

Water company drought plan guideline

The Environment Agency has issued this guideline to water undertakers that are wholly or mainly in England. We have written it in collaboration with Defra.

What is this document about?

This document provides technical guidance for water companies and New Appointments and Variations (NAV) companies to follow when writing statutory water company drought plans. It also covers the requirements for water retailers.

Who is this document for?

Water companies, NAVs, water retailers, government and regulators.

Contact for queries and feedback

Environment Agency: Water-company-plan@environment-agency.gov.uk

Contents

Water company drought plan guideline	1
1: Introduction and overview	4
1.1 Background	4
1.2 Statutory requirements and government expectations	5
1.3 Water companies wholly or mainly in Wales or water companies wholly in England with sites in Wales	6
1.4 New Appointments and Variations	7
1.5. Water Supply & Sewerage Licensees	8
1.6. Links to other plans	9
1.7. What's new for this round	11
Section 2 Process of forming and maintaining your drought plan	13
2.1 Hold discussions	13
2.2 What to discuss	14
2.3 Send your draft drought plan	15
2.4 Publish and distribute your draft drought plan	15
2.5 Carry out a public consultation on your draft drought plan	16
2.6 Publish a statement of response	16
2.7 Send your statement of response and revised draft plan	17
2.8 Publish your final drought plan	17
2.9 When to produce a revised drought plan	18
2.10 Contact details	18
Section 3: Drought triggers	19
3.1 Understanding the drought vulnerability of your supply system	19
3.2 Decide on your drought triggers	20
3.3 Test your drought triggers through drought scenarios	22
4 Drought actions.....	24
4.1 Assign a drought level to your drought actions	24
4.2 Demand drought actions	26
4.3 Supply drought actions	31
4.4 Extreme drought plan management actions	37
Section 5: Say how you will communicate during a drought	41
5.1 Communications activities in each level of drought	41
5.2 How, when and what to communicate	42
5.3 How you will adapt your messages to different audiences	43

5.4 Arrangements for coordinated communications	43
5.5 Resources and research findings	44
5.6 Monitor and evaluate the effectiveness of your communications	45
Section 6: Environmental assessment, monitoring and mitigation	46
Section 7: Recovery from drought	48
Section 8: End of a Drought.....	49
8.1 Identifying the end of a drought	49
8.2 Reviewing your plan performance after a drought	49
8.3 Updating your drought plan and related plans	51
Section 9: What else you should include in your plan.....	52
9.1 Customer and stakeholder summary	52
9.2 Your drought management structure	53
9.3 Maps	54
9.4 Agreements and arrangements	54
9.5 Check your plan is consistent with other plans and can be published	55
9.6 Compensation arrangements for drought measures	56
Appendix A: Drought Plan Process	57
Appendix B: Worked examples – testing your drought plan against a range of drought scenarios.....	58
Appendix C: Extreme drought plan management actions	62
Appendix D: Advice on the structure and format of your plan	68

1: Introduction and overview

1.1 Background

Droughts can be devastating for water supply and the environment. Planning for and improving our resilience to droughts is an essential part of the government's objectives to deliver secure, reliable, sustainable and affordable supplies of water. This includes the need to value nature and connect people with the environment.

As a water undertaker you have a duty to prepare, publish and maintain a drought plan under Sections 39B and 39C of the Water Industry Act 1991, as amended by the Water Act 2003 and in accordance with the Drought Plan Regulations 2005 and the Drought Plan (England) Direction.

The drought plan guideline is supported by the following documents and technical supplementary guidance. These documents are available on request from the Environment Agency's mailbox: Water-Company-Plan@environment-agency.GOV.UK:

- Drought Plan (England) Direction
- Government expectations letter to water companies for the 2027 drought plans
- drought permits and drought orders
- environmental assessment for water company drought planning
- hydrological guidance for the assessment of exceptional shortage of rain (ESOR)
- position note on compensation-only reservoirs in dry weather
- checklist for water companies

Water companies may access these documents through the Environment Agency's external SharePoint site.

If you are a water company that is wholly or mainly in England, you should follow this guideline when preparing a drought plan. If you are a water company with sites within Wales or with drought management actions that affect Wales, please refer to section 1.3.

Your drought plan should show how you will provide a secure supply of water to your customers and protect the environment during dry weather and droughts. A drought plan is an operational plan that sets out what actions you will take before, during and after a drought. It also sets out how you will assess the effects, including the environmental impacts of your actions and what you will do to monitor and prevent or mitigate these effects. The drought plan will not provide details of actions you would take in a more severe drought (level 4) when you need to implement emergency restrictions such as standpipes and rota cuts. This information will be in your emergency plan for drought.

You will be expected to follow your published drought plan and implement your drought management actions if your plan is triggered during dry weather and drought. However, there may be circumstances when you have reason to deviate from your plan. For example, this could include when you can justify why:

- a drought management action is not relevant to your current situation or circumstances
- the drought management actions in the draft drought plan you are developing (post-consultation) are more appropriate than your current published drought plan

You should discuss your justification for following a different course of action to that shown in your drought plan with the Environment Agency and Natural Resources Wales if the action affects Wales.

Please refer to section 1.7 for what has changed in the guideline.

1.2 Statutory requirements and government expectations

You must comply with all the requirements set out in the legislation concerning drought plans including the Drought Plan (England) Direction. See separate note for the details on the Direction.

Where we have used the word “**must**” in this guideline we mean that the statement is a statutory requirement. If you do not follow a “**must**” there is a high risk of producing a plan that is not legally compliant.

Where we have used the word “should” in this guideline we believe you should follow the advice, so you produce an adequate plan. To avoid delays to the decision on publishing your plan you should include justification in any cases where you have not followed a “should.”

You **must** send your drought plan to the Secretary of State as set out in this guideline.

If your plan also affects sites in Wales, you **must** also send it to Welsh Ministers. See section 1.3.

The Direction states when all water company draft drought plans should be sent to Defra prior to consultation. You **must** submit your draft drought plan before the date stated in the Direction. You **must** then publish your draft drought plan as directed by Defra.

If you are appointed as a new water company or NAV, you **must** submit your first draft drought plan within 6 months of the date of your appointment.

You must publish a revised (final) drought plan at least every 5 years from the date the previous drought plan was published. But you should ensure you follow the timing set out in the Direction.

You **must** maintain your plan by reviewing it after dry weather events and revise your plan if there is material change in circumstances. See section 2.9 for more information on this. You should review your plan on an annual basis. You should report on your drought plan review in your annual drought health check report that you submit to the Environment Agency each year.

As well as the legislation, you should also ensure your drought plan shows how it will meet the government's expectations for the 2027 drought plans. See separate note for the government expectations.

1.3 Water companies wholly or mainly in Wales or water companies wholly in England with sites in Wales

Companies in Wales

If you are a water company that is based wholly or mainly in Wales, you must contact Natural Resources Wales. You will need to follow its guidance and the Welsh Government's guiding principles for its expectations (published separately) when developing your plan.

- Natural Resources Wales's technical guideline is available here: <https://naturalresources.wales/media/4hihubjr/water-company-drought-plan-technical-guidance.pdf>
- Welsh Government's guiding principles for developing water resources management plans. The updated principles will be available on the Welsh Government's website in 2024

If you are a company with sites in England or if you have drought management actions that affect England, you should also refer to the Environment Agency's supplementary guidance for 'Environmental assessment for water company drought planning.'

Companies in England

For companies wholly or mainly in England that have sites within Wales or drought management actions that affect Wales, you should also refer to Natural Resources Wales's guideline. This is particularly important when you are developing the content of your environmental assessments, environmental monitoring plans, Strategic Environmental Assessment (SEA) and Habitats Regulations Assessment (HRA) for these sites.

You must also consider your obligations in relation to:

- the Environment (Wales) Act 2016
- Well-being of Future Generations (Wales) Act 2015 for all sites within Wales

You should ensure you include Welsh Ministers and Natural Resources Wales into all email communications regarding the development and publication of your drought plan. See section 2.10 for all contact details.

1.4 New Appointments and Variations

New Appointments and Variations (NAVs) are made under the Water Industry Act 1991 (Sections 7 and 8) and enable Ofwat to replace the existing water supply and/or sewerage undertaker for another for a specific area.

NAVs have the same legal duties and responsibilities as other water companies to produce drought plans. If you are operating as a NAV, you must prepare, publish and maintain a drought plan that demonstrates that all the statutory requirements have been met. However, the level of detail you provide in your plan may be proportionate to your customer base and on how you obtain your water supplies.

You should discuss the requirements for your drought plan with the Environment Agency and/or Natural Resources Wales at an early stage in the process. You should report on your drought plan review in your annual drought health check that you submit to the Environment Agency each year.

If you operate under a bulk supply agreement with another water company, the incumbent water company (referred to as the supplier water company in this guideline) will have assessed the arrangements and planning associated with a drought management action, especially in respect of managing demand. Therefore, you should engage with your supplier company to inform the development of your plan and to ensure that the actions in your plan support your supplier company in protecting the environment and maintaining public water supplies. There are similar expectations for supplier companies to engage with NAVs as they develop their plans and to support alignment of plans and facilitate the timely implementation of complementary drought measures.

Following engagement with your supplier(s), you should set out in your plan the following:

- how your supplies will be maintained and whether any of the bulk supply (volumes, timing) would be modified in the event of a drought and actions you would take if this were the case
- your understanding of the suppliers' planned levels of service and whether you align with this
 - how you will take account of supplier/neighbouring water companies' data and information when preparing plans. See also section 9.4 agreements and arrangements
 - how you will reflect the triggers your supplier uses when you trigger and implement your own drought management actions
 - how you and your supplier will communicate and share information when preparing for and implementing actions
 - how you will ensure the alignment, implementation and lifting of your drought management actions and communications with your supplier where appropriate

- how you will share lessons identified with your supplier, including data and evidence to support a post drought review

1.5. Water Supply & Sewerage Licensees

Water Supply & Sewerage Licensees (WSSLs) are known as water retailers or in some circumstances, self-suppliers. They use the public water networks operated by water undertakers (wholesalers) whose areas are wholly or mainly in England and can provide water services to eligible non-household premises.

