lasted for 14 weeks, closing on 28th March 2014. The consultation can be found at: https://www.gov.uk/government/consultations/reforming-the-water-abstraction-management-system-making-the-most-of-every-drop

The responses to the consultation will help to inform policy decisions on the nature of potential reforms.

During the consultation period the UK and Welsh Governments held a series of consultation workshops around England and Wales. The workshops were designed to give participants the opportunity to hear more about the consultation proposals; seek further information or clarification; and tell us their views about the consultation proposals. These views are not included in this summary of responses, but will inform our considerations when making policy decisions. Key points raised at the workshops are given in Annex A.

Handling of responses

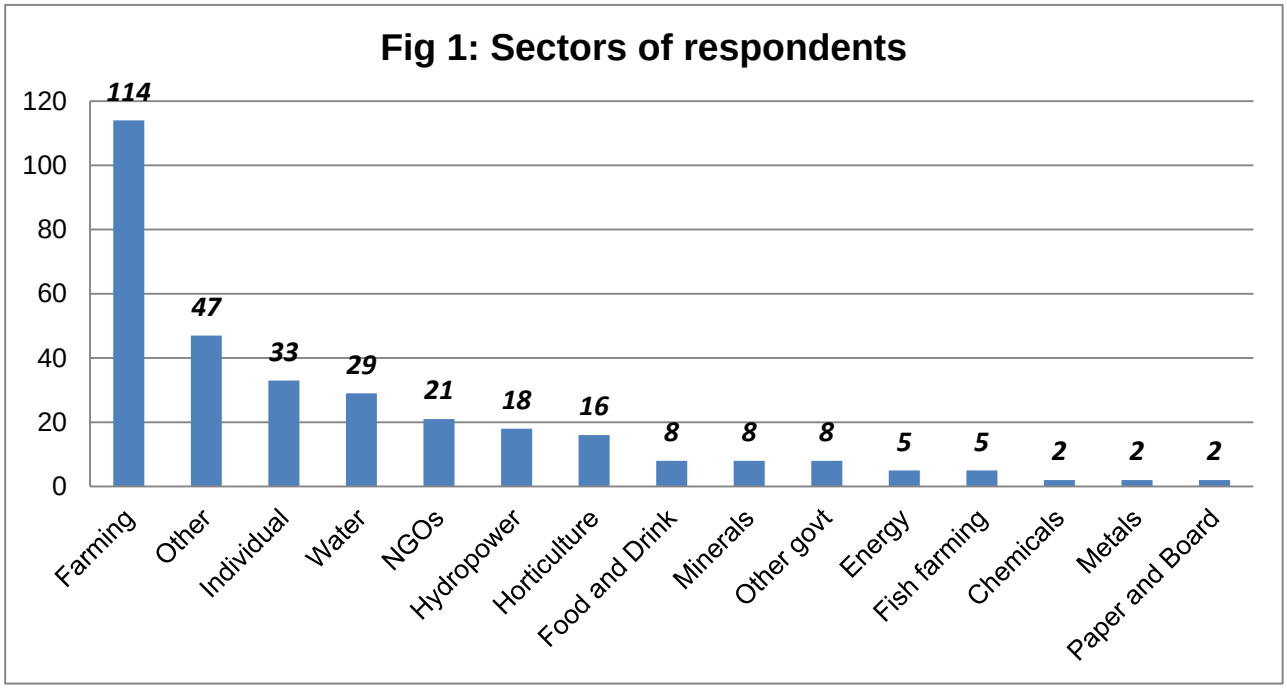
Defra and Welsh Government are grateful to everyone who took the time and effort to respond. The responses have been seen in full by the Welsh Government, Defra, Natural Resources Wales and Environment Agency staff dealing with the consultation proposals. They may also be seen by other Welsh Government and Defra staff to help them plan future consultations.

This summary includes responses submitted online through citizen space, by post and by email. This summary is a high level overview of the main messages from the consultation responses; it tries to reflect the views offered but, inevitably, it is not possible to describe all the responses in detail.

A broad analysis has been made of the key issues raised, including (where feasible) a numerical estimate of those for and against each proposal and the breakdown of respondents by sector.

Overview of responses

The total number of consultation responses received was 318. Out of this total, 182 respondents were licence holders. Figures 1 and 2 show the breakdown of responses by sector and region. The highest number of responses was from the farming sector who accounted for 36% of the total. The East of England was the region with the most respondents (27%).



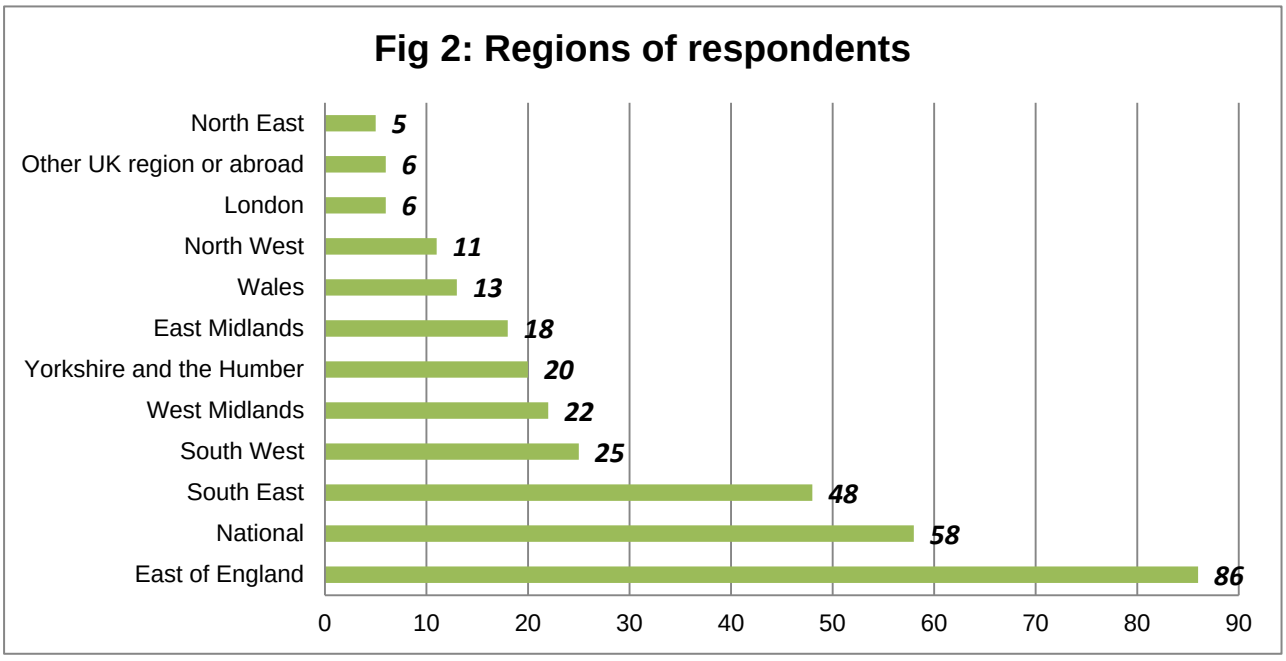
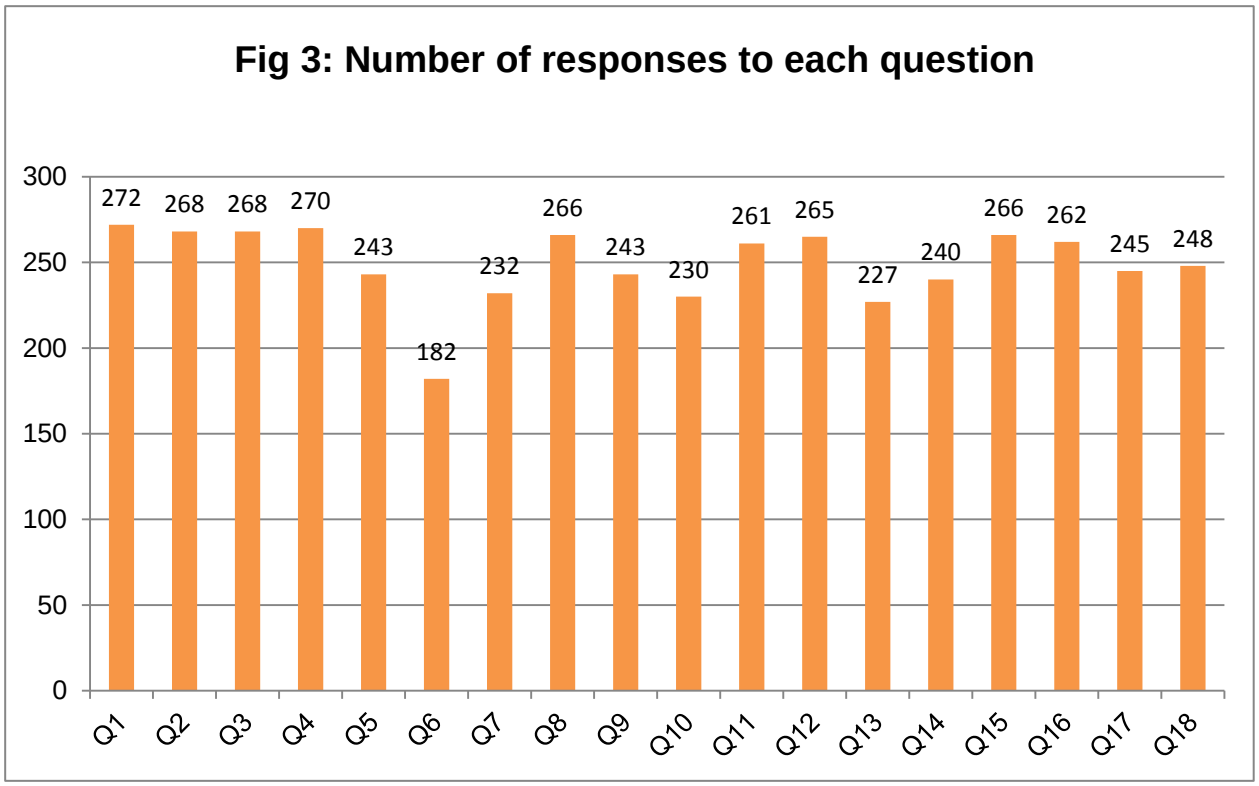


Figure 3 shows the number of responses to individual questions in the consultation.



A list of organisations that responded is given at Annex B.

Many of the proposals received support in principle from a range of sectors. Many respondents in support of a proposal identified issues for us to consider further or asked for clarification of terms, such as “consumptive use”, or for more detail on the proposals. Other proposals attracted a wide diversity of views.

Although many respondents did not express a preference for either Current System Plus (CSP) or Water Shares in terms of better linking abstraction to water availability, of those who did, more than twice as many expressed a preference for CSP (60) as Water Shares (25). There were 47 respondents who thought Water Shares would increase the benefits of trading, compared to 73 respondents who thought there would be no additional benefits.

> *“Current System Plus will be more flexible but very similar to the existing system and shouldn't need a complicated transition. Water shares offers a novel and potentially engaging approach from a catchment wide perspective but is more complicated and needs more technical / IT resource….Both approaches have in built flexibility to adopt for future pressures. Linking abstraction to availability will be welcomed by abstractors who are affected & could allow for long term plans despite short term weather patterns”.*-Chemical Industries Association.

The number of responses from individuals and organisations in Wales was small. In the case of some UK organisations similar responses were received for England and Wales. There were no discernable differences in the range of the Welsh responses when compared with the overall responses to the consultation.

The responses from all sectors in Wales recognised the need for reform of the abstraction licensing system. Overall, there was a preference for CSP, although non-agricultural abstractors felt that trading would be of limited benefit for their operations.

Key themes

Some key themes emerged from the consultation, across a number of different sectors:

- Support for the principle of linking water abstraction to water availability;
- Agreement from many that quicker and easier trading would benefit abstractors;
- Agreement from a majority of respondents that trading should initially be limited to those with a direct interest in abstracting water;
- Broad agreement that there should be a more consistent approach to making changes to abstraction conditions;
- Support for a catchment specific approach when designing the rules for moving licences into a new system;
- The importance of defining how much water is “available”; how we use the Environmental Flow Indicator (EFI) and the need for site-specific understanding of environmental requirements; and what exactly constitutes the high flows which would be available for additional abstraction;
- The identification of potential benefits from additional storage, linked with concerns about the practicalities, cost and complexity of its provision and any associated infrastructure;
- The importance of a guaranteed water supply to a range of businesses, and the impact on business planning of the perceived uncertainty arising from these proposals;
- Concerns about the process of moving to a reformed system, particularly around licensed volumes;
- The need for further information on how abstraction of groundwater would be linked to availability in a new system;
- The need for clarity on how these proposals interact with drought management ; and
- Reasonable support for the concept of having basic and enhanced catchments, though some respondents were concerned this could lead to a ‘two tier’ system.

