

Response to EA consultation about the draft EA Water Company Drought Plan Guideline

A General comments

1. The draft EA Water Company Drought Plan Guideline is to be commended for its clear and concise wording. The easy to navigate structure of the document further promotes its use. Presumably the revised EA Water Company Drought Plan Guideline will also have a table of contents that will refer to the main headings in the consultation document, and further sub-headings, in order to pinpoint quickly specific information.
2. The comments below refer to both the proposed changes highlighted in yellow in the consultation document and text of the previous June 2011 version of the EA Water Company Drought Plan Guideline.
3. The comments are based on empirical social science research ¹ carried out so far for the independent academic MaRIUS ² project funded by the Natural Environment Research Council.

B Specific comments

1. More detailed provisions about environmental monitoring carried out by water companies

We welcome the proposed key changes to the existing EA Water Company Drought Plan Guideline which provide for more detailed information about environmental monitoring to be carried out by water companies when preparing drought plans and in relation to implementing specific actions during drought (pp. 23-26 of the draft EA Water Company Drought Plan Guideline).

2. Defining drought

The draft EA Water Company Drought Plan Guideline asks water companies to set out in their drought plans 'chosen triggers and what they do (eg establish that a drought is occurring)' (p. 7). This definition, however, focuses on droughts as caused by changes in the natural environment. There is a significant body of social science research which defines drought more broadly as a *social-natural* phenomenon which is also caused by social behaviour, as evidenced e.g. in demand for water, patterns of land use and transport choices. ³ Drought can therefore

¹ The research is based on primary qualitative empirical data gathered through firstly, interviews with key participants in managing drought and water scarcity in the UK, and secondly, through analysis of relevant public policy documents and legal provisions.

² Managing the Risks, Impacts and Uncertainties of Droughts and Water Scarcity, NERC grant no. NE/L010364/1.

³ See e.g. Vanessa Taylor, Heather Chappells, Will Medd, Frank Trentman, 'Drought is normal: the socio-technical evolution of drought and water demand in England and Wales, 1893-2006' (2009), *Journal of Historical Geography*, 35 (3), 568-591; K. Collins and R. Ison, 'Living with environmental change: adaptation as social learning' (2009), 19 (6), *Environ Policy Governance*, 351- 357; D. A. Wilhite et al. 'Understanding the complex impacts of drought: A key to enhancing drought mitigation and preparedness' (2007), *Wat. Resour.*

be defined in *relational terms* as an acute and adverse lack of water available for a range of both environmental and economic uses of water.⁴ Moreover, our research suggests that local businesses would sometimes like to see greater consideration in final drought plans of their responses about the impact of droughts, submitted in response to draft drought plans.

Recommendation:

to reword the last point in the current list of drought triggers (draft EA Water Company Drought Plan Guideline, p. 9): *'any other appropriate measures, such as socio-economic indicators of drought'*.

3. Key organizations involved in drought planning: Ofwat and Natural England

Our interview data suggest that Ofwat seldom comments on draft drought plans, also because this may not be central to its core work of commenting on the strategic direction of water resource management, as set out in water company Water Resource Management Plans and Business Plans, during the assessment management planning cycle.

Recommendation:

to focus and expand Ofwat's role to comment in detail on the more fundamental and strategic water company Water Resource Management Plans which, in turn, shape to some extent water company Drought Plans. This may entail a reconsideration of Ofwat's role as a statutory consultee for water company drought plans.

Our research so far suggests that Natural England plays a limited role as a consultee in shaping drought plans, though its expertise and clear focus on nature conservation and land use management suggest that it has the potential to play a significant role in reducing environmental impacts of drought management.⁵ This matters also in light of the fact that Art. 8 (1) third indent of the European Union Water Framework Directive (WFD) imposes legal obligations on the UK to protect nature conservation sites. The inclusion of marine conservation areas in the new draft EA DP guideline is to be welcomed.

Recommendation:

to list on page 2 of the EA's draft Water Company Drought Plan Guideline Natural England as one of the organizations that water companies involve in preliminary discussions in order to provide opportunities to contribute to the development of water company drought plans at an early stage.

Managnt. 21 (5), 763-774; G.A. Cole and T.J. Marsh, 'The impact of climate change on severe droughts: major droughts in England and Wales from 1800 and evidence of impact' (2006), Report to Environment Agency, SC040068/SR1, 54 pp.; D. A. Wilhite and M.H. Glantz, 'Understanding the drought phenomenon: the role of definitions' (1985). *Water. Int.* 10, 111-120.