Further details are provided by OFWAT: <https://www.ofwat.gov.uk/regulated-companies/ofwat-industry-overview/licences/#wssl>

If you are a water retailer, you are not required to prepare or publish your own drought plan. However, you must comply with Standard Licence Conditions published by Defra on GOV.UK: <https://www.gov.uk/government/publications/water-supply-and-sewerage-licencing-regime-standard-licence-conditions/consolidated-version-of-water-supply-and-sewerage-licence-standard-conditions>

This requires you to:

- i) provide information to water undertakers
- ii) carry out reasonable instructions given to you during a drought by the relevant water undertakers as specified in their drought plan.

If you are a wholesaler, you should engage with your retailers and self-suppliers with eligible customers during the preparation of your drought plan and during a drought when taking actions that affect a water retailer's non household customers. See linked document below for further information.

In addition, you and the water retailers should consider the recommendations for engagement made by the Water Efficiency sub-group (part of the Retailer Wholesaler Group (RWG): "Guidance for retailer involvement in water resources planning" available here: <https://mosl.co.uk/document/groups-and-committees/retailer-wholesaler-group/rwg-water-efficiency-guidance/4676-wrmp24-guidance-for-retailer-involvement-in-water-resources-planning-oct-2021/file>.

The main recommendations are:

- wholesalers should consult water retailers and self-suppliers when developing their drought plans to ensure potential implications for retailers and business customers of the demand and supply actions are taken into account
- wholesalers should clearly communicate information on the current and near future resource position and its implications for retailers, self-suppliers and their customers

1.6. Links to other plans

You should consider other relevant plans when developing your drought plan. These are discussed in more detail in the following sections.

Table 1 shows how a water company’s water resources management plan (WRMP), drought plan and emergency plan for drought work together to support drought management. The management of a drought is shown by the Environment Agency drought status and the drought levels.

A more detailed table of the drought levels is shown in section 4.

Table 1: Relationship between different water company plans and drought status and drought levels

Environment Agency drought status and related drought action levels	WRMP	Drought plan		Emergency plan	
Normal (green)	Includes demand and supply drought actions but not extreme actions	Triggers actions	Implements actions		
Prolonged dry weather (yellow) – drought level 1 actions					
Drought (amber) - drought level 2 & 3a actions					
Severe drought (red) – drought level 3b extreme actions				Triggers actions	Implements actions
Emergency drought actions – drought level 4 actions					

Drought response framework for England

When developing your drought plan you should consider the information in the Environment Agency’s document ‘Drought response: our framework for England’. This document will be reviewed by the Environment Agency in 2024/25 and will be available on GOV.UK : <https://www.gov.uk/government/publications/drought-management-for-england>

The framework explains the Environment Agency’s role and that of others in managing the effects of droughts on people, businesses and the environment. It highlights the importance of communications during a drought, including joint communications. See section 5 for our expectations on communications.

Water resources management plan (WRMP)

Your drought plan should have close links with your WRMP. As part of your WRMP, you should:

- have assessed your vulnerability to droughts of various return periods, types and severities
- shown what demand and supply options you will use to secure supplies under these scenarios
- set out how you have appraised and justified those options and selected those that are the best economically, socially and environmentally

Your planned levels of service in your WRMP should align with the level of service you present in your drought plan.

If you are a NAV, you will have completed less assessment of the economic, environmental and social costs as part of your WRMP than your supplier water companies. However, you should explain the options that you plan to implement during a drought in both plans.

Emergency plan for drought

A water company's emergency plan for drought is not part of its drought plan. It covers droughts which are beyond the levels of service a company plans for in its WRMP. Emergency plans are not in the public domain, but water companies must meet the measures set out in the Security and Emergency Measures Direction (water and sewerage undertakers and water supply licensees) Direction 2022. This is part of the Water Industry Act 1991(section 208):

<https://assets.publishing.service.gov.uk/media/621deedcd3bf7f4f02760865/water-security-emergency-measures-direction-feb2022.pdf>

Your emergency plan for drought will include full details of the emergency actions (including emergency drought orders) you plan to use. Some of these actions will require early planning and preparation during the time you are following your drought plan. You should explain to your customers what an emergency plan for drought covers and how it fits with your drought plan.

The Environment Agency is working with fellow regulators to develop new guidance to cover emergency drought plans. This work will take place during late 2024 and into 2025.

Regional water resources plans

Regional water resources groups are alliances made up of water companies, key water users and other stakeholders. These groups produce strategic plans to cover the future water resources needs for their region. These plans cross water company boundaries and address the future needs for public water supply and other sectors, such as farming and industry. The plans are developed to identify coordinated and best value solutions to secure future water supplies and environmental resilience at a regional, and together, at a national level.

Regional water resources groups are not currently expected to develop drought plans but they are ideally placed to support collaboration across all sectors during a drought to help improve drought management and response.

Examples of this coordination include:

- coordinating communications for the public and media to encourage efficient use of water
- supporting other sectors in their resilience to drought

Regional water resources groups are being asked to develop a 'statement of intent', clearly setting out the role they will take in drought. Our expectations on what regional groups could include in this statement will be shared alongside the updated National Framework for Water Resources in 2025.

As a water company, you should ensure your drought plan aligns with the statement of intent written by your regional water resources group. You should consider the benefits of this collaboration to your customers, the environment and other sectors in your region. If a regional water resources group's statement of intent includes dry weather or drought actions that affect your supply area, you should ensure these are included in your drought plan. Your drought plan should include, where appropriate, regional alignment on:

- how you will share water resources with neighbouring water undertakers
- how you will operate sources to benefit other water users during dry weather or a drought while minimising the risk to your supplies
- any joint communications, including customer restrictions such as temporary use bans (including alignment of NAV, water retailers and supplier water company communications)

1.7. What's new for this round

The main changes to the water company drought plan guideline since it was last published in 2020 are as follows:

- reflected lessons identified in respect of public water supply from recent dry weather/drought experience
- accounted for any legislative, regulatory or policy changes especially in respect to environmental requirements
- aligned where relevant with the Natural Resources Wales's equivalent guidance
- taken account of feedback on the guidance from government, regulators, the water companies and other relevant groups
- improved the presentation and clarity of the information in the guideline
- accounted for any changes to UK Water Industry Research (UKWIR) updated report 'Managing through drought: code of practice and guidance on water use restrictions – 2023'
- included expected ways of working between water companies, NAVs and water retailers

- included more details on a water company's emergency plan for drought and how these plans relate to a company's drought plan
- added references to the new annual drought plan health check
- updated the drought levels table in section 4 on drought actions
- added new section 4.2.2 on the further demand actions water companies can take to significantly reduce residential demand
- updated section 4.4 on extreme drought management actions and included new text on alternative pathways
- added a new section 7 to cover our requirements on recovery from drought
- provided more information on what to include in the non-technical summary of the drought in section 9.1

DRAFT

Section 2 Process of forming and maintaining your drought plan

This section explains the steps you need to follow to prepare, publish and maintain your water company drought plan. It covers early engagement with regulators and customers, through to when you need to review your published plan. See [Appendix A](#) for a list describing the high-level process.

2.1 Hold discussions

You **must** hold pre-consultation discussions with statutory consultees and any others as directed by government.

You should also hold pre-consultation discussions with relevant local stakeholders.

You should use the feedback from these discussions when developing your new drought plan.

You should start these discussions as early as possible – you will need more time if you are planning large-scale changes. By starting these discussions early, you may reduce the need for changes later in the process.

When preparing your draft plan, you **must** consult with the following bodies:

- the Secretary of State for the Environment, Food and Rural Affairs
- the Environment Agency if the plan affects water resources in England
- Natural Resources Wales and the Welsh Government and Minister if the plan affects water resources in Wales
- Ofwat
- any water supply and sewerage licensee (water retailer) that supplies water to premises in your area through your supply system, see section 1.5 for more information on water retailers and self-suppliers.
- you **must** also consult with Natural England and Natural Resources Wales (as relevant) if any of the actions in your plan are likely to affect a designated conservation site or protected species. If you have a strategic environmental assessment that affects sites in Wales, you should also consult with Cadw: <https://cadw.gov.wales/>

For further information on relevant regulators/groups to consult on your environmental assessments see relevant guidance:

- the Environment Agency's supplementary guidance 'Environmental assessment for water company drought planning'
- Natural Resources Wales's guidance 'Water company drought plan technical guidance' (see section 1.3)

You should consider also carrying out discussions with other consultees, for example:

- any water supplier affected by your supply system
- any water companies you have bulk supply or shared resource agreements with, such as NAVs
- independent challenge groups – see Consumer Council for Water’s review of “Independent Challenge Groups in the Water Sector,” March 2023: <https://www.ccw.org.uk/publication/review-of-independent-challenge-groups/>
- any other groups or organisations that your drought plan is likely to affect (for example, power plant operators, the Canal & River Trust, large industrial users, angling trusts, farmers and local authorities)
- Consumer Council for Water
- relevant Public Services Boards (if affects parts of Wales)
- relevant regional water resources groups
- other neighbouring water companies and water companies within your regional water resources group
- your relevant Local Resilience Forum

2.2 What to discuss

You should discuss (this is not an exhaustive list):

- what you want to include in your new plan and what changes you are making following lessons you have learned from recent experiences of drought
- what changes you are making to your drought plan which are driven by your strategic WRMP
- previous recommendations from statutory consultees such as those from the Environment Agency, Natural Resources Wales and Natural England
- how you will comply with the Drought Plan (England) Direction
- any advice you have had from the government and the government expectations
- the data and evidence you would share with the Environment Agency and Natural Resources Wales (if relevant) in an operational drought
- the views of customers, statutory consultees and other interested parties
- the emerging ‘statements of intent’ from regional water resources groups on their role in drought, and the changes you are making to your plan for this
- the requirements to be drought permit and drought order application ready including your planned exceptional shortage of rain case and environmental assessments for drought permit and order sites

- your assessment of your drought risk to different types of drought events
- the work you are doing to prioritise your extreme drought management actions and assess their viability for inclusion in your plan
- your requirements for environmental assessment reports, Strategic Environmental Assessments, and Habitats Regulations assessments
- environmental drought triggers and actions including any changes to monitoring
- your planned joint communications with others such as NAVs, water retailers and regional water resources groups

2.3 Send your draft drought plan

You **must** send your draft drought plan to the Secretary of State and, if appropriate, Welsh Ministers including Natural Resources Wales before you publish it for consultation. The contact details are in section 2.10.