There were also some key themes that emerged from specific sectors:

- Requests from farmers and growers for equity with other sectors, calling for the removal of section 57 of the Water Resources Act 1991[1], which currently applies only to spray irrigators;
- Concern from land owners about the impact of reform on the capital value of land;
- The wish of non-consumptive abstractors to be treated differently or to be outside the system altogether;
- Concerns from the Water Industry about how these proposals, in particular removing licensed volumes at transition and the regulatory minimum level, would impact on their Deployable Output[2]; and
- The welcoming of these proposals from many environmental NGO groups, but with calls for additional measures such as Hands off Flows[3] (HoFs) on all licences and graduated controls down to an absolute stop on all licences when flows reach those that represent the lowest 5% of flows.

We have a number of strands of work in place that pick up on some of these key themes – please see 'Next steps' for details.

Many sectors asked for special consideration given their unique circumstances, including both the food and drink sector and thermal power stations due to the strategic importance of their industries; the public water supply due to their strategic importance and statutory requirements; the farming sector due to animal welfare and food security issues; horticulture because container grown crops cannot survive more than twenty-four hours without water; and the paper industry because paper manufacturing requires consistent access to water.

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[1] Section 57 of the Water Resources Act 1991 gives the Environment Agency / Natural Resources Wales powers for "Emergency variation of licences for spray irrigation purposes when there has been an exceptional shortage of rainfall or other emergency."

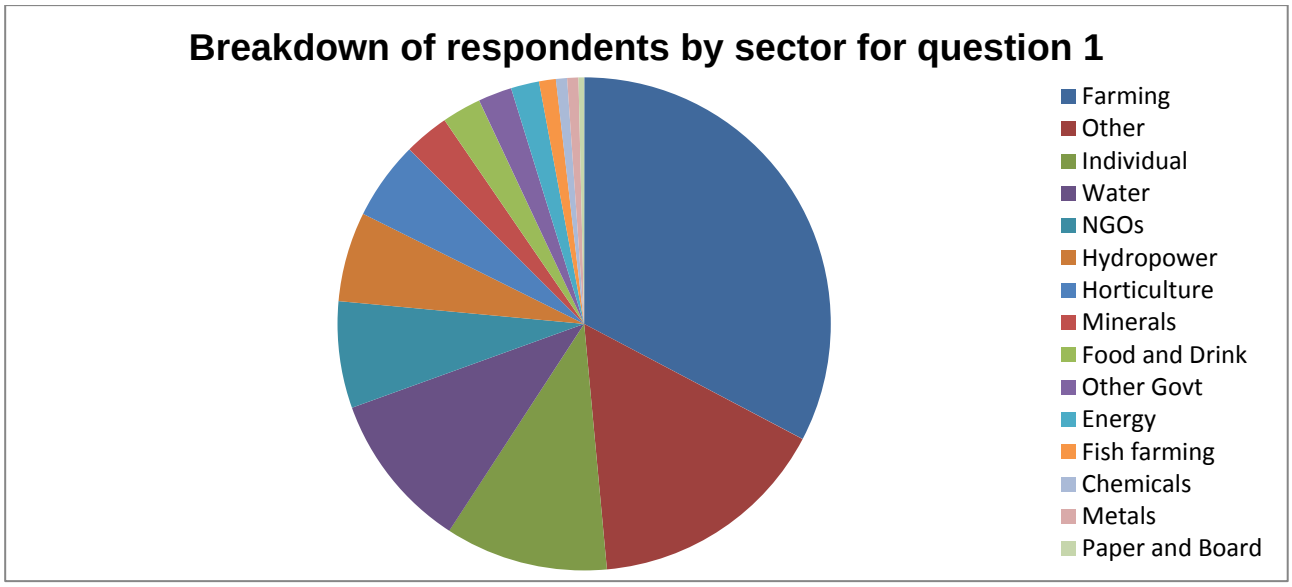
[2] The term deployable output means how much water a company would expect a source of water (river, reservoir, groundwater unit or combination) to produce under certain conditions (e.g. drought), that is constrained by any abstraction licence condition and the physical constraints such as getting the water through pumps, pipes and treatment processes.

[3] A condition attached to an abstraction licence which states that if flow in the river falls below the level specified on the licence, the abstractor will be required to reduce or stop the abstraction.

Reponses to individual questions

We received responses from a range of abstractors and other stakeholders, expressing a wide variety of opinions on some of the questions. Some of the key points emerging from the responses are given below. We have not attempted to report all detailed points made by every respondent. In many cases we are already following up with respondents on the points they have raised and will continue to engage with stakeholders as we develop our policy further. We have not always repeated points below if they have already been identified as a key theme in the previous section.

Question 1: What are your views on the proposal to convert seasonal licences into abstraction permissions based on water availability?



There were 277 responses to this question. 216 respondents offered full or qualified support and 21 were against the proposal. Of those who responded to this question, approximately one-third (89) were from the farming sector.

The vast majority of those who responded to the question supported the proposed change (79%), with many respondents describing it as a "sensible" proposal. Support came from a range of sectors, including farmers and environmental NGOs.

"*We fully support this proposal as it will enable water to be taken when it is really available, as opposed to when it is expected to be available. It allows 'environmentally-safe water' to be taken when it is there, and it restricts the taking of water when damage could result"* – Blueprint for Water.

"*It seems common sense to me to allow abstraction when adequate water is available whatever the time of year, so I would support this approach.*" – a farmer from the East of England.

Over half of those who indicated their support for the proposed change qualified that support in some way, highlighting some of the issues identified in “Overview of responses” above, and in addition:

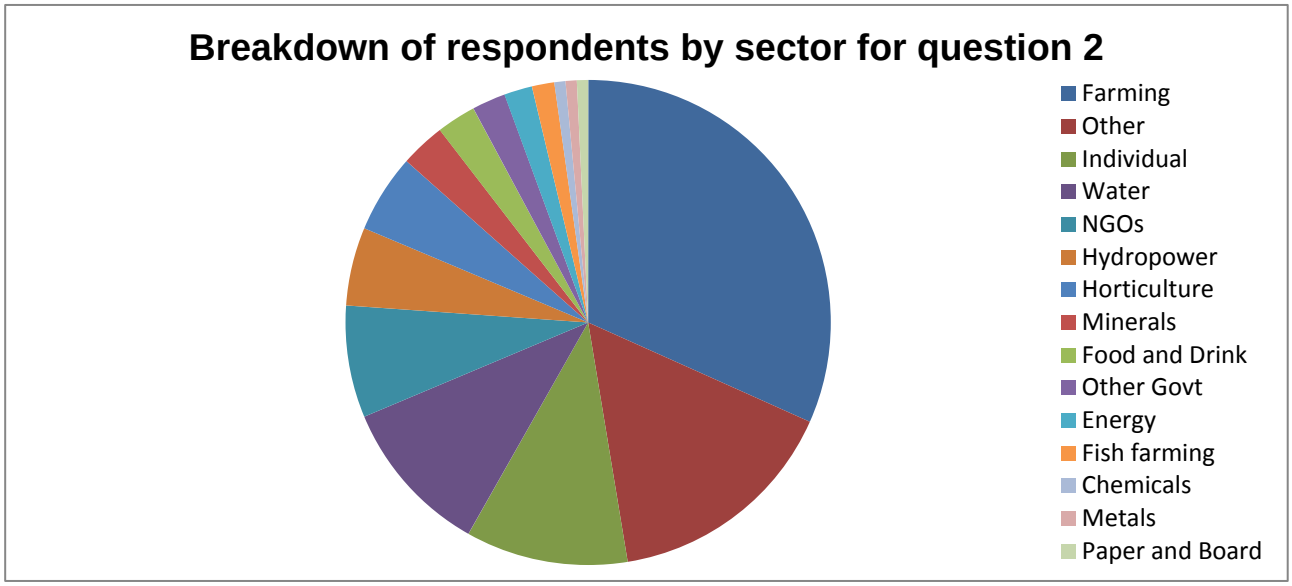
- Lack of clarity from some sectors about the implications of this proposal for them (mainly Food and Drink and Minerals);
- The need for water for emergency activities irrespective of availability;
- Concern from the horticultural sector that their particular water abstraction needs, associated with growing protected crops[4], had not been considered;
- The need for more understanding of how seasonal licences will change and the consequences for businesses which are reliant on abstracted water (mainly potato growers); and
- The need to preserve high flows at some times of year, for example for fish migration to occur.

Those not supportive of the change raised concerns such as:

- Allowing abstraction to take place at any time of year could be damaging to environmental sites, particularly in the summer months at times of high stress;
- Businesses may not have the space or the capital to invest in storage on sufficient scale; and
- Permissions in a reformed system should not impact on the rights of existing abstractors not currently subject to seasonal constraints and who need reliable access to water (energy sector).

[4] Covered crops entirely reliant on artificial irrigation for their water.

Question 2: What do you think about the different proposed approaches to linking abstraction to water availability for surface water and groundwater abstractions?



There were 272 responses to this question. 60 respondents expressed support for CSP, 25 supported Water Shares and 8 thought a hybrid or phased approach should be adopted. 13 respondents were opposed to any reform which linked abstraction to availability, frequently citing a need for a guaranteed supply of water. 166 respondents did not express any preferred system for linking abstraction to availability; 19 of these stated that insufficient detail was available at the time to reach an informed decision.

> *"We are leaning towards Current System Plus as our preferred option. Partly due to concerns about the complexity associated with the system development requirements for setting water availability levels within catchments for the Water Shares proposal, also, the increased business continuity risk associated with the changing volumes that may be available on such frequent occasions."* - Lafarge Tarmac

Comments on the approach in Current System Plus

Many supporters of CSP thought that it would be easier to implement than the Water Shares option. Some felt that this point was sufficiently important to identify CSP as their preference, despite recognising additional benefits in the Water Shares proposal. Some

respondents, representing a range of sectors, felt that the proposed operation of CSP would fit better with their existing operations and business models.

Comments on the approach in Water Shares

Most supporters of the Water Shares option felt that there was more opportunity for efficiency under this option. Some respondents felt Water Shares would lead to more responsible use of water within the catchment. No particular sectors of abstractors expressed an overwhelming preference for Water Shares.

Concerns expressed about Water Shares included how well this option would work in catchments where river flows and levels vary rapidly in response to rainfall, complexity of operation, and increased implementation costs.

Most water companies expressed concern that their "Deployable Output" could be detrimentally impacted by the Water Shares option. See 'Next steps' for how we are taking this point forward with Water Companies.

Alternative approaches

A number of respondents suggested alternatives to the distinct options presented in the consultation, including:

- Taking elements of both Current System Plus and Water Shares, with catchments moving into a water shares based system when beneficial to the abstractors in that catchment;
- Making the more advanced elements of reform proposed for enhanced catchments available optionally within any catchment;
- Having different allocation periods for the different reliability groups in the Water Shares option; and
- Abstractors who discharge could hold shares in a specific group which could be traded along with those generally issued.

See 'Next steps' for information on how we are exploring some of these ideas.

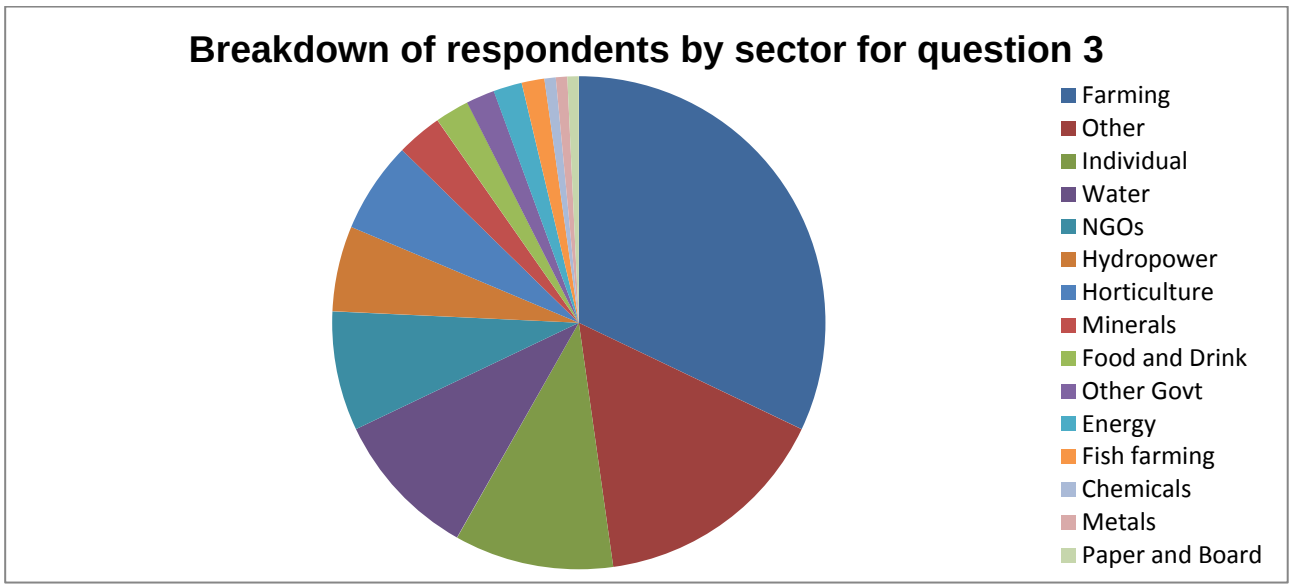
Concerns raised

A small number of abstractors raised concerns about these proposals, most of which were sector specific, including:

- Animal welfare issues caused by variable access to water, cited by farmers and racecourses;
- More variable access to water could add a new dimension to the energy market with knock on effects on prices for consumers;

- The need in the power sector for reliable access to cooling water in order to meet peak generation demands; and
- Practical issues that could limit benefits or add costs, including, for example, the potential need of some abstractors to update assets such as pumps with fixed pumping rates to variable rate models.