⁴ Including e.g. also tourism and leisure.

⁵ Lange and Cook (2015) 'Mapping a developing governance space: Managing Drought in the UK', *Current Legal Problems*, 33.

to consider making Natural England a statutory consultee for draft drought plans.

4. Relationship between Water Resource Management Plans and Drought Plans

The draft EA Water Company Drought Plan Guideline does not address in much detail the relationship between Water Resource Management Plans (WRMPs) and Drought Plans. Since water scarcity and drought are now considered as a greater risk in some parts of the UK, also due to climate change, water company Drought Plans may no longer be just operational plans but start to play a more strategic role in the prevention and management of water shortages.

Our research suggests that those water companies that are already experiencing a significant risk of water scarcity and drought include in their current drought plans sections on their 'strategy' for preventing and mitigating water shortages, such as enhancing the integration of their supply network across their water supply zone or developing reservoirs that are shared with other key abstractors in overabstracted catchments.

Recommendation:

*to include in the draft EA Water Company Drought Plan Guideline a section that clarifies the relationship between WRMPs and Drought Plans, building also on the EA Discussion Document from June 2014 'Improving links between water resources management plans and drought plans' and experiences gained from Northern Ireland Water's new 'Water Resource and Supply Resilience Plan' which integrates water resource management and drought planning. Also the alignment of the planning cycles for WRMPs and drought plans in England and Wales which is now five years - also for drought plans – should facilitate greater integration of WRMPs and drought plans.*⁶

*To include a section in the EA Water Company Drought Plan Guideline which recommends that water companies set out their overall strategy in relation to the prevention and management of drought and water scarcity, with this also to explain how the water company drought plan has been shaped by the company's WRMP. This should refer in particular to sections in the WRMP that describe actions that ensure the long-term resilience of the water undertakers' supply systems.*⁷

5. Relationship between water company statutory drought plans and EA voluntary drought plans

The draft EA Water Company Drought Plan Guideline (p. 8) clearly states that water company drought plans should be consistent with a range of plans, including EA/NRW voluntary drought plans. Our research so far suggests that in practice there is limited integration of EA/NRW voluntary and water company statutory drought plans. The question how EA voluntary drought planning can best be linked to water company drought planning will become even more important when EA drought planning moves to a more local level after its recent re-organization.

⁶ S. 39 B (6) (c) Water Industry Act 1991.

⁷ S. 2 (2 DA) Water Industry Act 1991.

Recommendation:

to include a sentence after the indent referring to ‘the EA or NRW’s drought plan’ that reads: ‘In particular water companies may want to set out in their drought plan how their drought control and trigger curves are consistent with drought triggers in the relevant EA drought plan’.

6. A hierarchy of drought management options

Various parts of English environmental law already rank different environmental management options in order to steer towards those options that have the least impact on the environment. For instance, Regs. 12 and 15 of the Waste (England and Wales) Regulations 2011 set out a hierarchy of waste management options that ranks waste prevention, before reuse, before recycling before treatment. Such ranking of environmental management options also implements the legal principles of prevention⁸ and precaution.⁹ The latter has been applied by English courts e.g. in order to interpret policy provisions.¹⁰ Hence the draft EA Water Company Drought Plan Guideline asks water companies to consider how they will stop their actions to have negative effects on the environment before, during and after a drought (draft EA Water Company Drought Plan Guideline, p. 7).

Recommendation:

to add to the current wording ‘what you’ll do to stop your actions having a negative effect on the environment before, during and after a drought’ the sentence: ‘including what steps you have taken in order to prioritize demand management over supply side measures, and in particular what steps you have taken to ensure that drought orders and drought permits are only used in exceptional circumstances’.

The draft EA Water Company Drought Plan Guideline (p. 10) currently asks water companies to state how they intend to ‘reduce demand for water’ during a drought. Our research suggests that water company drought plans currently contain limited information about demand for water by commercial and industrial customers during normal operating conditions. More information about this baseline of demand for water will also enable to identify possible water savings during drought. Research about past droughts, such as the 1976 drought, suggests that industry and commerce have been able to achieve very significant water savings during drought.¹¹

⁸ Which suggests that pollution of other environmental damage should be prevented, not merely remedied once generated (Elizabeth Fisher, Bettina Lange and Eloise Scotford, ‘Environmental Law: Text, Cases and Materials’ (2013), Oxford, Oxford University Press, 411).