If your company area is wholly or mainly in:

- England – you must send your draft plan, statement of response to your consultation and final plan to the Secretary of State. If your plan also affects sites in Wales, you must also send it to the Welsh Ministers
- Wales – you must send your draft and final plan to the Welsh Ministers. If your plan also affects sites in England, you must also send it to the Secretary of State. You must ensure your submitted plan and statement of response complies with the requirements of the Welsh Language (Wales) Measure 2011

When you submit your draft plan to the Secretary of State or Welsh Ministers for agreement to publish it for consultation, you must submit a statement from your security manager. This must certify that the plan has been reviewed and that it does not contain any information that would compromise national security interests. You must highlight the information you propose to redact or edit out in the published version. The Secretary of State or Welsh Ministers may confirm whether the information can be removed on grounds of national security.

In this statement you must also identify any information you would like to redact that may be commercially confidential.

2.4 Publish and distribute your draft drought plan

The Secretary of State will tell you when to publish your draft drought plan for consultation. You **must** make it available on your company website and provide a paper copy if requested by a stakeholder or customer.

You **must** publish a statement with the draft plan on your website that:

- specifies whether you have left out any commercially confidential information

- describes the process for providing comments (also known as representations) on the draft plan to the Secretary of State
- states when any consultation comments must be received by and where they should be sent

You **must** send a link to your draft plan on your website to your statutory consultees and all other organisations involved in the preliminary discussions.

You should send a link to your draft plan on your website to:

- anyone you have consulted and the bodies listed in the legislation including the Drought Plan Regulations 2005
- any other organisations and individuals that you know are interested in water resources and drought planning, for example based on responses to past consultations on your WRMP and drought plan

2.5 Carry out a public consultation on your draft drought plan

You **must** publish your draft drought plan for consultation. You **must** also produce a statement of response within the time frame set out in the drought plan direction.

You will need to decide how long your consultation will be open to receive comments and how long you will take to respond to them. We recommend splitting this period to allow half the time for public consultation and half the time for you to produce your statement of response and revised draft plan.

You **must** state within your consultation that all consultation responses should be sent to the Secretary of State, using the contact details in section 2.10. The Secretary of State will forward copies of any comments received to you for review and to the Environment Agency for awareness.

2.6 Publish a statement of response

You **must** publish a statement of response after completing the public consultation within the time frame set out in the drought plan direction. You should publish a revised draft drought plan alongside your statement of response so that consultees can clearly see how their comments on your plan have been included.

Your statement of response **must** make it clear how you have responded to the individual representations made. It should:

- show how you have considered the comments you have received
- clearly set out any changes you have made to the draft drought plan and your reasons for making them
- say if you haven't made changes because of comments and explain why that is

You must publish the statement of response on your website and tell anyone who has made comments that you have published it.

2.7 Send your statement of response and revised draft plan

You **must** send your statement of response to the Secretary of State and, if relevant, Welsh Ministers along with your revised draft drought plan if you have prepared one. See the contact details in section 2.10. You should also send any other information that Defra has requested or that you have been advised to send by the Environment Agency.

You **must** notify the Secretary of State of any further information that may be commercially confidential, or which has been, or you consider should be removed for reasons of national security.

The Secretary of State will send your statement of response and revised draft plan to the Environment Agency for review.

The Secretary of State will review your revised draft plan, the representations made and statement of response, along with technical advice from the regulators (including Welsh Ministers where appropriate) and decide whether your plan can be published. You may be asked to complete further work before publishing your drought plan. If so, the Secretary of State will inform you what is required.

A public hearing, inquiry or an examination in public may be required if there are unresolved issues with your plan or issues of significant public interest. The Secretary of State will decide if this step is needed and will inform you. The Secretary of State will consult with Welsh Ministers if these issues affect Wales.

2.8 Publish your final drought plan

You cannot publish your final drought plan until you have received permission from the Secretary of State.

Before you publish your final plan, you **must**:

- comply with any directions from the Secretary of State
- give yourself enough time to make final checks - this will depend on what kind of changes you need to make and whether you have received any directions

You **must** share copies of the final drought plan with your statutory consultees and all other organisations who were involved in the preliminary discussions. You must make your final drought plan available and easily found on your company website and make it known that you will provide a paper copy if a stakeholder or customer requests it.

You should also ensure you inform the Secretary of State and, if relevant, Welsh Ministers and Natural Resources Wales when you have published your final plan.

You should share a link to your final drought plan on your website to anyone you have consulted or who has responded to your consultation. You should also share the link to any other organisations and individuals that you know to be interested in water resources and drought planning, for example based on responses to past consultations on your WRMP and drought plan.

2.9 When to produce a revised drought plan

You **must** revise, resubmit and re-consult on your drought plan every five years, or if:

- there has been a material change in your circumstances (it is for the water company to decide if there has been a material change)
- you have been directed to do so by the Secretary of State for the Environment, Food and Rural Affairs

You should review your drought plan performance after a drought. See section 8.2 for more information on this.

If you identify the need for changes to your drought plan which are material, you must inform Defra and reconsult on your plan. If you have not identified any material changes, you can publish either an update to your current drought plan or an addendum of the changes you are making to your drought plan on your website. The details in the addendum should be incorporated into your main drought plan document the next time you consult on it.

You should inform Defra, the Environment Agency and, where relevant, Ofwat, Natural Resources Wales and Natural England when you have published an update or an addendum to your drought plan on your website.

Your current drought plan will remain valid until a new final drought plan has been published. However, if your unpublished draft drought plan will improve the way you manage a drought or its impacts, you should discuss how to use it with the Environment Agency and, where relevant, Natural Resources Wales.

2.10 Contact details

You should use the following mailboxes if you are a water company based in England. You should email the Secretary of State by emailing Defra at: Water.resources@defra.gov.uk

You should also copy in the following regulators to your emails:

- **Environment Agency:** Water-Company-Plan@environment-agency.GOV.UK
- **Natural England:** enquiries@naturalengland.org.uk

If you are a water company with sites in Wales, you should also copy in Welsh Ministers and Natural Resources Wales to your emails to the Secretary of State:

- **Welsh Government:** water@gov.wales
- **Natural Resources Wales:** wrepp@cyfoethnaturiolcymru.gov.uk

You can contact regulators through these mailboxes if you are unsure about any aspect of the drought planning process and need further advice.

Section 3: Drought triggers

Your drought plan should include drought triggers that identify when you plan to prepare for and implement your drought management actions. You should also include triggers in your plan to cover the actions you will take during recovery from drought (see section 7). This section sets out how you should develop your drought triggers with the support of supply vulnerability assessments, and how you should test your triggers.

You should also consider the need to include triggers to prepare for implementing your emergency plan for drought. This may also include developing triggers for:

- emergency drought plan actions with long lead in times
- people and groups you might need to communicate the triggering of your emergency plan for drought

The next section covers drought levels and drought actions in more detail.

3.1 Understanding the drought vulnerability of your supply system

Your water resources management plan (WRMP) should set out your planned levels of service. These levels of service are the planned frequency that you expect to impose:

- temporary water use restrictions or other restrictions on your household customers
- restrictions on non-household customers
- the severity and duration of drought that you expect to be able to manage without having to resort to measures such as emergency drought orders to restrict supplies to customers

Your WRMP levels of service should be the same as those set out in your drought plan.

In your WRMP you will already have assessed your vulnerability to droughts of a particular severity or magnitude. In your drought plan, you should provide a summary of how you assessed your vulnerability to droughts and describe the key conclusions. You should highlight any types of drought that your system is particularly vulnerable to and how you plan to manage this risk. You should briefly explain the method you have used to understand the drought risk, such as UKWIR 'Drought vulnerability framework' (17/WR/02/12) or an alternative method appropriate to your supply system.

If you are a water company or NAV with bulk supply agreements, you must work with your supplier to understand if there is any risk to your supply during a drought and include this information in your plan. For example, whether your bulk supply is likely to be affected by different severities of droughts.

We recommend you engage early with the Environment Agency and/or Natural Resources Wales to discuss your assessment of drought risk and at what scale this has been undertaken within your operating area.

3.2 Decide on your drought triggers

Your drought plan should contain drought triggers to identify when you need to prepare for and take action during a drought, from its onset to its end. During a drought you should follow and act on your chosen drought triggers unless you can justify a different action.

In your drought plan, all companies should:

- include your chosen triggers for all drought levels, including the start, end and recovery from a drought
- explain why you have chosen your drought triggers

Where you have identified multiple sources with triggers, you should state how these interact and the primary source (or combined sources) for triggering your drought management actions.