Question 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?



There were 268 responses to this question. 158 respondents said they would find the proposal to gradually reduce abstraction before stopping completely helpful. This included abstractors from a range of abstractor sectors and environmental NGOs. 38 respondents said they would not find this helpful.

Of those who responded positively, almost half either wanted further information about the proposals or raised points they wanted considered, including:

- The provision of adequate warning about abstraction reductions;
- Pumping equipment limitations;
- How to encourage and allow greater local management input from abstractor groups in sharing out a diminishing resource;
- Using a graduated approach to the Regulatory Minimum Level as well as HoFs;

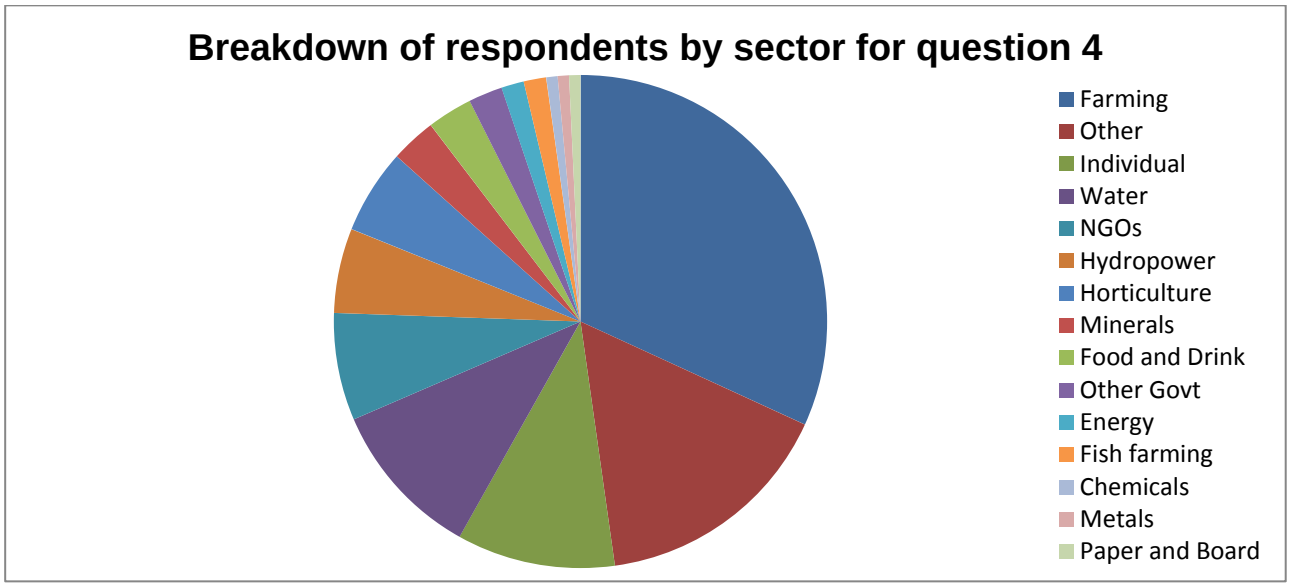
- How to ensure compliance with variable limits; and
- Additional costs associated with extra monitoring and graduated pumping.

Concerns raised by those who responded negatively to the proposal (predominantly from water industry, farming and horticultural sectors) included:

- Impacts on Water Company Deployable Outputs;
- Monitoring requirements; and
- A perceived reduction in environmental flows.

There were also several responses, particularly from farmers and growers, that the environment receives too high a level of protection and that its requirements may need to be reduced along with those of abstractors. This is in contrast with Environmental NGOs, who want us to go further, adding additional or more stringent HoFs to licences at abstraction-sensitive sites. The Chartered Institution of Water and Environmental Management (CIWEM) also advocated the use of additional HoFs in environmentally sensitive areas.

Question 4: Do you think the proposal to protect the environment using a regulatory minimum level (RML) at very low flows is reasonable?



There were 270 responses to this question. 193 respondents were in favour of protecting the environment using a regulatory minimum level at very low flows. 32 respondents did not agree with this proposal.

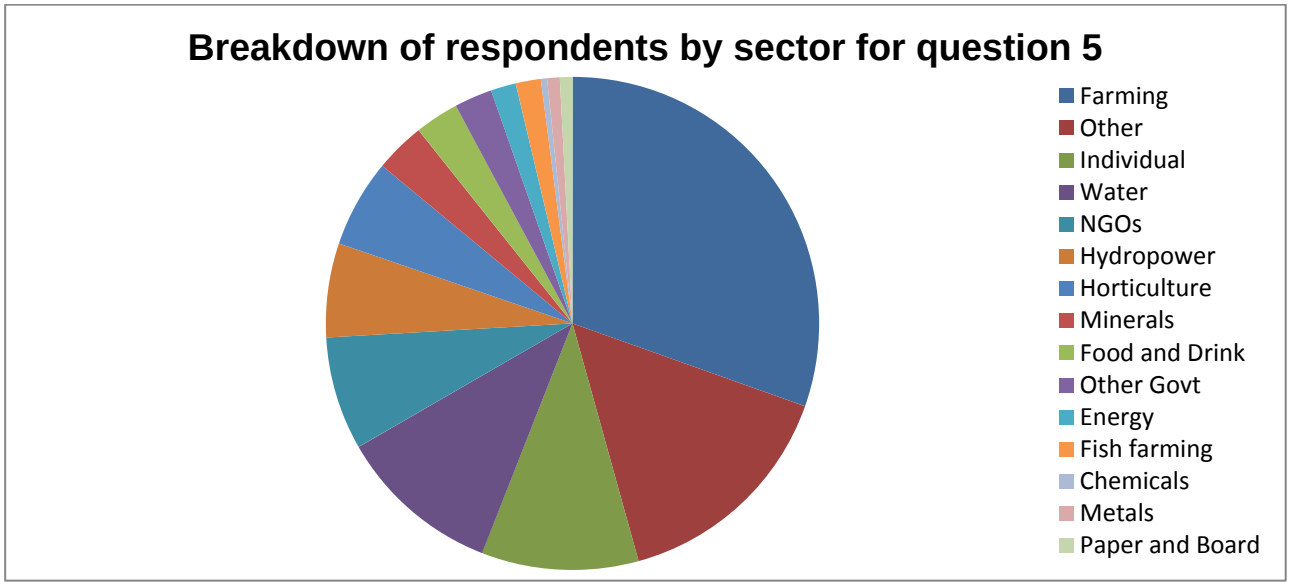
A number of respondents who supported the principle of setting a Regulatory Minimum Level (RML) to protect the environment at very low flows provided caveats on how the RML should be applied or asked for further detail on how it would be set, including:

- How the RML links to drought management;
- That the RML should apply to all abstractors and section 57 of the Water Resources Act 1991[5] should be removed (farming sector);
- Ensuring RML is based on good science, at a local level;
- Impacts on Water Company Deployable Outputs - impacts should be considered via the Water Resource Management Planning process, with costs and customer impacts taken into account;
- How compliance will be ensured;
- Allowing abstractors sufficient time prior to implementation of reform to assess impact on their operations;
- The importance of exactly where the RML is set – the majority of environmental NGOs said it should be set at Q95[6] – and of protecting a range of levels, not just very low flows; and
- The possibility of gradual restrictions to abstractions to try and prevent flows reaching the 'very low' levels instead of restrictions only occurring with the RML.

Those who did not agree with the proposal were mostly concerned about the impact the regulatory minimum level might have on output, for example food production, energy supply or manufacturing. Some said it was unfair to put the environment first during very low flows and that there should be more of a balance between abstractors and the environment.

[5] Section 57 of the Water Resources Act 1991 gives the Environment Agency / Natural Resources Wales powers for "Emergency variation of licences for spray irrigation purposes when there has been an exceptional shortage of rainfall or other emergency."
[6] The flow of a river which is exceeded on average for 95% of the time. This would be typical of a low summer flow.

Question 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?



There were 242 responses to this question. 165 respondents believed that it was a good idea 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. 13 respondents were not in favour of this proposal.

> *"Very good idea as it makes this water then available lower down the catchment" – a farming sector respondent*

Over half (88 of 165) of those who responded positively to this question were conditional in their support and raised additional questions or concerns such as:

- How it would work in practice, including for groundwater abstractors;
- What the impact would be on water quality;
- If requiring abstractors to discharge a proportion of what they take provides a disincentive to store surplus water during periods of high availability;
- One solution may not suit all abstractors;
- If it could incentivise discharges of substandard water and that discharges should be regulated with the environment in mind, not just viewed as a potential downstream abstraction resource;

> *"Discharging water close to the point of abstraction is a good idea. However, chalk streams are pure water, so any 'recycled' water is going to degrade the quality of the water in this instance." –Ver Valley Society*

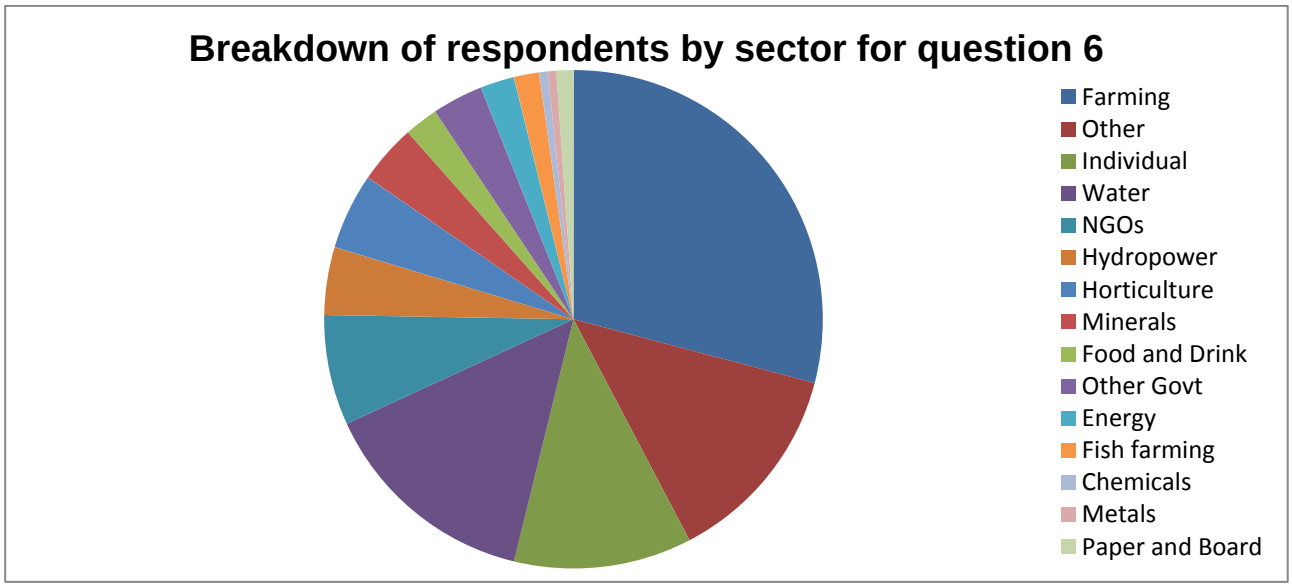
- The proposal could potentially work against those abstractors who find ways to reuse more water on site and therefore over time may discharge proportionately less than they abstract; and

- How discharges would be defined and calculated and that more clarity was required around terms such as "consumptive abstraction", "close" and "current pattern".