⁹⁹ Which suggests that lack of full scientific certainty should not be a reason for delaying measures that can prevent or minimize threats to human health or environmental protection (Elizabeth Fisher, Bettina Lange and Eloise Scotford, ‘Environmental Law: Text, Cases and Materials’ (2013), Oxford, Oxford University Press, 412).

¹⁰ Elizabeth Fisher, Bettina Lange and Eloise Scotford, ‘Environmental Law: Text, Cases and Materials’ (2013), Oxford, Oxford University Press, 434.

¹¹ For instance, 20,000 gallons of water were saved per day in hospitals in the West Country and a water reclaiming plant was set up for a hospital laundry which saved 23,000 – 26,000 gallons per day (Western Morning News, 19th of August 1976, Front Page). In Plymouth industry reduced its water consumption from 20 million to 13 million gallons per day, with leakage rates at about 30% (Western Morning News, 22nd of September 1976, page four).

Recommendation:

to add to the current sentence in the draft EA Water Company Drought Plan Guideline (p. 10) 'to reduce demand for water, and to show with reference to baseline data about demand for water during non-drought conditions what percentage of voluntary or imposed savings water companies expect to achieve with their industrial and commercial customers during drought'.

7. Guidance in relation to Strategic Environmental Assessments for drought plans

The draft EA Water Company Drought Plan Guideline (p. 17) currently states that water companies may have to carry out Strategic Environmental Assessments (SEAs). More detailed guidance here may help water companies to decide whether they have to carry out a SEA. Our research suggests that a minority of water companies in England and Wales carry out SEAs for drought plans.¹² SEAs are clearly required for Water Resource Management Plans.

Recommendation:

To add to the current wording of the draft EA Water Company Drought Plan Guideline (p. 22): 'You may need to carry out strategic environmental assessment (SEA) of your plan if the actions in it are likely to have a significant effect on the environment'. In particular the EU SEA Directive requires environmental assessments to be carried out for all plans and programmes which are likely to have significant environmental effects, and:

- a) are prepared for water management and which set the framework for future development consent of projects listed in Annexes I and II to Directive 85/337/EEC or*
- b) which, in view of the likely effect on sites, have been determined to require an assessment pursuant to Art. 6 and 7 of Directive 92/43/EEC.*

If you are not under a legal obligation to carry out a SEA for your drought plan, state how the SEA for your Water Resource Management Plan may have been relevant for mitigating the environmental impact of your drought management strategy, and specific actions, set out in your drought plan'.

8. Reference to the EU Water Framework Directive (WFD)

We welcome that throughout the draft EA Water Company Drought Plan Guideline there are now more references which prompt those involved in the management of drought to consider the impacts of drought management actions on achieving compliance with the WFD (e.g on p. 18-19). A key question here is: which drought management actions will be exempt from compliance with the WFD under the narrowly worded criteria of its Art. 4 (6). This states that temporary deteriorations of the status of water bodies can be exempt, and while they must be caused by exceptional and not reasonably foreseeable natural causes, such as prolonged drought, river basin management planning must consider the effects of prolonged droughts and measures taken to mitigate such effects on achieving WFD objectives.

¹² Bettina Lange and Christina Cook, 'Mapping a developing governance space: managing drought in the UK' (2015), *Current Legal Problems*, 14.

Recommendation:

To slightly amend the wording of the existing text to read: ‘Summary of likely environmental effects (include details for features of moderate and major sensitivity, and minor sensitivity features from designated sites) and assess whether any of these effects jeopardize achievement of the objectives of the EU Water Framework Directive, including whether they might be covered under the Art. 4 (6) WFD exemptions.

9. Precautionary drought planning

We welcome that the draft EA Water Company Drought Plan Guideline asks those involved in drought management to consider a range of severities of drought, including extreme and long drought. It may be worthwhile, however, to specify the level of drought severity to be considered, especially if the intention is that planning takes into account drought scenarios that may be worse than historic worst droughts that have occurred in the UK (draft EA Water Company Drought Plan Guideline, p. 7). Our research so far suggests that Climate Change predictions are considered only to a limited extent in current water company drought planning.

Recommendation:

To amend the current wording on p. 3 of the draft EA Water Company Drought Plan Guideline: ‘You should plan for all droughts that you might reasonably expect to experience in your supply zone/s. To do this you should include how you will deal with events of both long duration and very low rainfall. You should state how you have considered specific climate change predictions for this.