You can use the following parameters as drought triggers, on their own or in combination with each other (this is not an exhaustive list):

- rainfall totals
- reservoir stocks
- river flows
- groundwater levels
- drought driven issues with nearby water resources zones
- customer demand for water, particularly in combination with hot dry weather
- environmental stress, these triggers may be linked to low flow or groundwater levels where the environment is stressed but your supply system is not
- any other appropriate measures such as other sectors, neighbouring water companies or members of your regional water resources group that are under drought stress
- for NAVs, whether the supplier water companies are communicating triggers for advertising and implementing drought measures

In developing your drought triggers, you should allow enough time to both prepare for and carry out the action(s) associated with each trigger. For example, you need to allow appropriate lead-in time when applying for a drought permit or drought order. You should refer to the Environment Agency's supplementary guidance on 'Drought permits and drought orders' for more detail on the estimated application timescales.

You should also consider the time taken to realise the benefit from your action, there may be some time from implementing a drought management action to seeing a reduction in demand or getting the water into supply

Triggers can be used for decision making points from first considering and preparing an action, through deciding to implement or cease an action and to recovery from drought. You should identify if a trigger is for preparation, implementation or cessation. For example, you could include triggers for:

- preparing temporary use bans (TUBs), such as preparing advertisements, readying call centre staff
- advertising TUBs including the time needed for representations
- implementing a TUB and removing a TUB

Drought triggers can be developed at different geographical scales, for example, at company, water resource zone, regional or for drought management areas. However, if you are planning to use a level smaller than a water resource zone then this needs to be explained. Your drought triggers should be geographically relevant to the associated drought action(s). Your plan should also include maps showing the geographical area in which the different triggers apply.

If you are a NAV with potentially small, appointed areas, you should explain how you will manage your sites either alone or in combination with a supplier water company's operating area.

Environmental triggers

The environment may show signs of stress during dry weather, such as an increase in environmental incidents like fish in distress, before your water supplies are affected.

Your plan should show how you have thought ahead to identify if and where you can help to minimise the possible environmental effects of dry weather. For example, you may plan to adjust your operations to alleviate environmental stress on sites you know are sensitive to dry weather, whilst minimising the risk to your supplies.

You should consider developing environmental triggers especially for nationally and locally sensitive sites or those sites known to have low resilience to dry weather such as chalk and greensand rivers.

You could develop environmental triggers from your current monitoring or from available reporting (such as the Environment Agency's water situation reports) on surface water flows, groundwater levels or number of reported environmental incidents. You could work with your regional water resources group, other sectors and local environmental groups to develop environmental triggers and actions.

You should consider how your environmental triggers will work alongside your other triggers. For example, they may help you act earlier to implement your drought plan and actions.

Control diagrams

Control diagrams display the operational drought level a company is at based on how much water is available. Your drought plan should include control diagrams that show your chosen triggers and the actions you will take. Control diagrams can be control curves on a reservoir linked to storage, river flows or groundwater levels or other parameters. An example of a control diagram has been included in [Appendix B](#).

3.3 Test your drought triggers through drought scenarios

You **must** provide worked examples in an appendix to your drought plan to show how you have tested your chosen triggers and that they are appropriate to a range of droughts. This should include as a minimum testing your plan against the same severity of drought used in your baseline planning assumptions for your WRMP (for the time period covering your drought plan this may be 1:200 or 1:500). If your WRMP baseline is 1:200 you should also consider testing your drought plan against a plausible more severe drought (1:500).

Your worked examples could also include droughts of different magnitude and duration such as:

- a short duration, high intensity drought, like 2018 and 2022
- a multi season drought
- additional impacts such as combined issues of high demand, heat wave impacts, water quality impacts (such as algal bloom preventing abstraction) and outage at your strategic assets during dry weather or a drought

You should explain what relevant data and methods you have used to derive the conditions for each of your scenario tests. Your plan should:

- provide details of the scenarios used including the magnitude and duration of each scenario
- justify why you chose these scenarios, explaining why they were appropriate for a particular area
- show how you have considered any actions taken by others – such as Environment Agency environmental drought orders (these will be detailed in local Environment Agency drought plans) that may affect your triggers and may change the actions you take

You should revise your drought scenario tests every time you review your drought plan to make sure they are the most up-to date.

Your worked examples can help you better manage the timeline of actions to maintain your supply. Using your worked example of a given drought scenario, you can work backwards from a point where you need to take action, to reduce demand or maintain supplies and identify trigger point(s) where you would need to start taking those actions.

For NAV companies, a control diagram (referenced in section 3.2) can be a hypothetical timeline to demonstrate the phasing of drought measures and how this will vary based on the supplier water companies' level of service. This should set out the triggers the NAV has and resultant actions.

You should regularly carry out drought exercises in non-drought years to test your planned triggers and actions.

Please refer to [Appendix B](#) for further information on worked examples.

DRAFT

4 Drought actions

You **must** clearly and concisely set out what actions you plan to take during a drought. You should present your actions in your plan so others can easily understand what actions you will take during a drought. This section provides examples and more information on the demand and supply actions you could include in your plan and on how to present this to your customers.

When developing your plan, you must show how the sequencing of your drought actions has been designed to limit impacts on customers and the environment. You should plan to implement your demand saving actions first at each level of drought. You should then prioritise the use of those supply actions where your evidence gives you high confidence they are the least damaging to the environment. This means we expect you to take actions to reduce customer demand, leakage and outage before applying to increase supply by taking more water from the environment using drought permits and orders, where these actions are available to you.

The level of service for your drought management actions should be aligned to the level of service in your water resources management plan (WRMP). Levels of service are based on implementation of your demand actions. If you are a NAV, you will need to respond to multiple different levels of service for your supplier water companies. Therefore, you should ensure you align your drought plan to the customer levels of service set out in your supplier WRMPs.

4.1 Assign a drought level to your drought actions

You should show in your plan what demand or supply actions you will take to manage a drought at each drought level.

If you have sites in Wales, you should also refer to the terminology to describe the stages of drought used by Natural Resources Wales in its technical guideline. You should consult with Natural Resources Wales and the Wales Drought Liaison Group for any actions you plan to implement for sites that affect Wales.

You should assign each of your demand and supply drought actions to a drought level as described below:

- **drought level 1 actions are implemented during prolonged dry weather** – an example demand action includes communication campaigns encouraging more efficient water use and an example supply action includes optimising sources and reducing outage
- **drought level 2 and 3a actions are implemented during drought** – example demand actions include temporary use bans and non-essential use drought orders and example supply actions include drought permits with minor environmental impacts and those with moderate environmental impacts
- **drought level 3b actions are implemented during a severe drought** – these are extreme demand and supply drought management actions. See section 4.4 for more information on these actions

You should present a summary of the demand and supply actions you plan to implement at each drought level. Table 2 shows an example format of how you could present a summary of this information in your drought plan. The rows included for business as usual and your emergency drought plan actions are included for illustration purposes only.

Any actions you implement at a given drought level, should continue on through the later drought levels. For example, your actions on enhanced leakage control would not stop on reaching drought level 2.

The information you provide for each action should be specific, for example, by showing the individual permits or groups of permits that will be required at a water resource zone.

If you have identified any actions you could take to mitigate environmental stress or support other sectors such as farmers in a drought, these could also be added to your summary table.

Table 2: Examples of demand and supply actions for each Environment Agency drought status and drought level

Drought status	Drought level	Demand actions	Supply actions
Normal (green)	Business as usual	Routine demand management actions	No additional actions – use of existing sources
Prolonged dry weather (yellow)	1	Voluntary reductions, communication campaigns, increased leakage control	Actions with minor environmental impact, optimising existing sources including transfers, reducing outage
Drought (amber)	2	Temporary use bans (TUBs), voluntary residential water use reductions	Optimising current licensed resources and networks, drought permits and orders with minor environmental impacts
	3a	Further voluntary residential water use reductions, removal of exceptions for TUBS, non-essential use ordinary drought orders	Drought permits and orders with moderate environmental impact
Severe drought (red)	3b	Extreme actions to delay emergency drought orders	Extreme actions including drought permits and ordinary drought orders with major environmental impact

Emergency drought	4	Emergency drought orders such as rota cuts and standpipes	Use of emergency reservoir storage
-------------------	---	---	------------------------------------

4.2 Demand drought actions

Your drought plan **must** set out what you will do to reduce the demand for water from the onset and during a drought.

You should implement your demand actions in a timely manner. You should have them in place early enough and long enough to have a measurable impact on reducing your customer demand before you make any drought permit or drought order application. This could help delay or reduce the need for drought permit or order applications. You should outline in your plan what measures you will use to track and measure the effectiveness of your actions to reduce demand.

You will need to include details of the demand actions you have used and the demand savings made in any drought permit or order applications. For further details see section 4.3.1 on drought permits and orders.

You should demonstrate, through your worked examples, that your demand actions are appropriate to a range of droughts. See [Appendix B](#) for more information. You should also demonstrate how they fit in with your communication plan, see section 5 for more details.

During a drought, if you decide to delay or bring forward any of your demand actions, that is different to your drought plan, you should explain why you think this is the best course of action to the Environment Agency, Natural Resources Wales (for sites in Wales) and other relevant groups such as the National Drought Group and, if relevant, the Wales Drought Liaison Group.