Please see 'Next steps' for information on further work we are doing to consider some of these points.

Reasons cited by those who did not support the proposal included the expense and difficulties of discharge measurement implementation and also reduction in abstractors' flexibility to operate.

Question 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?



There were 182 responses to this question, expressing a variety of views. Of those who responded to this question, approximately half offered some form of detailed response.

Many understood why discharges were important to rivers but stated they were unqualified to suggest any specific proposals.

The majority of water companies agreed that the value of water company discharges to river systems should be recognised in a reformed system. 58 respondents from a range of sectors believed that water company discharges needed greater regulation, monitoring and enforcement. 36 of those had specific concerns about ensuring the water quality of discharges and warned of the dangers of not doing so. There was also some support for the development of a system that promoted catchment management with abstractions and discharges being treated more holistically.

More than 30 respondents requested or offered to be involved in further work on this topic, as proposed in the consultation document.

Some of the themes that emerged from question 5 also arose in response to question 6. This information has not been repeated here.

The water and sewage sector were well represented with over 20 companies or related bodies submitting detailed responses. Given the specific nature of this question, the section below is divided into water industry responses and those from other sectors.

Water industry responses

The majority of responses from the water industry stated that further work was required on this proposal. Key points made about this proposal included:

- Water Only Companies (WOCs, who abstract water but do not make sewage discharges) were concerned that they could be marginalised, and sought reassurance that their needs would be taken into account.
- Concern from water companies (both WOCs and Water & Sewerage Companies) about the potential impacts of a requirement to discharge specified volumes from defined locations because their discharges are affected by many other factors, for example, rainfall, so they cannot guarantee the quantity that would be discharged at any time;
- The need to consider potential impacts on customers' bills;
- Potential to stifle innovation by prescribing discharge patterns;
- The need to consider Water Framework Directive requirements, which for example might lead to the closure of a waste water treatment works due to failing water quality in a water body;

- Components of the current charging system can incentivise discharge to sea or create disincentives to discharge altogether[7];
- Further consideration should be given to how the value of discharges could be recognised by quantifying this resource and incorporating it into some form of crediting or trading scheme; and
- Impacts on water efficiency initiatives.

> *"Companies could be incentivised to provide additional discharges which will provide water that will benefit the environment and could be traded with downstream abstractors. This could provide a driver for further development of water reuse schemes to be undertaken by Water Companies and could also provide a further driver for the trading market" – Southern Water*

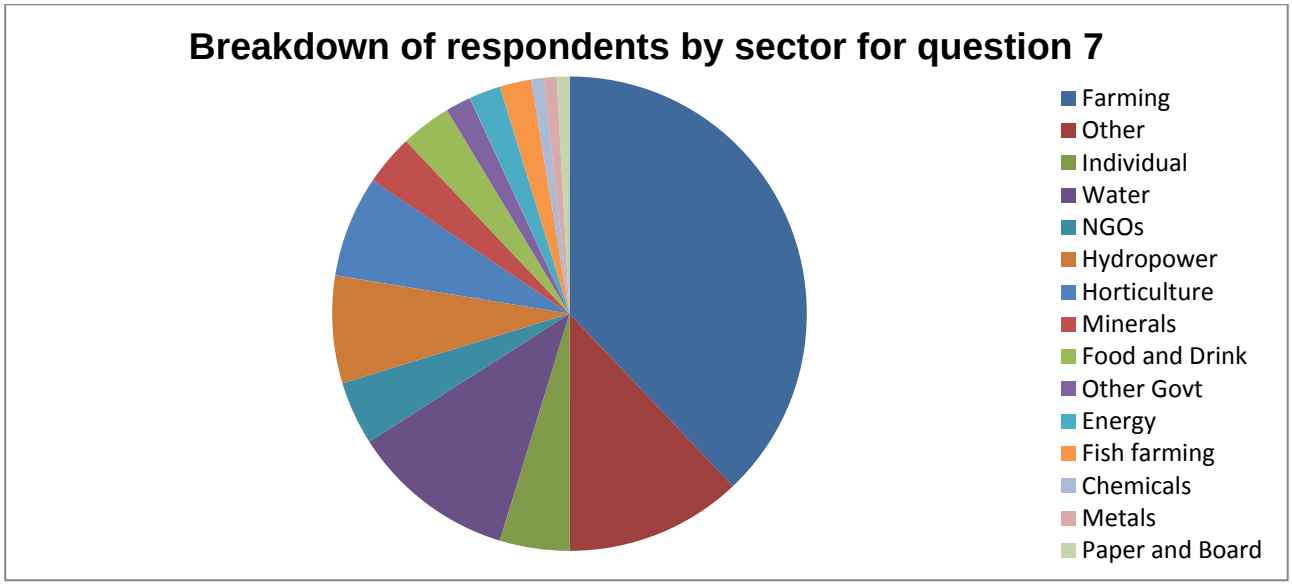
Other sectors

A number of respondents from other sectors raised issues for us to consider further, including:

- Broadening out this proposal to include discharges from other sectors which could be of value to downstream abstractors (particularly minerals and canal/navigation sectors);
- The need to consider how inter-catchment transfers are taken into account; and
- That abstracted water should, wherever possible, be discharged locally and at an appropriate quality. Many farming and environmental interest groups expressed concern over the impact that any proposal will have on water quality, particularly for sensitive habitats like chalk streams.

[7] Because of how discharge permits are currently costed, it can be cheaper to discharge to non-designated coastal areas where, for example water quality standards might be less stringent due to greater dilution flows. The same system has a volumetric charging component which can be a disincentive to additional discharging.

Question 7: If you are an abstractor, how would these charging proposals affect your business?



There were 232 responses to this question, giving mixed and wide-ranging views. In general the responses highlighted the need for more detailed information on the charging proposals and suggested that further consultation would be needed (see 'Next steps'). 49 respondents suggested that the charging proposals would not affect their business as they were a spray irrigator and already subject to a two part tariff. 25 respondents thought that the changes would lead to an increase in charges or costs.

Many respondents were in favour of linking charging to actual use and charging based on the reliability of water but did not want their bills to increase. A small number noted that abstractors might save money by only paying for the water they used and by taking advantage of abstracting and storing high flow water.

The points most commonly made were that the charging proposals should:

- Be based on licensed quantity and actual abstraction;
- Be linked more closely to consumptiveness;
- Be linked to the reliability of water; and
- Not increase abstractor bills.

Alternative suggestions made included:

- Building the cost of abstraction to the environment into the charging formula;
- Paying people to store flood water in their storage reservoirs;
- Ensuring that charging provisions take into account the efficiencies sectors have already made; and

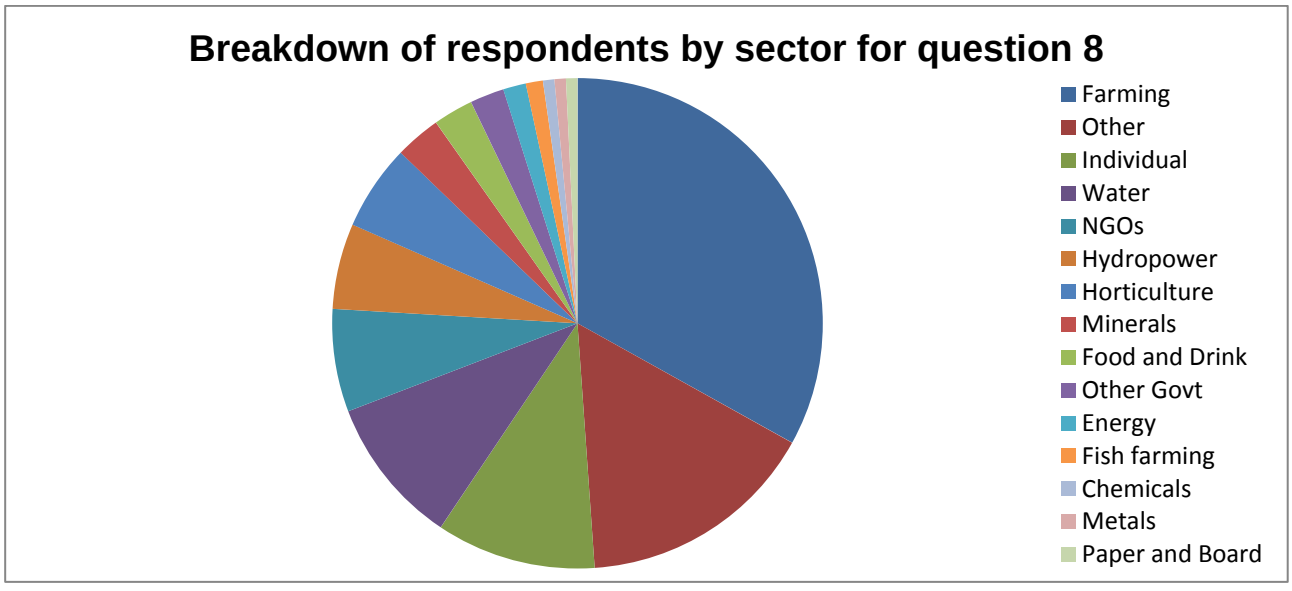
- Ensuring that charging provisions take into account the “polluter pays” principle.

> *Charges should “recognise that abstractions from the lower limit of rivers or from saline waters pose a much lower environmental risk than abstractions further up river catchments”* - Associated British Ports

Those who perceived the changes would lead to an increase in charges or costs gave the following reasons:

- They needed access to water all year round and would therefore end up paying more for a high reliability licence;
- The abstraction management system would be more complex to run and therefore charges would need to be raised in order to maintain cost recovery;
- Abstractors would end up paying more due to either building storage to take advantage of high flows or by paying for higher reliability licences; and
- Increased metering costs would be required to support these charging proposals.

Question 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?



There were 266 responses to this question. 95 respondents agreed that charging based on a two part tariff would encourage abstractors to use water more efficiently. The majority of farmers who already have a two part tariff supported its extension and agreed that it would help abstractors to think more about water efficiency. The majority of environmental NGOs

who responded to the question were positive that the proposals would lead to water efficiencies being made by abstractors. 46 respondents disagreed that charging based on a two part tariff would encourage abstractors to use water more efficiently.

Of those that provided a positive response the majority identified issues to consider further, including:

- The level of efficiencies made would be dependent upon the level at which the licensed quantity unit charge and actual abstraction unit charge were set;
- There would need to be significant savings for abstractors to consider building storage reservoirs to take advantage of high flows or changing processes/installing new technology to be more water efficient;
- Charging based solely on actual use, rather than considering licensed quantity, would encourage the most efficient use of water; and
- Efficiencies would be greatest if the charging formula reflected water scarcity and the economic benefit to abstractors.

Those who disagreed that the two part tariff would lead to water efficiencies gave reasons such as:

- Abstractors do not ‘waste’ water; many are already efficient and because it is expensive to pump water they only take the water they need;
- The cost of water is so low in relation to other costs, that the charging of water is unlikely to drive efficiencies;
- Some abstractors need water all year round and would not be able to change their operations. Charging proposal would only benefit abstractors with variable usage;
- Impacts on bills overall due to cost-recovery nature of charging scheme; and
- Those who are already efficient may be penalised if they are unable to make further water efficiencies. Further efficiencies may not be technically feasible for some abstractors.