10. Impact of trading in shares in water on water availability

It may be worthwhile to include references in the revised EA Water Company Drought Plan Guideline to abstraction reform, and in particular references that prompt water companies to state how they have considered the consequences of possible water trades on water availability also during drought. Our research so far suggests that bulk supply agreements and transfers of water between neighbouring water companies can be quite significant for water security. We welcome the addition of the reference to ‘division of shared resources’ in the draft EA Water Company Drought Plan Guideline (p. 8).

Recommendation:

To add to the current wording on p. 8 of the draft EA Water Company Drought Plan Guideline: ‘any agreements you have with other water companies about bulk supplies, transfers of water or division of shared resources’, and the impact of any water trading arrangements you have entered into on the availability of water resources during drought’.

11. Drought plans as facilitating learning from previous droughts

Drafting drought plans can be an opportunity to consider experiences of previous droughts and to build on these when specifying drought management actions for possible future droughts. This has moved increasingly to an evidence based approach. Hence, drought plans now also include information about anticipated impacts of different drought management options on availability of water, such as the specification of amounts of water to be saved through

temporary restrictions on domestic water use, and non-essential use restrictions on commercial water use. This does not just render drought management more transparent, but also provides an opportunity to understand the effectiveness of different drought management options.

In the same vein, it would be very valuable to have statements in drought plans that specify mitigation measures that are taken to remedy adverse environmental and economic impacts of drought management options, and statements about their anticipated actual impact, based on experience from previous droughts.

Recommendation:

To add to the current wording of the draft EA Water Company Drought Plan Guideline (p. 22) 'to provide compensation for any negative effects that remain after you've tried to mitigate them, and to include indicators of success of previously used compensation measures'.

12. Public consultation for water company draft drought plans

Public involvement in the drafting of water company drought plans is important also in order to facilitate public acceptance of voluntary and imposed reductions on demand for water, and potential cuts in water supply during drought.

Water companies are asked by the draft EA Water Company Drought Plan Guideline (p.5) to provide a 'statement of responses' that shows how the water company has considered responses provided during a public consultation. Our research suggests that in practice it is often consultants who issue these statements.

Recommendation

to reword the current statement in the draft EA Water Company Drought Plan Guideline to read e.g.: 'for water companies, including their customer liaison team, to provide a 'statement of responses'.

This may integrate more closely 'customer' and 'citizen' perspectives during the preparation of drought plans, and thus to further integrate 'levels of service' and 'environmental impact' considerations in the writing of drought plans. Such integration is at the heart of sustainable development perspectives which seek to avoid trade-offs between economic and environmental gains.

Social science research on public engagement with science provides interesting examples of successful methodologies, such as competency groups, for enhancing the value of public consultation exercises.¹³ Such methodologies may explain the assumptions that inform the selection of drought control and trigger curves in drought plans.

Recommendation:

To include on p. 5 of the draft EA Water Company Drought Plan Guideline under the heading 'Carry out a public consultation on your draft drought plan' a statement that

¹³ See e.g. Sarah J. Whatmore and Catharina Landström, 'Flood apprentices: An Exercise in Making Things Public' (2011) *Economy and Society*, 40 (4), 582-610.

suggests:

‘ You may want to consider innovative methodologies for communicating scientific foundations of your drought plan to members of the public’.

To clarify the following sentence on p. 5 of the draft EA Water Company Drought Plan Guideline: ‘Your final drought plan should be as close as possible to your draft drought plan’, in order to enable early and thus effective involvement of statutory consultees and members of the public in the development of a drought plan.

C. Minor comments:

The draft EA Water Company Drought Plan Guideline refers at various stages to further documents relevant for drought planning. Electronic links to these in the text further promotes use of these. For example:

- on p. 17 ‘for more information on drought permits and orders, read the drought permits and orders guide’.
- On p. 22: ‘to carry out an HRA, use the UKWIR report Strategic Environmental Assessment and Habitats Regulations Assessment – Guidance for Water Resource Management Plans and Drought Plans’, a link to UKWIR’s website.

p. 23 refers to a number of organizations that can provide historical monitoring data. It may be worthwhile to add to this list River Trusts and the National River Flow and Groundwater Level Archives at the Centre for Ecology and Hydrology, Wallingford.

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