Examples of demand actions

Your demand actions could include:

- increasing leakage control and supply pipe repairs
- encouraging all customers (including working with water retailers and businesses) to use less water
- carrying out additional initiatives to improve household water efficiency such as targeted communications about water use and behaviour or providing information to customers about how to reduce plumbing losses
- carrying out additional initiatives with water retailers to improve non household water efficiency
- reducing mains pressure (note water companies have a statutory minimum for mains pressure)
- increasing the efficiency of your operations (optimising your operations)

- temporarily restricting water use, for example through temporary use bans
- temporarily restricting non-essential uses of water using an ordinary drought order (non-essential use ordinary drought orders)

Information on demand actions

You should include the following information for each of your actions to reduce demand:

- a description of the action
- the implementation timetable (time for preparation, implementation, the estimated time delay between implementation and beneficial demand reduction and duration expected to be in place)
- the trigger for the action, the drought level that you will plan and prepare for the action and the drought level at which you will implement the action (if different)
- estimated demand savings, how derived (where possible quantified as Ml/day, or m³/day if more appropriate for NAVs) and/or percentage reduction in peak demand) and how you will measure and monitor the effectiveness of the demand action
- the location – the area affected, for example at a company, zonal or regional level
- how you will engage with relevant NAVs and/or water retailers operating within the location regarding implementing the action in a coordinated way
- your assumptions and justification for the period or time of year during which the action would be most effective
- the permissions you will need or constraints that apply (include details of any contact you will have with bodies responsible for giving permits or approvals)
- an assessment of the risks associated with this action, for instance, social and economic factors and uncertainties associated with timings, water quality and water savings

You should consider the most effective way to reduce water demand and whether it is best to carry out your actions across your regional water resources group, your company as a whole or over a smaller geographical area. This may vary depending on the approach you are taking on leakage control or temporary use bans.

4.2.1 Temporary use restrictions on water use

Your plan must explain how you will temporarily restrict water use during a drought using a temporary use ban (TUB) or a non-essential use ordinary drought order. You should also ensure you clearly explain the benefits and purpose of your temporary use restrictions in your drought plan to improve customer understanding.

Water companies are not financially penalised by Ofwat if they implement temporary use restrictions (such as TUBs) during a drought. You should clarify this in your

drought plan for your customers and also describe any performance commitments you have chosen related to your use of temporary use restrictions.

You **must** set out in your plan the permits and approvals you will need for these restrictions and follow the relevant water use restriction legislation:

- The Water Use (Temporary Bans) Order 2010 (legislation.gov.uk): <https://www.legislation.gov.uk/ukxi/2010/2231/made>
- The Drought Direction 2011: <https://www.gov.uk/government/publications/the-drought-direction-2011>

You **must** also set out the compensation arrangements, if any, that may occur if you implement any temporary restrictions.

You should explain in your plan:

- the temporary restrictions you plan to use and the order in which you will implement these actions
- how you will comply with legislation on temporary use bans
- the geographic areas (such as water resource zone, company-wide or other geographical area) where these will be carried out and what water use activities will be affected by these restrictions. NAVs, in particular, will need to explain how targeted communications will occur relevant to the areas served
- potential exceptions and concessions to the restrictions, see the updated code of practice in the reference section below
- how you will balance the need for water savings against adverse effects on customers and businesses
- how much time you will set aside for comment during the representation period before using a restriction and how you will deal with an unexpectedly large response. You should build in flexibility to the length of your representation period to take into account different types of drought and your specific situation
- how you will tell customers, neighbouring companies, NAVs, water retailers for business and interest groups about the introduction and lifting of temporary restrictions. You should describe how you will keep this information up to date and provide examples of the type of notice that would be issued
- how you will decide when to lift the temporary restriction
- how you will prove to customers, partners and the government that you have acted in a proportionate and reasonable way
- how you will work with neighbouring companies, NAVs, water retailers and regional water resources groups to align your approach on restrictions (such as timing, exceptions, communications materials or method). This will ensure customers do not get confused when they are introduced

- if you are not able to align your approach to TUBs or non-essential use restrictions with neighbouring water companies, you should explain why this is to your customers in your drought plan

You should take into account your own experience of temporary water use restrictions and that of others and the wider water industry (such as in the drought in 2022) when making a decision on how to prepare for, communicate and implement temporary water use restrictions and how you will manage this process.

You should consult the following UK Water Industry Research (UKWIR) reports:

- 'Managing through drought: code of practice and guidance on water use restrictions - 2023': https://ukwir.org/eng/water-industry-technical-report?object=edc34de6-1f52-4ec6-88d4-48187bce7376&Email_Campaign_Mail=2771798
- 'Review of 2022 Drought Demand Management Measures – summary report': https://ukwir.org/eng/water-industry-technical-report?object=035eacc9-4aa5-4e26-a014-12914822e94c&Email_Campaign_Mail=2587381

Implementing temporary use bans (TUBS)

TUBs are used to reduce customer demand and are particularly effective in summer when customers are using more water outside. You should ensure that TUBs are in place prior to any drought permit or order application in the summer months (between April and October) and in place long enough to have a measurable impact on reducing your customer demand. However, water companies are able to legally implement TUBs at any time of the year as well as outside of a drought event. You should set out in your plan if you plan to use TUBs when you are experiencing or you consider you are likely to experience a serious shortage of water for distribution.

You should determine over what length of time you would expect to be able to see and measure an impact on your water into supply (e.g. distribution input) attributable to the TUB.

You will need to include details of the demand actions you have used and the demand savings made in any drought permit or order applications. For further details see section 4.3.1. on drought permits and orders.

During a drought, you should refer to the information below on when TUBs should be used as well as the Environment Agency's supplementary guidance on 'Drought permits and drought orders' for more details.

If you have sites in Wales, please refer to Natural Resources Wales technical guideline for more information on expectations for implementing TUBs in Wales.

April to October

You should ensure in your drought plan that:

- TUBs are in place before you apply for any drought permits or orders for supply between 1 April and 1 October (although this indicative period may be extended to be earlier or later if necessary, for example due to changed weather patterns or high demand)
- TUBs are in place long enough to have a measurable impact on reducing your customer demand before you make any drought permit or drought order application

October to March

If you plan to apply for a drought permit between 1 October and 31 March, you should consider the need to reduce demand by implementing TUBs over the preceding summer period to reduce the likelihood of autumn and winter drought permit and order applications.

Between October and March, you should plan to have TUBs in place before applying for a drought permit or order unless:

- you can demonstrate that a TUB implemented earlier in the summer is unlikely to result in larger demand savings than a TUB implemented in autumn or winter
- you can justify that the likely demand savings from implementing TUBs in autumn or winter are minimal
- you assess there is no proven or expected environmental impact from your drought permit or order, when mitigation is accounted for

You should also assess the use of the full range of the powers available to you under a TUB as some may still be effective during autumn and winter.

When implementing non-essential use restrictions

A non-essential use ordinary drought order will apply water restrictions to business customers. They cover a number of activities such as car washing, watering of sports pitches or cleaning windows. Water companies should have already worked with their non-domestic customers and water retailers in advance of this point to ask for voluntary reductions and to share water efficiency messaging.

You should ensure that a drought order to implement non-essential use restrictions on business customers is in place before making any further drought permit or order applications that may be more environmentally damaging. This includes drought permits and orders with the potential to have major environmental impact (see table 2).

You should consult the UK Water Industry Research (UKWIR) report 'Managing through drought: code of practice and guidance on water use restrictions - 2023' as referenced above.

4.2.2 Further demand actions to significantly reduce residential customer water use

Droughts can occur across more than one season or years and can be quick onset or slow onset. Water companies should consider what further actions they can take to reduce residential water use at any time of year, including implementing temporary use restrictions.

You should look at what further innovative demand actions you can implement to help your residential customers to significantly reduce their domestic water use when other actions, such as temporary use restrictions, are not achieving the desired reduction. These further demand actions should reduce the likelihood for additional supply actions and emergency measures such as standpipes and rota cuts.

For example, you could provide residential customers with instructions on how they could significantly reduce their water use by a given percentage by demonstrating how much water should be used daily by activity. Customers would not need to have a smart meter in order to follow your instructions. As with all demand actions, you will need to ensure that vulnerable customers and their additional needs are considered.

When including further demand actions in your plan, you should:

- identify from what drought level you would implement the further demand actions
- consider if there is any impact on your drought levels of service
- ensure you could implement actions at any time of the year
- consider how these actions could be both fast tracked and scaled up as a drought worsens
- identify ways to monitor any changes in residential demand that result from these further demand actions in order to understand their effectiveness across all residential groups and explain how you will share this with your customers

4.3 Supply drought actions

Your drought plan **must** set out what you will do to maintain water supply during a drought.

You **must** prioritise implementing your supply actions that have the least environmental impact (and for which you have high confidence in and evidence to support that assessment) and maintain compliance with your abstraction licence conditions.

You should categorise your supply actions using the environmental impact categories (minor, moderate, major, uncertain) and associated confidence levels (low, medium, high) in applying this approach. See the Environment Agency's supplementary guidance for 'Environmental assessment for water company drought planning' and, where relevant, Natural Resource's Wales technical guideline for sites which affect Wales.

Combined with this, you should also consider prioritising the sequencing of your drought permits and orders on the basis of the benefit they provide to your customers.

Examples of supply actions

You could include (in no particular order):

- carrying out engineering work, such as optimising water treatment works or the distribution system
- rescheduling planned works to reduce outage or bring forward planned asset improvement works
- reviewing and implementing options to optimise current sources and network
- transferring water in bulk from other water companies or between your water resource zones (include how these transfers link in with your regional water resources plans/groups)
- lowering pumps or deepening boreholes (licences that have a depth condition on them would require a drought permit or drought order)
- reducing raw water losses
- tankering by lorries
- using drought permits and drought orders to increase supply

To demonstrate that your actions are appropriate you should:

- estimate how much each of your actions will contribute to maintaining water supply and say how you arrived at this figure
- make sure your actions align with the drought plans of other water companies they affect and, where appropriate, your regional water resources groups and Natural Resources Wales. You should also consider the actions included in Environment Agency area drought plans that may include drought orders and operating agreements that may affect you
- set out the limits to the amount of water you can transfer from and to other companies (including NAVs) and whether this will change under different levels of a drought. See section 9.4 on agreements and arrangements
- carry out the required environmental assessments, and where possible you should carry out as much of this work at the planning stage so that you are application ready in a drought (see section 6 on environmental assessments). You should include a high-level summary of your environmental assessments in your main drought plan or in an appendix for each of your supply actions
- show, through your worked examples, that your supply actions are appropriate to a range of droughts (see [Appendix B](#) for more information). You

should also demonstrate how they fit in with your communication plan. See section 5 for more details.