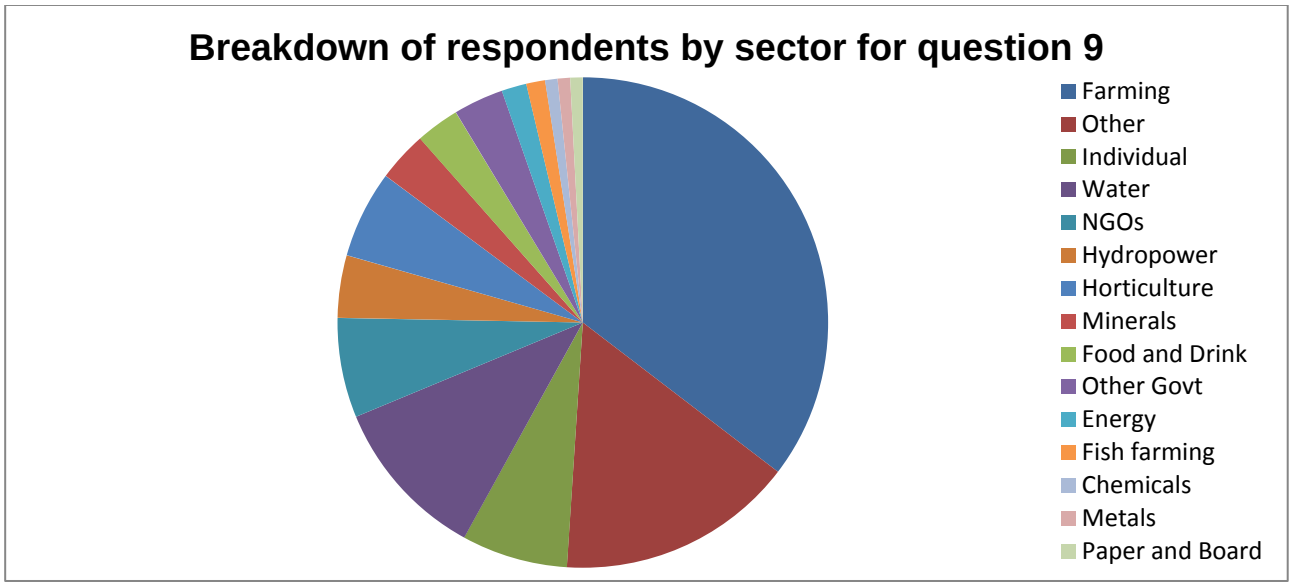
A number of suggestions were made from a range of sectors about this proposal, or other ways to encourage efficient water use, including:

- Water efficiency should be taken into account when licensing water e.g. only those who are efficient should be allowed to abstract low flows;
- Water efficiency should be a factor within the charging calculations;
- Charges should be proportional to the environmental impact to fully incentivise efficient use and encourage abstraction from less damaging sources;
- Charges should be related to the economic benefit obtained by the abstractor;
- The regulator should change the way they consider licence renewals as when abstractors renew licences they have to prove their need for water, which encourages

abstractors to take their full licensed quantity at least once in the period in order to retain their licence;

- Abstractors should be paid not to use licences or licences should be bought back to allow re-distribution of water; and
- Charges should be based on actual usage with the flow level driving the price formula. By increasing the cost of abstraction in reduced flows the abstractor is then incentivised either to economise or seek alternative supply.

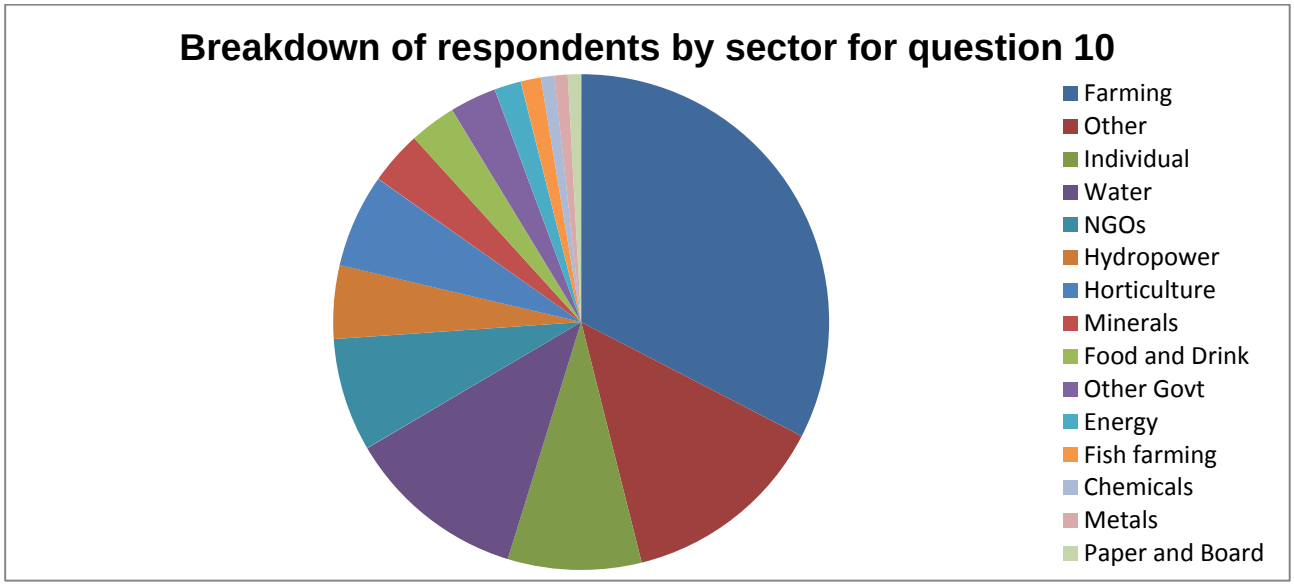
Question 9: Would quicker and easier water trading benefit abstractors now? How beneficial do you think it would be to abstractors in the future?



There were 243 responses to this question. 148 respondents considered quicker and easier trading would be of benefit to abstractors. 43 respondents believed there would be no benefit for them from improved trading in a reformed system.

Due to the interlinked nature of the responses to questions 9 and 10, responses are summarised together below.

Question 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?



There were 230 responses to this question. 47 respondents believed the Water Shares option would increase benefits of trading. 73 respondents did not anticipate additional benefits from Water Shares.

The majority of support for proposals covered by questions 9 and 10 came from the farming and horticulture sectors. However, a minority of farmers (10) felt there would be no benefit for them. A number of responses from a variety of sectors suggested that partnerships, local or catchment groups should be established to facilitate trading and wider effective water resource management. There was no major difference in responses between those with and without abstraction licences.

A small number of respondents commented on the potential for trading to be of particular benefit in the future, saying that the proposals would be increasingly valuable, particularly if climate change impacted on future water availability.

The current system was acknowledged by many to be too complex and unhelpful for facilitating trading. Those who supported the proposals, across all sectors, wanted a quick, transparent and simple to access trading system with minimal levels of bureaucracy.

> *'Improved trading opportunities are a potentially useful part of the overall solution to managing scarce water resources and so farmers and growers will welcome the introduction of a simple, flexible, cost effective – and workable – trading system.' – NFU.*

Of those who believed that there would be benefits, many qualified their response in some way, covering a range of issues across the sectors, including:

- The possibility of manipulation of the system driving up prices;
- Uncertainty around the practicalities of how the trading mechanism would work in relation to water availability, security and cost;
- The potential to trade could encourage perverse behaviour prior to transition to justify retaining licensed quantities;
- Large abstractors could dominate the market and force out smaller abstractors;
- Water abstraction rights could be separated from use and traded as a commodity, and concern that water should not be viewed as a commodity;
- Trading would not provide reliable resources to enable long term planning and investment;
- A potential lack of regulator capacity to support and regulate trading;
- The need for increased transparency to enable those interested in trading to understand the likely value of water and who else might be abstracting in their catchment;
- The need for adequate environmental protection to be in place;
- The proposals may not benefit large abstractors if there are no other abstractors in a catchment with sufficient quantity of water they wish to sell; and
- Trialling trading in some catchments would be important.

Those who did not believe there would be any benefit for them from improved trading in a reformed system gave a variety of reasons, including:

- There would be practical difficulties setting up trades;
- The current system already allows for trading;
- The greatest demand for trading would occur at the time when resources were least available for trading; and
- The benefits would be limited by the number of abstractors interested and able to trade.

> *"Trading will impact adversely on the small volume abstractors who don't have the resources to manage this type of activity" – Ipswich Golf Club.*

Some sectors felt they would not benefit such as non-consumptive abstractors (e.g. hydropower) or industrial abstractors who require a very consistent supply.

Water Shares

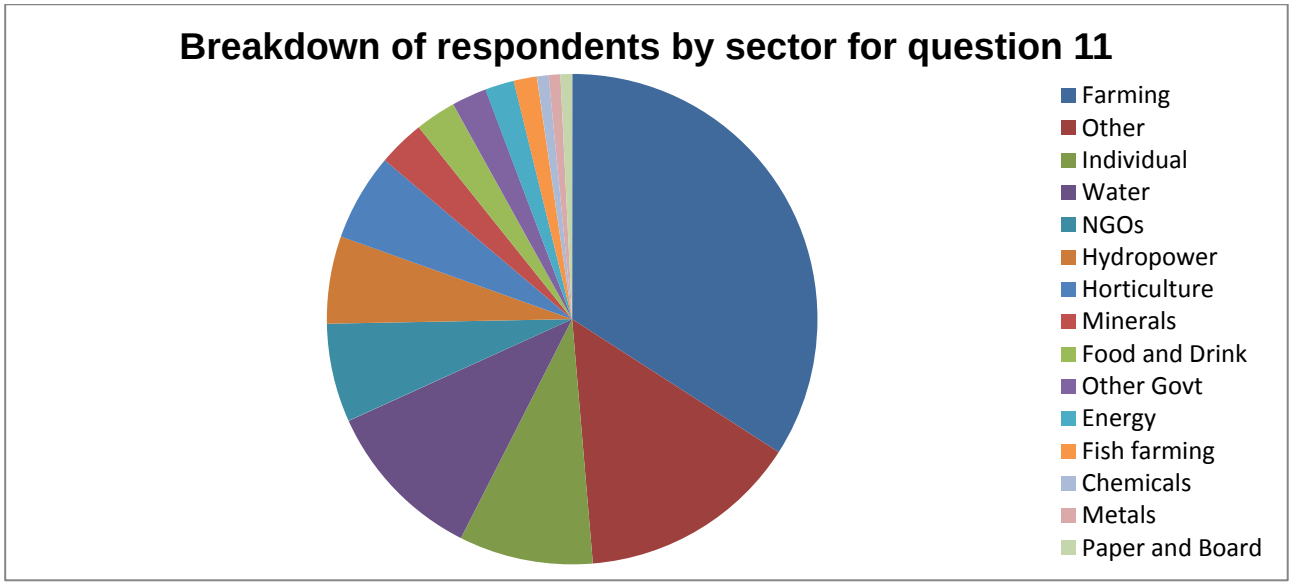
Only 47 respondents considered the Water Shares option to increase benefits of trading, citing such reasons as Water Shares being necessary to establish an effective market. Compared to other sectors, a higher proportion of farming and horticultural respondents believed there could be additional benefits of the Water Shares option.

A number of those who thought there were advantages to trading considered that the benefits of Water Shares would be outweighed by the added complexity and cost of this option.

73 respondents did not anticipate additional benefits from Water Shares and gave a number of reasons to explain, including:

- Concerns about unintended impacts of the more extensive market created by the Water Shares option;
- Concern over the increased commoditisation of water under the Water Shares option; and
- Belief that Current System Plus could deliver the same functionality as Water Shares.

Question 11: Do you agree that participation in abstraction trading should initially be limited to those with a direct interest in abstracting water?

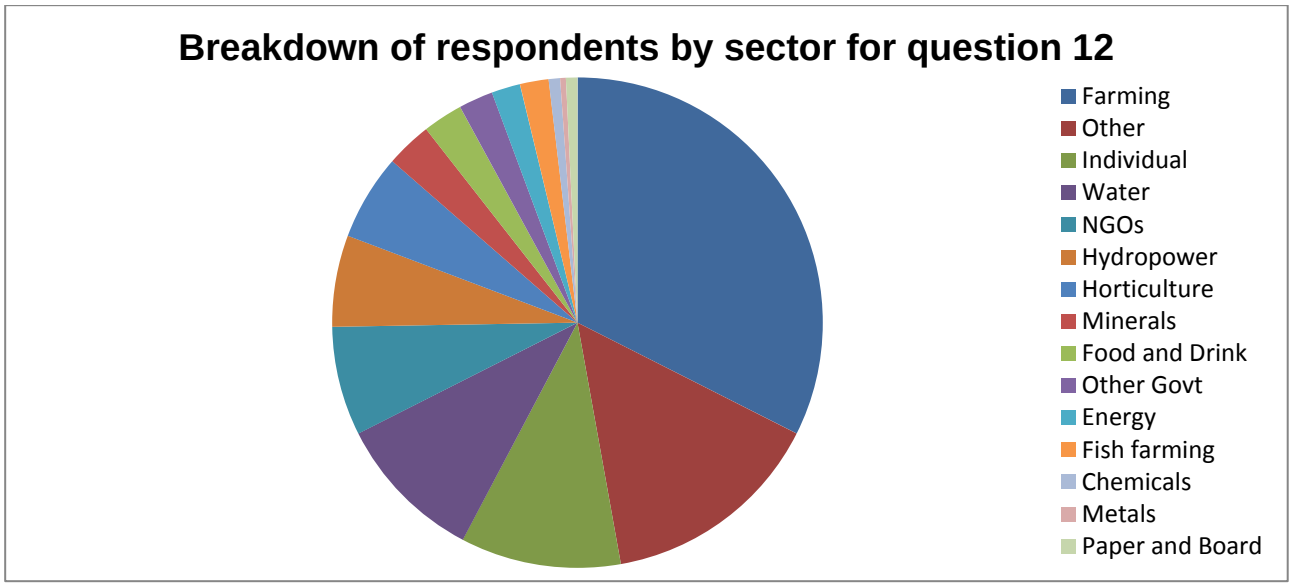


There were 261 responses to this question. An large majority (211), from across all sectors, supported the proposal to limit participation in abstraction trading to those with a direct interest in abstracting water, to avoid the risk of speculation in any water markets by non-water users. Many respondents also suggested such limitation should be permanent rather than temporary. Only 7 respondents disagreed with this proposal.

Amongst sectors there were differences on what a 'direct interest' should mean. For example, some environmental NGOs suggested that they should be considered to have an interest in water if they wished to purchase abstraction permissions to prevent them being used, to protect the environment. However the Countryside Landowners and Business Association (CLA) suggested this should specifically not be allowed.

It was pointed out by some respondents that businesses planning to invest in water intensive industries may wish to purchase abstraction permissions through trading prior to actually abstracting to ensure their investment was going to be viable.

Question 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?



There were 265 responses to this question. 165 respondents were broadly supportive of the proposals for a more consistent approach to making changes to abstraction conditions. 34 respondents did not support the proposal.

Respondents from a number of sectors expressed the view that a more consistent approach would provide certainty to allow long term investment. Many thought that this would provide a fairer system than is currently in place.

> '*Food and drink businesses need long term certainty of supply to enable future investment to take place which will in turn help meet our future food security needs. The current time-limited approach does not support the need for long term continuity.' – Food and Drink Federation.*

Implementing the review process

A number of respondents offered views on how the proposals could be implemented or had concerns regarding the proposals, including:

- The role of the Environment Agency in implementation, how they would manage the proposed process of reviews and if they had sufficient resources;
- Wanting ‘review thresholds’ to be clearly defined and to understand how they would be set;
- Requiring clear definitions of terms such as ‘unacceptable environmental damage’ and ‘serious damage’; and
- Any risk assessment process should be developed and agreed in advance with stakeholders, supported by an improved evidence base linked to suitable periods of robust monitoring.

Changing abstraction permissions in the reformed system

A number of respondents made suggestions for the process that would determine actual changes to abstraction conditions of individual licences, including:

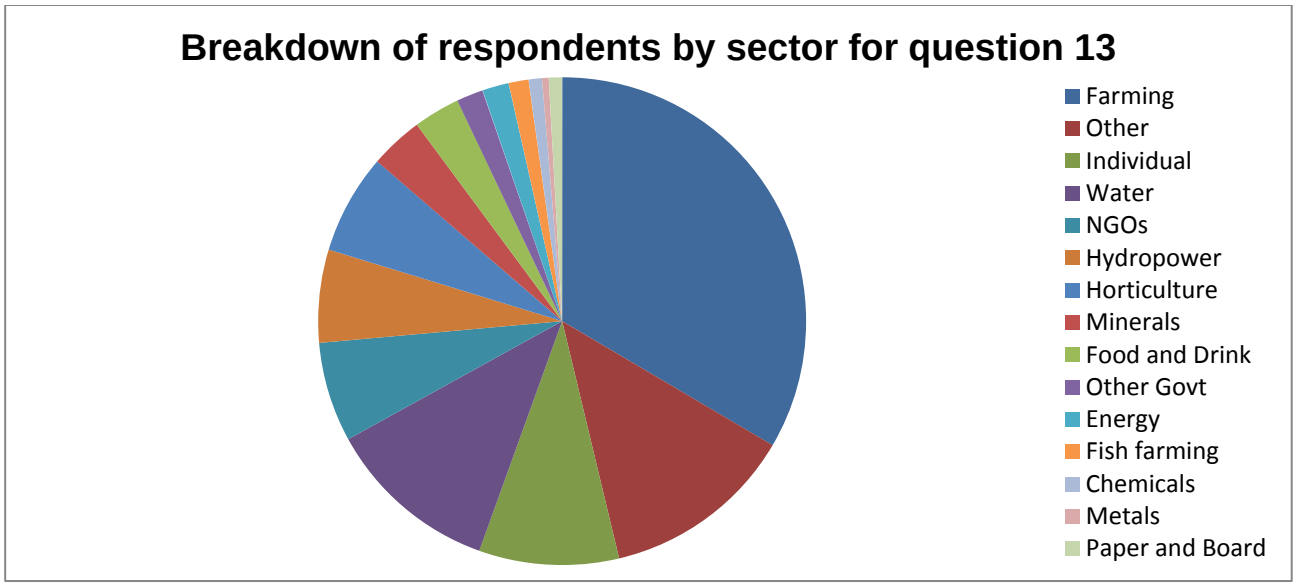
- Changes should be evidence based, site specific and considered for all abstractors in a catchment;
- Consideration should be given to different sectors’ needs and importance, typical usage, the pressures and regulations that affect them and the economic benefits/effects;
- Consideration would be needed of whether changes were being made to high or low reliability permissions;
- Changes should be made in consultation with all abstractors or with those that hold the largest licensed volumes in a catchment;
- Terms for making changes to abstraction conditions should be clearly specified in a legal document and should include an appeals process; and
- Consideration should be given to the importance of future, closer collaboration amongst water users across catchments in order to help manage future water needs.

Those respondents who did not support the proposals cited reasons such as:

- Changes to the current system were not needed because either the current system works or the need for change has been overstated;
- The proposals should not apply to existing abstractors’ conditions but only to new abstractors;

- The proposals should not apply to certain sectors. For instance, the farming sector only uses limited volumes of water and the hydropower sector is non-consumptive; and
- The proposed system would mean that abstractors would not have guaranteed water availability.

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



There were 227 responses to this question. 55 respondents agreed with the six year notice period suggested in the consultation document; 98 respondents suggested notice periods of between one to six years were acceptable; and 36 respondents suggested variable notice periods, ranging between 1 and 30 years.

27 respondents suggested aligning the notice period to existing management cycles. These included Catchment Abstraction Management Strategies (CAMS) (six years), River Basin Management Plans (six years), Water Resources Management Plans (five years) and Water Companies' Price Reviews (five years).

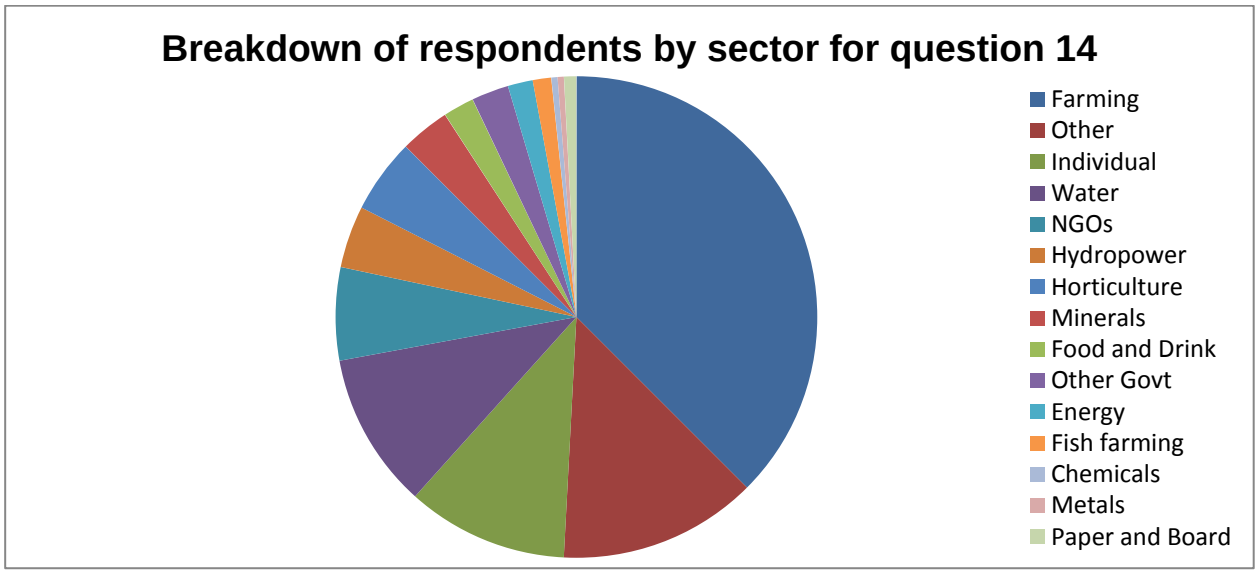
> *'We think that abstractors have a reasonable right to notice of any change in entitlements to abstract water. The longer the notice period, though, the longer the environment stands at risk of damage. Balancing between the two, a notice period of six years between the need for change being determined and its implementation seems appropriate.' – Blueprint for Water.*

Of respondents who thought that notice periods should be variable, the reasons for this included:

- The variable nature of the change to the abstraction licence, e.g. if the change was large more notice was needed than for a small change;
- The type of business of the abstractor, e.g. the importance of the abstractor's business to the economy and society, such as energy production, food production, public water supply;
- To allow abstractors time to develop alternative plans to adapt to changes to abstraction permissions and to fund those plans;
- To allow a return on investments that have already been made, e.g. packing facilities, cold storage; and
- Notice periods should be equivalent to the repayment period of any investment, which could be up to 4 CAMS cycles (6 years per cycle).

Some respondents stated they answered this question on the basis of a major decrease in abstraction volume or the complete removal of an abstraction permission, rather than the smaller changes that are more likely under a reformed system.

Question 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?



There were 240 responses to this question, expressing a range of views about this proposal. 136 respondents supported the proposal and 79 respondents were opposed to it. Generally water companies supported the proposals given that their right to compensation was to be

removed anyway through legislation (Section 58 of the Water Act 2014), meaning licence changes would be considered as part of Ofwat's Price Review process. Environmental NGOs were the only other group to unanimously support the proposal. A high proportion of those opposed to the proposal were from the farming and horticulture sectors.

Points made in support of this proposal included:

- For Water Companies, the Price Review is seen as a generally easier and more efficient route for achieving changes;
- It would be helpful in developing a shared responsibility for the health of catchments; and
- The current system of compensation does little to incentivise abstractors to take measures to address the impact of reduced water availability.

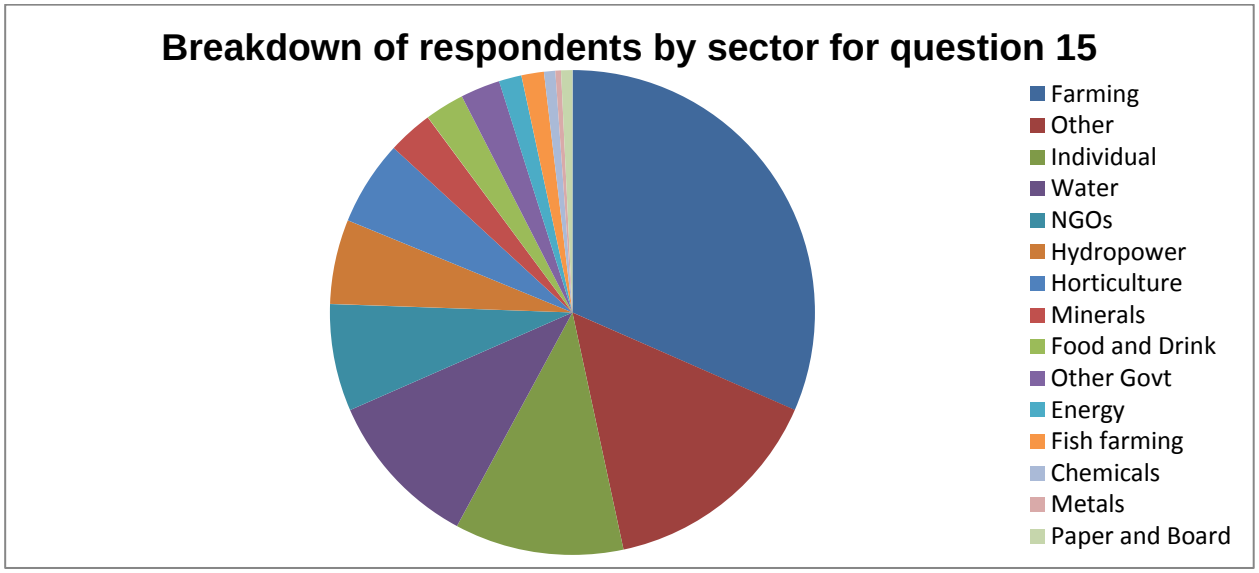
> *"We do support the phasing out of EIUC and compensation payments as long as businesses are given sufficient time to prepare for changes to their licence conditions." – a farming sector respondent.*

Concerns raised from those who opposed this proposal included:

- The preservation of property rights and land values inferred by a licence and the impact on businesses and planning (particularly the farming and horticulture sectors);
- Compensation should come from general taxation anyway, rather than the specific abstractor tax of EIUC; (particularly farming and horticulture sectors);
- The need to consider the removal of licences under Human Rights legislation; and
- Savings from the removal of the phasing out of the EIUC may not adequately compensate for the impact on the capital value of abstractor businesses of changes needed to licences.