Information on supply actions

You should include the following information for each of your actions to maintain supply:

- a description of the action
- the trigger for the action, the drought level that you will plan and prepare for the action and the drought level at which you will implement the action if different
- the implementation timetable (time for preparation, implementation, the estimated time delay between implementation and benefit (yield) of the action and duration expected to be in place)
- the deployable output or yield of the action (in megalitres per day), how you will calculate it and any uncertainty in the estimate or variation according to time of year
- the location (area affected or the whole supply zone)
- specify the time of year during which the action will be most effective and least environmentally damaging
- any other permissions you need such as planning permissions or land drainage consents or constraints that apply (include details of any contact you will have with bodies responsible for giving permits or approvals)
- the risks associated with this action, for instance, effects on the environment, social and economic factors and uncertainties associated with the amount, reliability, quality and timings of the water provided. You should also consider how and if any of your actions may interact with each other as a risk

Information on bulk supplies

See section 9.4 for more information on agreements and arrangements.

All water companies and NAVs who provide or receive bulk supplies should work together to set out in their plans:

- how any bulk supply agreements will be affected by a drought, including any details on upward or downward variations or annual limit constraints
- how any changes to agreed transfers will affect security of supplies, the environment and restrictions to customers. Downward variations in bulk supply agreements could put supplies at risk during a drought. You should explain whether this is a real risk for your company and what actions you would take if this was the case
- any conditions or contractual obligations such as the need to demonstrate demand reductions during a drought

Other considerations

You should also include in your plan if and how you will supply people, businesses and farms that rely on their own water sources (those with private water supplies) for essential water use such as drinking and watering livestock, should their own supplies fail.

During drought, water companies should not rely on or:

- use emergency licence conditions
- seek local arrangements in place of their planned supply actions (including drought permits/orders)

If the supply actions you take in a drought lead to infrastructure improvements that permanently increase water output, you should include this in the deployable output assessment of your next WRMP and/or your WRMP annual review.

4.3.1 Include details of drought permits and orders

Drought permits and drought orders allow you to increase water supplies in response to a drought. Drought orders can also be used to restrict the use of water.

Full details of the application process, timescales, and application requirements for sites in England can be found in the Environment Agency's supplementary guidance on 'Drought permits and drought orders.' You should refer to this guidance as you prepare your applications for drought permits and orders.

You should also refer to the Environment Agency's supplementary guidance 'Position note on compensation-only reservoirs in dry weather' when deciding what drought permits and orders you require.

If you are a water company with sites in Wales or with drought management actions that affect Wales, you should follow the Natural Resources Wales's drought plan guidance relating to being drought permit or order application ready. You should engage with the Environment Agency or Natural Resources Wales early to discuss our expectations on being application ready.

Drought permits and drought orders are not for managing resources during natural disasters, although these could occur at the same time as a drought. Examples of natural disasters include flooding and other emergencies such as mismanagement or other infrastructure failure events. Under these circumstances, you should discuss the best approach to managing the situation with the Environment Agency, Defra or, where relevant, with Natural Resources Wales and the Welsh Government.

Before you apply for a drought permit or order

You should reduce demand and make full use of all your available licensed sources of water (as set out in your WRMP) before applying for drought permits and drought

orders. To minimise the impact on the environment, you should consider what other actions can be implemented instead of relying on any abstractions:

- which have been identified as unsustainable
- where increasing volumes above recent actual abstraction during a drought is likely to cause more environmental damage than other supply actions such as a drought permit or order

You should allow enough time to carry out your demand actions before you apply for your drought permit or order to show they have had a measurable impact on reducing demand. See our supplementary guidance on drought permits and orders for further information.

In any drought permit or order application, you will need to provide evidence of the demand savings you have made. You will need to:

- demonstrate how and by how much you have reduced demand through your actions taken before applying
- use quantitative (such as find and fix rates for actions you have taken to reduce leakage) and / or qualitative measures (such as website hits) to show this
- report the overall demand savings made to date from the combined implementation of your demand actions presented as a reduction in distribution input

Before applying for a drought permit or order you should start to update your application with the latest data and information for each permit or order you are applying for and produce a draft permit/order. You should hold pre-application discussions with the Environment Agency and/or Natural Resources Wales. You should hold these discussions at the earliest opportunity, but as a minimum at least 2 weeks before your formal submission date. During the pre-application stage you should discuss your updated application and your draft permit/order.

When applying for a drought permit or order

Your drought plan must include details of all the drought permits and orders, as well as any other authorisations (such as water discharge permits or impoundment licences) you might apply for under the full range of droughts for which you have planned.

You should discuss your requirements for additional authorisations or permits with the Environment Agency or other relevant bodies and, where relevant with Natural Resources Wales.

You **must** be clear in your drought plan whether your drought actions will be a drought permit or order.

You **must** be able to demonstrate to the satisfaction of the Environment Agency or Secretary of State that:

- there has been an exceptional shortage of rain (ESOR) and
- it has caused a serious deficiency in supplies to exist or be threatened and you therefore have a justification of need, including the timing of the risk to public water supply. You will also need to demonstrate that appropriate drought actions have already been implemented

You should discuss with the Environment Agency and outline in your plan the steps you would take to demonstrate this.

Application readiness

You should carry out as much preparation work as possible in advance of a drought event. Applications for drought permits and orders should, in the majority of cases, be ready to submit prior to being needed.

You should discuss any concerns you have about your drought permit readiness with the Environment Agency as early as possible:

- at your regular meetings with Environment Agency area staff
- as part of the annual drought health check of your drought plan
- during the pre-application stage for applying for your drought permits and orders

As a minimum we expect you to be application ready for your more frequently or more likely to be used drought permit or order sites. This includes the majority of drought permits and orders identified in your drought plan up to and including drought level 3a and for those sites identified in your WRMP to maintain your planned level of service.

To be application ready, you should include the following information in your drought plan or technical appendix for each drought permit or order:

- an environmental assessment that covers the arrangements for environmental monitoring and mitigation. Your environmental assessment should be relevant to the time of year you would use the drought permit or order
- a template for your ESOR case and statement of reasons

If you are not application ready for a drought permit or order, it is likely to delay the determination of your application. You should discuss your environmental assessment requirements for your planned drought permits and orders as part of your pre-consultation discussions with the Environment Agency.

You should regularly assess and update the information held in these applications to keep them current. This will help you and the Environment Agency or the Secretary of State process your permit or order application more quickly and identify any problems in advance.

If you have applications for drought permits or orders for sites in Wales, it will be Natural Resources Wales and Welsh Ministers that determine your application.

You can report on your application readiness in your annual drought health check submitted to the Environment Agency each year.

Grouping of drought permit and drought order applications

If you have a large number of drought permit or order applications that may be required at the same or similar time, you should consider:

- prioritising your applications based on factors such as deployable output or yield and environmental impact
- grouping your applications where they are linked to the same source/s, for example a reservoir group, and where there are likely cumulative environmental impacts. Your grouped permits or orders would have the same exceptional shortage of rain case and justification of need

When developing your drought plan you should discuss with the Environment Agency if it is appropriate to your system to group drought permits/orders.

4.4 Extreme drought plan management actions

If a severe drought worsens, you should consider what further and potentially more extreme drought management actions you could take to delay the need to implement your emergency plan for drought.

You should include information in your drought plan on the actions you could implement in a severe drought after you have implemented all of your drought level 3a demand and supply actions. These are actions that are not covered by your agreed levels of service in your WRMP. We refer to these further actions as level 3b extreme actions. Examples of these type of extreme actions could include customer incentives, temporary mobile desalination plants, and sea tankering. Please refer to [Appendix C](#) for more examples and further information on how to include extreme actions in your plan.

We recommend that you discuss the extreme actions you propose to take during your pre-consultation discussions with the Environment Agency, with Natural Resources Wales if relevant and with Natural England if your actions could affect protected sites. If relevant to your actions here, you should also consider consulting with the Drinking Water Inspectorate.

These discussions will:

- help you identify any barriers to your actions and the need for environmental assessments
- ensure that regulators agree in principle that your chosen actions are viable
- allow you to share with regulators the work you have completed to assess and develop your extreme actions

You should review the viability and level of implementation readiness of your extreme actions as part of your annual review of your drought plan. You should report on this as part of your annual drought health check and through the 5 yearly planning process.

You can consider using alternative pathways to help you plan for the uncertainty or risk of your extreme actions not being available on time or not delivering the required reduction in demand or increase in water supply. See section on alternative pathways.

4.4.1 Demand and supply extreme actions

You should identify a number of demand and supply actions you could take to reduce the likelihood of triggering your emergency plan for drought.

You should look to include as many demand actions as possible, such as tariff changes, customer incentives and customer supply pipe repairs.

Your supply actions may require a greater amount of preparation and permissions than your demand actions and they may also need some infrastructure development. All supply drought actions including your extreme supply actions must comply with relevant environmental legislation covering environmental assessments. If you are not currently drought permit application ready for your extreme supply actions, you should have a plan in place to be application ready in time for when you plan to implement them. You should plan for this accordingly and consider how you could use triggers at earlier drought levels to help you manage the need to prepare for and implement these actions when they are needed. You will need to decide how you will balance the risk of starting work that may not be required if the drought ends before these interventions are implemented.

Please refer to the Environment Agency's supplementary guidance on 'Environmental assessment for water company drought planning'.

Your supply actions therefore:

- may involve a greater level of uncertainty
- are likely to have longer lead in times than your demand actions
- may need triggering before your demand actions

Prioritising your actions

You should prioritise the implementation order of your extreme actions to limit impacts on customers and the environment as follows:

1. demand actions before supply actions and consider prioritising your demand actions in relation to the magnitude of benefit (or confidence in the benefit to be delivered)
2. actions which you are confident are the least environmentally damaging

3. actions which are the most developed, researched and implementation ready

You should review the availability and ongoing viability of each of your extreme actions and consider using early triggers to assess this in your plan. If you find an action is no longer available or viable, you should consider and plan how you could fast track other lower priority extreme actions.

Outside of a drought, you should assess the availability and ongoing viability of your extreme actions as part of your annual review of your drought plan and report this as part of your annual drought health check.

4.4.2 Triggers and a phased approach for extreme actions

You should develop suitable triggers to ensure your extreme actions are available at the point they are needed in a drought.

You should consider phasing the triggers you use, particularly for those extreme actions with the greatest uncertainty. For example, you could use the phases of preparation, mobilisation and implementation. This ensures your actions are planned early enough and have adequate lead-in times. You may need to build in flexibility to these phases based on the situation on the ground.

The phased approach is particularly useful for those extreme actions that would require a significant amount of work to be carried out in advance of their implementation. For example, work involving environmental assessments, recommissioning of unused licensed sources, or where there is a need for licences and permissions such as those needed from the Drinking Water Inspectorate (DWI) could be started early. The triggers and phasing you use should allow sufficient time for you to complete all work in advance of when you plan to implement an extreme action.

Finally, you should show in your drought plan how you will fast track your lower priority extreme actions if you decide your other actions are no longer available or viable. You could consider illustrating this as part of an alternative pathway, see section below.

4.4.3 Alternative pathways

You can consider using alternative pathways to plan in advance the possible different pathways you could take for managing a severe drought and planning your extreme actions during a drought:

- in response to a change of circumstances
- to manage significant risks and uncertainties

You do not need to include every alternative pathway and should focus on the significant risks and uncertainties in your plan. This approach is particularly useful for extreme drought management actions that are planned for but are most likely untested. However, you could also use alternative pathways at other drought levels in your plan.

For example, you could use an alternative pathway to plan what actions you would take in response to an extreme action to use a mobile desalination plant which is then not available.

You could use alternative pathways to show what decisions and actions you will take when, for example:

- your extreme action is no longer available or viable when you would need it or when there is a significant risk of this
- it is taking longer than what you have planned to deliver the benefit of the extreme action (for example due to delays in permissions, infrastructure or building delays)
- you plan to use innovative techniques but are uncertain of the deliverable benefits

You can present any alternative pathways you plan to use as part of your worked examples for testing your plan (see [Appendix B](#)). This will illustrate the flexibility in your plan. You can describe the reasoning you will use to decide on an alternative pathway in your plan and the likelihood of using it and any impacts to customers and the environment that you have considered.

Section 5: Say how you will communicate during a drought

Communication actions are vital for a water company to explain and gain co-operation from customers in reducing water use. Your drought plan should include a communications plan to explain how you will communicate in a clear and timely way from the onset to drought, during and post drought (during recovery).

This should cover your communications with government, regulators, customers, partners, National Drought Group and subgroups (and the Wales Drought Liaison Group if you have sites in Wales), water companies (including NAVs), regional water resources groups and other interested groups such as local resilience forums and water retailers.

In brief, you should develop a communications plan as part of your drought plan that sets out:

- communication activities against each level of drought
- how and what you will communicate on your drought status, current and future risks, impacts, actions you will take and actions you encourage customers to take
- how messages will be framed, and adapted to different audiences
- arrangements for coordinated communications across the sector and regions

Further detail on these elements can be found in sections 5.1 to 5.6.

You should use your experience and lessons from previous recent drought events when developing your plan and messaging.

5.1 Communications activities in each level of drought

Your communication plan should:

- include communication activities for each level of drought and provide details of how those activities are linked to drought triggers; this includes pre-emptive and early communication activities
- identify how you will take a flexible and adaptable approach, scaling communications campaigns up or down if the drought situation changes
- if you are a NAV, how you will escalate and manage communications with different supplier water companies who may be at different drought levels
- recognise early interventions should be reinforced with later messaging, both because of behaviour 'fade' and because short term actions must be contextualised in long-term actions

You should also consider describing how you will communicate approaching drought level 4 as described in section 4.2.2 on further demand actions.

5.2 How, when and what to communicate

Your communication plan should:

- show how, when and how often you will communicate your drought status and what actions you will take to manage it
- explain current and possible risks and how they might affect supply
- identify the actions your household and non-household customers could take to use less water and be more water efficient
- list the other organisations you need to communicate with such as local resilience forums, fire and rescue services and power plant operators
- identify what geographical area (scale) these communications cover
- include appropriate lead-in times for communications activities that are linked to your drought management actions. This includes ensuring NAVs and retailers are notified in advance of the intent to advertise and implement drought measures to ensure implementation is aligned
- be flexible and adaptive, using varied and innovative communications channels to help encourage customers to reduce water use
- explain routes to receive questions or feedback from customers on drought actions and messages

You should set out how you will manage your communications on specific demand or supply actions. For example, how you will:

- increase customer awareness of the limited availability of water in the lead up to and during a drought and the impact on the environment
- communicate, consult and notify customers about your plans to introduce a temporary use ban or to apply for drought permits and orders or to introduce a non-essential use ordinary drought order. You should ensure information on these is easily accessible to customers (including on your website) and customers are made aware of what is planned, including any exceptions for TUBs and non-essential use ordinary drought orders and how they can make representations - include how much time you will need to carry out communications around increasing supply or controlling demand

For companies such as NAVS, with customers across many water supplier areas, there are additional complexities in terms of communications both for the NAV company and the suppliers:

- NAVS should set out the detail of how they will tailor their communications with customers to ensure that the correct messages are relayed relative to water suppliers' drought status

- Suppliers and NAVS need to ensure communications between companies are clear to ensure the advertising or implementing of measures are able to be communicated effectively

5.3 How you will adapt your messages to different audiences

Your plan should identify different audiences that specific communications apply to, the main messages for these audiences and how you will tailor and communicate your activities to each audience.

You should consider Ofwat’s guidance Service for all vulnerability guidance especially in respect to ensuring your communications are inclusive by design: <https://www.ofwat.gov.uk/regulated-companies/vulnerability/service-for-all-vulnerability-guidance/>

Examples of different audiences include households, gardeners, environmental NGOs, sports and leisure groups, sector/trade associations, navigation bodies, regulators and local resilience forums.

You should:

- consider the different information requirements of household (including vulnerable) customers and non-household customers
- consider what behaviour change tactics such as education and awareness or social influence or incentivisation you will take to encourage individuals and communities to voluntarily reduce their water use
- ensure your messages are meaningful and relevant for the audience and enable positive action
- recognise the importance of language and context around actions. For example, customers without gardens may not see a “hosepipe ban” as relevant to them and may not then appreciate the water situation and wider need to conserve water
- pay attention to accessibility requirements
- use varied and innovative communication channels, including non-digital channels

You should include examples of the information and messaging you are likely to issue during a drought. This could include, for example, your water resource position, water efficiency advice or temporary use restrictions notices.

5.4 Arrangements for coordinated communications

Your communications plan should set out how you will coordinate communication campaigns across the sector, region and with other interested parties. This could include working with:

- neighbouring water companies and NAVs
- water retailers for business customers. The Retailer Wholesaler Group (RWG) provides a forum to share best practice to non-household customers and is supported by MOSL. You should consider the steps set in the market-codes by MOSL on how communications should take place in a drought between you as the wholesaler and any water retailers:
<https://mosl.co.uk/document/market-codes/wrc/7237-wrc-part-3-operational-terms-v21-0/file>
- regional water resource groups
- water-focused consumer organisations including the Consumer Council for Water
- regulators including Environment Agency, Natural England and if applicable Natural Resources Wales
- the National Drought Group (and its subgroups) and, where relevant, the Wales Drought Liaison Group to contribute to cross sector co-ordination
- local stakeholders such as local resilience forums
- wider interest groups

Where a drought affects customer supplies in more than three company areas across England and Wales, a representative from Water UK will make best endeavours to act as a communication coordinator to ensure consistent up-to-date messages and briefings are issued across the water industry, and to liaise with key stakeholders.