Some respondents asked for further information on how the carryover of any outstanding or incomplete Restoring Sustainable Abstraction (RSA) licence changes could work in practice and a number stressed the absolute importance of the completion of the RSA programme before the implementation of abstraction reform. Several respondents questioned where accumulated EIUC would go and if there were an opportunity for funds to be used creatively, for example in river restoration.

Question 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?



There were 266 responses to this question. Over 200 respondents supported the proposed objective of protecting the environment from deterioration when moving licences into a reformed system. 21 respondents did not support this objective.

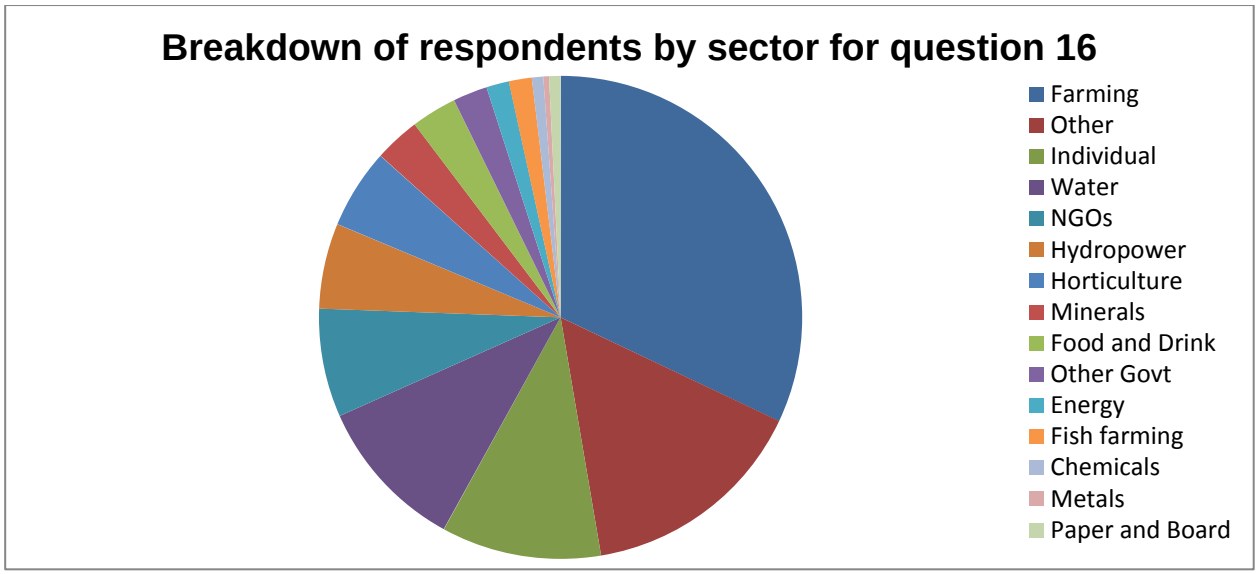
Many of the supporters for these measures referenced the Water Framework Directive or other environmental legislation requirements, recognising the value of the environment. A minority (73) qualified their support, identifying a number of issues to be considered further, including:

- The regulator should be using existing powers to ensure that all catchments have sustainable levels of licensed abstraction before we move into a reformed system (particularly those with an interest in chalk stream habitats). Some stated that 'no deterioration' was not going far enough as an objective;
- Questions over the appropriateness of Environmental Flow Indicators as part of the basis for assessing the sustainable level of abstraction. Some suggested that where better site specific data had been gathered this should be used to determine the compliance objective (particularly water industry and energy sectors);
- Concern that transition would be used as a 'blunt instrument' to reduce permitted volumes in some catchments (particularly farming and horticulture sectors); and
- Rather than remove volumes of water at transition, the regulator should seek to do this through the review process of the new system.

Of those who did not support taking measures that would protect the environment from deterioration when moving into a new system, almost half were from the farming sector. The main reasons given for not supporting our suggested approach were:

- The importance of maintaining food production capacity; and
- The potential that the environment will be altered by climate change and trying to protect it to current standards will lead to an unacceptable impact on agricultural output.

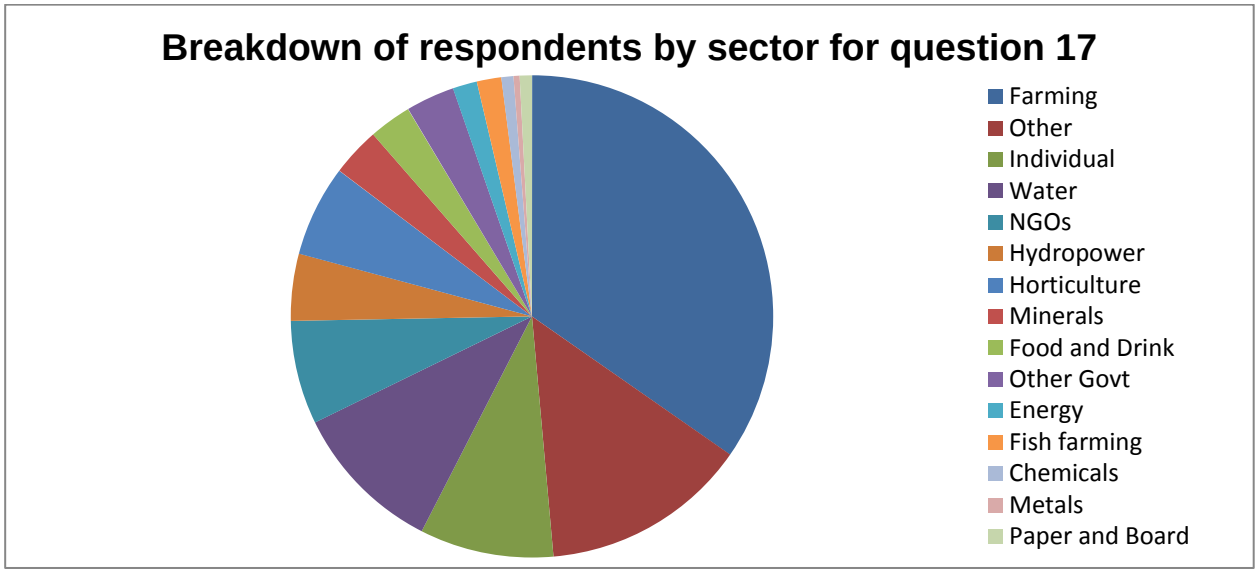
Question 16: Would you prefer us to consider the risks in each catchment when designing the rules for moving licences into a new system, or should we treat all abstractors in the same way regardless of water availability?



There were 262 responses to this question. A large majority (198) favoured the catchment specific approach when designing the rules for moving licences into a new system. Only 10 respondents favoured the universal approach. There was considerable support for the use of nationally set rules being applied and assessed at a catchment level.

29 respondents, from a range of sectors, suggested alternative approaches, mostly focussing on the need to consider issues at a smaller scale than a catchment when designing rules for moving licences into a new system. Some, most notably water companies, suggested each case had to be individually assessed, but many felt a sub catchment or river stretch represented the most appropriate scale for assessment (the scale currently used to assess water resources).

Question 17(a): 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)?



[8]

There were 245 responses this question.

A range of views were expressed on the best way to assess previous use, including:

- Opposition from the water industry to the options given in the consultation, stressing that modifying licence volumes based upon recent usage (by any of the proposed mechanisms) would endanger their ability to supply their customers and trigger investment in the next planning cycle to meet this deficit in supply;
- Support from the water industry and Hydropower sector for the development of sector specific rules for assessing previous use.
- Opposition from farming sector respondents to any rule which looks only at average use, given their usage varies significantly from year to year. 21 farmers said they should retain their existing licensed volumes, 16 suggested an assessment based upon historic maximums and 29 favoured an assessment which looked at average use, but with added 'headroom' based upon their existing licence quantities.
- The suggestion from some farmers and growers that consideration should be given to assessing use against periods of peak solar radiation to quantify peak demand;
- Calls from industry (including minerals & metals) and the energy sector for a system where forecasts of productivity would be used to justify the volumetric requirements of any transitioned licences; and

[8] Pie chart shows sector of those who responded to at least 1 part of Q17

- Concern from a small number of respondents from various sectors that abstractors who had invested in water efficiency measures would be disadvantaged compared to competitors who had not.

> *"The FUW believes that there needs to be a balance between potential environmental problems and the need to ensure that businesses are not adversely affected when moving licenses into the new system*." – Farmers Union for Wales

A number of respondents commented that they did not feel qualified to answer this question.

> *"We are concerned that the current consultation does not sufficiently propose how current abstraction licences will be transitioned into the new system."* – Salmon and Trout Association.

Question 17(b): What assessment period should be used to calculate them?

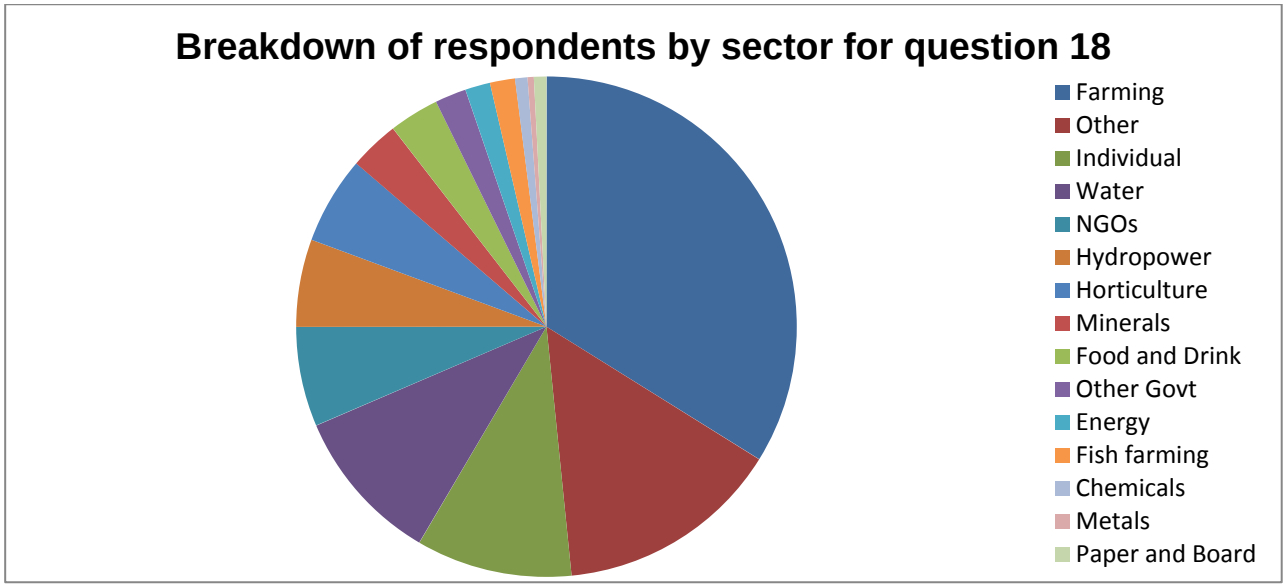
There were only 162 responses to the second part of question 17.

80 respondents expressed a preference for a historic view, the vast majority of whom said that annual variations in weather had to be recognised either by considering a long period (34 respondents, the majority of which were farmers) or by considering a historic or 'designed' drought event (24 respondents, mostly water companies). Only 15 respondents said that a 6 year period (the length of a current catchment scale water availability assessment under CAMS) was appropriate to assess usage over. Only 7 respondents said that a short (0-2 year) period would be appropriate.

A number of other approaches were suggested or points raised by various respondents, including:

- There should be different rules for different sectors or abstraction behaviours;
- There should be individual assessment;
- Focussing on historic use should discourage "gaming" of licences in the lead up to reform so as to maximise the volumes given to abstractors in a new system;
- Using an element of forecasted demand; and
- The development of a number of alternative acceptable calculations to give individual abstractors the option to choose the one that is best for them.

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



There were 223 responses to this question, expressing a range of views on the proposal. 61 agreed with the proposal; 70 agreed but qualified their answer; 81 did not agree with the proposal; and 11 misunderstood the proposal.

Reaction to the proposal was mixed across most sectors. One exception was the horticulture sector where most of the respondents agreed with the proposal. Energy sector respondents did not support the proposal, saying that the trading market was sufficient to allow access to water for new entrants and that creating reserves would penalise existing abstractors.

Of the respondents who supported the establishment of an economic reserve without qualification, the key theme was that it was important to support new businesses, expanding businesses and economic growth.

> "*Yes, as this could support and stimulate new business entrants - as long as it does not disadvantage existing abstractors." – Chemical Industries Association.*

Those who supported the reserve made a number of suggestions about this proposal, including:

- Reserves could be created by the voluntary surrender of unused water from licences;
- Reserve water should be used solely as a strategic reserve that licence holders can call on in a dry/drought year, assuming the water is available;
- Reserve water could be allocated on a seasonal basis for those who needed it during that period; and

- Reserve water should only be allocated to those who can prove that they are already highly efficient in their water use.

From the respondents who qualified their support, the points raised included:

- A clear definition of ‘unused’ water from which the reserve would be established would be needed. A number of respondents stated that it should not include licensed water existing abstractors need for growth;
- Creating the reserves should not impact on existing abstractors' business operations now or in the future;
- The need to assess each catchment individually to determine the suitability of creating a reserve;
- Concern that the reserve should only be created from water that was truly unused, not from water that supported the sustainability of catchments (NGO sector);
- New entrants should not be given priority access to allocations of reserve water over existing abstractors;
- Reserve water should be prioritised for food production/essential uses over non-essential uses such as leisure and amenity (farming and horticulture sectors);
- Reserve water should be held for use only in drier periods to help existing abstractors; and
- Other solutions to water availability must be put in place for when reserve water runs out, such as measures to improve efficiency.

A small number of respondents felt that, while they supported the proposal in principle, they needed more information on how the reserve water would be allocated before they could give full support.

Of those that did not support this proposal the emerging themes were:

- The establishment of an economic reserve would be unnecessary if the trading market worked effectively and, in fact, the presence of reserves would prevent a market from forming;
- Licensed volumes of water should remain with existing licence holders;
- Existing abstractors should not be penalised by having their volumes reduced to support new entrants;

> *“It could be said that creating a reserve is simply 'robbing Peter to pay Paul'. How would it be proven that the beneficiary of a reserve licence is more worthy than the licensee that has had its licence reduced?”* - Northumbrian Water

- Creating reserves would remove the incentive for new businesses requiring water to set up their operations in catchments where there is already water available;
- Taking unused water from existing abstractors would undermine investment plans they may have based on headroom on their licence; and
- Reserves would only benefit a small number of people so may not be worth the administrative effort.

Additional issues raised in consultation responses

As well as responding to the questions in the consultation, some respondents provided additional comments about issues relating to abstraction reform more generally.

Impact assessment

A small number of respondents felt that the Impact Assessment (IA) was a very high level assessment, and provided insufficient detail with regards the information behind the IA. As a result it did not enable a full understanding of the approach, assumptions and conclusions being made about the reform proposals.

There was also some concern that the IA over-estimated the savings to the water industry, and provided insufficient details of the benefits and savings for other sectors. Another respondent suggested that there was insufficient information in the IA about the costs to abstractors of responding to legislative change.

The energy sector highlighted the importance of the additional Trent and Derwent modelling that was due to be in the final IA. The catchment incorporated power sector abstractors, who were not a feature of the other catchments modelled for the consultation document IA.

There was also a suggestion that the IA should have considered the possible, future impact of shale gas and fracking on water resources.

See ‘Next steps’ for information on further work on assessing impacts.

Impacts of future regulatory change

Some respondents were concerned about their ability to cope with the changes to the way in which future abstraction licences would be managed.

Others were concerned about the level of change to a range of regulatory processes that was due to take place over the next five to ten years and their capacity to cope with the volume of change. One respondent explained that with: the regulatory changes to current exempt abstractions; the transfer of abstraction licences into the Environmental Permitting Regulations regime; and abstraction reform, there would be a lot of change to deal with.

The lack of firm timetables for these changes was also of concern.

Some sectors whose abstractions were currently exempt from the licensing system, such as the mineral sector (dewatering of quarries) and horticulture (trickle irrigation), were concerned about how this abstraction activity would be dealt with under abstraction reform in view of the delay in the implementation of the legislation ending these exemptions.

Incentives for reservoir construction

Responses were generally in support of reservoir construction but farming and horticultural sector respondents said that the provision of taxation capital allowances would be needed in order to incentivise construction.

The National Farmers Union highlighted a recent study[9] by Cranfield University that had identified the various constraints faced by farmers and growers when planning a new on-farm storage scheme. The largest single constraint was difficulty in obtaining the considerable amount of capital needed to invest in a project. Difficulty experienced in obtaining necessary permissions such as planning also featured in the report.

The CLA also added that the building of reservoirs may involve the granting of permissions for abstracting minerals (sand and gravel) and that planning authorities' stance on this had also been known to cause delays in construction.

Water Resource Management Planning

Abstraction reform transition would be taking place at the same time as the next round of Water Company Water Resource Management Planning in 2019. One respondent suggested that work be undertaken as soon as possible to update the WRMP process to ensure that it aligned with the reformed abstraction management system.

UK water security and strategic planning

A number of respondents asked for more strategic planning of the UK's water resources. They asked that Government produce a high level water security strategy setting out the benefit and value of water to society, the economy and the environment, and discussing aspects such as scarcity resilience, water storage and interconnection infrastructures.

Water and food security

This issue was highlighted by a range of respondents from the food and farming sectors. For example, the Food and Drink Federation and National Farmers Union reminded Defra about the challenges set out in the Government's Foresight report on the Future of Food and Farming. They proposed that Defra ensure that reform proposals took full account of the priorities in the report. The sector believed that food and farming was likely to require a net increase in water use in the future across the sector rather than a decrease, even with

[9] Cranfield University, 2014, Water for agriculture: collaborative approaches and on-farm storage

efficiency gains. The CLA and other respondents suggested that a proportion of water should be ring-fenced or reserved exclusively for the farming and horticultural sectors to ensure food security.

Next steps

After consideration of the consultation responses, and further policy development, the UK Government will agree a preferred approach for England and the Welsh Government will agree a preferred approach for Wales. The UK Government is committed to being ready to legislate early in the next Parliament and implementing the reforms in the early 2020s. We will be looking to make key decisions on which to base legislation in 2015.

The Welsh Government will set out its detailed policy in relation to future water management in Wales in its final Water Strategy.

The cross sector support for the need for reform of the abstraction management system is helpful for the Welsh Government in deciding on the next steps for abstraction reform in Wales. A number of responses highlighted the benefits of maintaining similar systems for both Wales and England and Welsh Government and Defra will continue to work together as far as possible to this end.

Ongoing work

We are currently working on a number of areas responding to issues raised through the consultation process, including:

- Using a number of case studies to explore with water companies how the objectives of reform can be still be reached without impacting on their statutory duties to provide security of supply;
- Exploring potential hybrid options that draw on both Current System Plus and Water Shares options;
- Examining the interaction between drought regulations and abstraction controls at low flows to consider how best to manage very low flow and drought conditions;
- Furthering our understanding of the relationships between flow variability and river ecological response through two technical projects being managed by the Environment Agency;
- Looking at good practice from other countries on setting “environmental flows” and considering this good practice in relation to our current and future systems of water resources management by application to a number of case studies;
- Examining different options, including doing nothing, to regulate water company and other standalone discharges to manage risks to those who rely on these discharges

while also not compromising other goals such as water quality and water company efficiency;

- Exploration and scoping of a new scheme of abstraction charges to allow the continued charging for water abstraction and impoundment on a cost recovery basis;
- Developing our approach to groundwater regulation further and testing that it can be tailored to suit different types of aquifers;
- Working with stakeholders to develop the final approach for how we will move existing licences into any new system; and
- Improving the modelling to assess the impacts of reform options, in particular through modelling the Trent and Derwent rivers basin.

Annexes

Annex A – Feedback from consultation workshops (February/March 2014)

During the consultation period, we held four workshops in London, Manchester, Peterborough and Cardiff, which were attended by more than 200 people. During the sessions, we asked the following questions:

- What did people like about the proposals?
- What concerns did people have about the proposals?
- What aspects of the proposals would people like more clarity on?

A large amount of information was collected from the workshops; this annex provides a summary of the key themes raised. A number of these reflect key themes from the consultation responses.

What do you like about the proposals?

- Linking abstraction to available flows, including the removal of seasonality and access to additional water at high flows;
- The removal of time limited licences;
- Taking a catchment based approach to reform, including the distinction between basic and enhanced catchments;
- The Current System Plus option;
- The facilitation of trading, including the pre-approval of trades and the potential for an increased range of trades under Water Shares;
- The proposal to limit trading to those with a direct interest in water abstraction;
- The openness of the consultation and the workshops; and
- The principle of paying for what water is used.

What concerns do you have about the proposals?

- How licences would be transitioned into the new system considering the need for fair treatment of all abstractors, the need for confidentiality and difference between historic and future needs;
- How the removal of compensation would affect the value of land and how the remaining money collected for compensation would be used;
- How the government would make the system fair for all given the diversity of abstractors.
- The lack of detailed discussion on how to incentivise and increase water storage;
- What the added complexity of Water Shares would mean for abstractors;
- If the Environment Agency would have the resources to manage a new system; and
- The trading proposals, in particular the dominance large or high value users may have in the market and the potential for speculation.

What aspects of the proposals would you like more clarity on?

- The definitions of words and terms used, for example ‘discharge points’;
- How trading would actually work in practice, for example, how charging for traded water would operate;
- How the water reserves would be operated, for example, who would make the decisions on how reserve water was allocated and where reserve water would come from;
- How Water Shares would be allocated and how the day to day management of Water Shares would operate; and
- How the environmental standards would be set and environmental flow indicators would be used by the Environment Agency.

Annex B: Organisations that responded

Action for the River Kennet

Agriculture and Horticulture Development Board

Anglian Water

Arun and Rothers Rivers Trust

Associated British Ports

Atlantic Salmon Trust

Blueprint for Water

Bristol Water

British Aggregates Association

British Beer and Pub Association

British Ceramic Confederation

British Growers' Association Ltd

British Horseracing Authority

British Hydropower Association

British Soft Drinks Association

British Tomato Growers' Association

Broadland Agricultural Water Abstractors Group

Buckingham Canal Society

Cambridge Water

Canal & River Trust

CBI Minerals Group

CC Water

CDP

Central Association of Agricultural Valuers

Chesham Town Council

Chilterns Conservation Board

CIA - Chemical Industries Association

CIWEM

CLA

CLA - Eastern Region

Committee on Climate Change Adaptation

Confederation of Paper Industries

Confederation of UK Coal Producers (Coalpro)

Cosine Geoscience Limited

Cucumber Growers Association

Dales Water

Darts Fisheries Association

Dee Valley Water

Downham Market Group of Internal Drainage Boards

E.ON

East Suffolk Water Abstractors Group

EDF Energy

Ely Drainage Boards

Energy UK

Engenius Limited

Envireau Water

ES International

Esk Energy (Yorkshire) Ltd

Essex Wildlife Trust

Farmers' Union of Wales

Food and Drink Federation

Friends of the Mimram

Hampshire & Isle of Wight Wildlife Trust

Herefordshire Water Abstraction Group

Herts and Middlesex Wildlife Trust

High Peak Borough Council

Horticultural Trades Association

Howes Percival LLP

Imerys Minerals Limited

Impress the Chess

Institution of Civil Engineers

Ipswich Golf Club

Kelda Water Services (Defence) Ltd

Kent County Council

Lafarge Tarmac

Lea Valley Growers Association

Lincoln Heath Water Abstraction Group

Lincoln Water Transfer Ltd

London Fire Brigade

McCain Foods

Micro Hydro Association

Mid Kent Golf Club

Middle Level Commissioners

Mineral Products Association

MWH Global

Natural England

Natural Hydration Council

Natural Resources Wales

NFU

NFU Watercress Association

Norfolk Wildlife Trust

North Level District Internal Drainage Board

Northumbrian Water

Ofwat

Ouse & Adur Rivers Trust

River Chess Association

River Lark Abstractors Group

River Lynher Association

River Nar Abstractors Group

RSPB

Salmon & Trout Association

Seaton Carew Golf Club

Sembcorp - Bournemouth Water

Severn Trent Water

Sibelco UK Ltd

Soil Association

South East Water

South West Rivers Association

South West Water

Southern Water

SSE

Tata Steel

Thames Water

The Potato Processors' Association

The Racecourse Association Limited

UK Coal Surface Mines Ltd

UK Irrigation Association

UKELA (United Kingdom Environmental Law Association)

United Utilities

Velcourt Limited - Eastern Region

Veolia

Ver Valley Society

VolkerStevin

Water for Food Group

Water UK

Welland and Deepings Internal Drainage Board

Welsh Water

Wessex Chalk Stream & Rivers Trust

Wessex Water

West Sussex Growers' Association

Western Hydro Limited

Whitby Esk Energy

Wildfowl & Wetlands Trust

Worcestershire Wildlife Trust

WWF UK

Yorkshire Water