5.5 Resources and research findings

When planning your communications activities, you should consider the conclusions from recent reports and research including the following reports:

- Environment Agency's Chief Scientist's Group, Review of the research and scientific understanding of drought - 2023 available on GOV.UK here: <https://www.gov.uk/government/publications/review-of-the-research-and-scientific-understanding-of-drought/review-of-the-research-and-scientific-understanding-of-drought-summary-report#:~:text=The%20review%20draws%20together%20and,Changing%20nature%20of%20drought>
- UKWIR report: 'Managing through drought: code of practice and guidance on water use restrictions - 2023': https://ukwir.org/eng/water-industry-technical-report?object=edc34de6-1f52-4ec6-88d4-48187bce7376&Email_Campaign_Mail=2771798
- UKWIR report: 'Review of 2022 Drought Demand Management Measures – summary report': <https://ukwir.org/eng/water-industry-technical->

[report?object=035eacc9-4aa5-4e26-a014-12914822e94c&Email_Campaign_Mail=2587381](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/444444/report?object=035eacc9-4aa5-4e26-a014-12914822e94c&Email_Campaign_Mail=2587381)

- Drought Risk and You (Dry) publications, About drought handbook, 2021, available here: https://aboutdrought.info/wp-content/uploads/2021/02/aboutdrought-handbook_FINAL_2020-1.pdf
- Reviewing Approaches for communicating Drought status And Risk ([RADAR](#)) project: <https://www.ceh.ac.uk/our-science/projects/radar>

You should also reference existing communications messaging resources:

- Consumer Council for Water drought communications toolkit (2023) – flexible messages with a toolkit and social media assets that can be downloaded here (not assessable by the Public): <https://trello.com/b/5SsboSND/drought-campaign-assets-messaging-and-tools>
- Consumer Council for Water report findings on consistent messaging: <https://www.ccw.org.uk/publication/consistent-messaging/>

5.6 Monitor and evaluate the effectiveness of your communications

You should monitor and evaluate the effectiveness of your communications activities during a drought, such as through a change in demand for water, customer feedback, website traffic, or social media. This information can then be used to help develop more effective communication plans for future drought events or even during a drought. It can also be used to provide evidence in any drought permit application of demand savings and action to reduce demand, along with savings from your temporary use bans.

The publicly available Government Communications Service Evaluation Guide is one example of guidance and an evaluation framework you could use. Further information on this is available on GOV.UK here:

<https://gcs.civilservice.gov.uk/guidance/strategic-communication/evaluation/>

Section 6: Environmental assessment, monitoring and mitigation

You **must** demonstrate in your drought plan that you have met your responsibility to monitor, assess and where possible mitigate for the environmental impact of all your supply drought management actions.

You **must** carry out an environmental assessment and produce an environmental monitoring plan for each of your supply actions in your drought plan. Your environmental assessments should also include any mitigation measures you plan to implement. These environmental assessments will help you consider how to best balance protecting the environment whilst maintaining a secure supply of water.

You should include a high-level summary of the environmental assessments you have completed against each of your supply drought actions in your main drought plan or in appendices to the plan. The summary should outline the proposed action, the outcome of the environmental assessment and the key mitigation proposed. You should include the full technical details of your environmental assessments, your mitigation measures and your monitoring plans as a supporting technical report. You should review this regularly to ensure its ready to use and report on that in the annual drought health check.

You **must** ensure that your environmental assessments meet all the expectations set out in the relevant environmental legislation.

Further technical guidance on the requirements for environmental assessment, monitoring and mitigation for drought plans is set out in the following documents:

- Environment Agency's supplementary guidance on 'Environmental assessment for water company drought planning'
- Natural Resources Wales's 'Water company drought plan technical guidance' (see section 1.3)

The Environment Agency's supplementary guidance on environmental assessment covers:

- your responsibilities on environmental assessment for your drought plan
- engaging with the Environment Agency and other regulators
- the approach to environmental assessment
- environmental monitoring
- mitigation measures including avoid, reduce, mitigate
- relevant environmental legislation
- a series of technical appendices

You can also find further relevant information on environmental assessment in the following documents:

- Environment Agency's 'Handbook for scoping projects: environmental impact assessment,' 2002. This is available on GOV.UK:
<https://www.gov.uk/government/publications/handbook-for-scoping-projects-environmental-impact-assessment>
- Chartered Institute of Ecology and Environmental Management (CIEEM) and the Association of Local Government Ecologists (ALGE) 'Ecological Impact Assessment (EclA) Checklist. This is available here:
<https://cieem.net/resource/ecological-impact-assessment-ecia-checklist/>
- 'A practical guide to the Strategic Environmental Assessment Directive: guidance, 2005. This is available on GOV.UK:
<https://www.gov.uk/government/publications/strategic-environmental-assessment-directive-guidance>
- UKWIR's (2021) 'Environmental Assessment Guidance for Water Resources Management Plans and Drought Plans' (21/WR/02/15). This report is available here: <https://ukwir.org/environmental-assessments-for-water-resources-planning>

You should discuss your environmental assessment requirements, monitoring plans and mitigation measures as early as possible with relevant regulators. These discussions should include which drought permit or order sites you need to be application ready for.

The regulators are the Environment Agency and Natural England for sites in England, and Natural Resources Wales and Cadw (for strategic environmental assessments) for sites in Wales. Early consultation with regulators is particularly important for Habitats Regulations Assessments (HRA) and Strategic Environmental Assessments (SEA).

Section 7: Recovery from drought

You should set out in your plan what actions you will take during recovery from a drought. This stage happens before the end of a drought is reached. You should explain:

- what drought management actions, such as temporary use restrictions, you will remove and when this will happen
- when you will communicate the ending of implemented drought actions with affected parties such as customers, NAVs and, where relevant, other water companies and regional groups
- what ongoing or additional actions you will take to mitigate the environmental impacts of any drought permits and orders you may have implemented
- what monitoring you will do to assess recovery

You should have developed triggers for the recovery of drought. See section 3 on drought triggers.

When developing your triggers for recovery from drought, particularly if you have reservoirs, you should ensure your modelling is adapted to account for:

- the delay before you can abstract water and refill your reservoirs due to the water quality issues that usually follow rainfall after drought and high flows
- the bias in any models you use that may rely on historic levels of water quality issues (such as PET) compared to 2024 levels

You should provide a summary of the assumptions you are making in your plan on this, such as delays to abstraction due to the flushing of water quality issues such as sediment and cryptosporidium.

Section 8: End of a Drought

Your plan should outline what you will do after a drought has ended.

Your drought plan should set out:

- your process for stopping your drought management actions and the triggers you will use to identify the end of a drought
- how you will communicate this information to government, regulators, the National Drought Group and subgroups (and the Wales Drought Liaison Group if you have sites in Wales), neighbouring companies and NAVs, customers, regional water resources groups and any other interested groups if relevant (see Section 5 on your communication plan for more details)
- how you will review the processes you have followed during a drought and implement any lessons you have identified
- how and when you will update your drought plan and any related plans

8.1 Identifying the end of a drought

You should only declare the end of a drought after confirming with the Environment Agency and/or Natural Resources Wales that the water resource situation and associated threat to public water supply has returned to normal for your water supply area.

A drought ends when:

- the risks to the security of supply and the environment from drought are no greater than they would be during a normal year
- normal conditions have resumed for a period of time

You should use several indicators, rather than just one, to determine that a drought has ended. You can also use modelling projections to determine if there's still a risk of a return to dry weather and drought under different rainfall scenarios.

If you are reliant on a bulk supply agreement, you should include whether your decision to declare the end of drought is linked to your supplier or your own assessment of indicators.

8.2 Reviewing your plan performance after a drought

Your drought plan **must** set out what you will do to review your performance from the onset, during a drought and directly after a drought.

You should identify what information you will release following the review, such as a 'lessons identified' report and provide a clear timetable of what you will do and when.

You should include any relevant milestones, such as data gathering stage, discussions with regulators and others and report writing stage.

You should set out in your plan how you will review your drought plan, environmental assessments, monitoring plans and mitigation measures as relevant to the drought management actions you have implemented. You will need to understand:

- whether your drought triggers were effective and still appropriate at identifying when to prepare for and implement your drought actions
- how effective your drought management actions were, whether your chosen actions were the most appropriate and whether you should have taken any different actions or acted more quickly
- whether you managed the risk at the time appropriately and what changes you need to make to your operations, internal processes (such as management sign off) and your drought plan. For example, you should look at the effectiveness of your restrictions and communication campaigns on reducing water use, your leakage management and your drought permit and order applications
- whether your estimates of reductions in water demand for each of the measures introduced matched actual reductions and the potential influences of other factors on these findings such as the weather
- the observed environmental impacts of your drought actions using any monitoring results and appropriate analytical techniques. You should also reflect on how effective your monitoring was and if you need to do anything differently in the future
- how effective your mitigation measures (avoid, reduce, mitigate) were to reduce the adverse impacts on the environment of your supply drought management actions and whether you need to implement any changes in the future
- how well you worked with other neighbouring water companies, NAVs and water retailers and regional water resources groups to implement drought management actions where required
- how effective your data and information sharing was with regulators, the National Drought Group and subgroups (and the Wales Drought Liaison Group if relevant), regional water resources groups and other relevant groups
- how you will inform any reviews being carried out by government, the regulators, the National Drought Group and subgroups (and the Wales Drought Liaison Group if relevant), regional water resources groups or other relevant groups and if you need to consider the outputs of these in your own review

The environment often takes longer to recover from the effects of drought than hydrological indicators. If you have implemented a supply-side drought action, you

should continue to carry out relevant post drought monitoring (environmental monitoring and assessment) for a sufficient period of time to understand how the environment is recovering. See the supplementary guidance on environmental assessment for more information.

8.3 Updating your drought plan and related plans

You should also use the results of your review of the drought event to update your water resources management plan (WRMP), drought plan and operational response where relevant. You will need to understand:

- what actions are needed to maintain the sources you used during the drought such as investing in them or reassessing yields
- if you need to make any changes to your demand forecast, particularly peak demands, or to your longer-term demand management strategy
- if you need to make any changes to your levels of service
- if you have identified the need for any new drought permits or orders
- whether any investments you made during the drought will affect other plans or programmes such as River Basin Management Plan objectives or the Water Industry National Environment Programme. For example, if you brought forward the implementation of an infrastructure improvement as a result of a drought event
- whether any information you learned has changed your understanding of your drought risk. For example, are any longer-term improvements to resilience needed, and how to reflect this in your next WRMP and/or business plan

After you have completed your review, you should set out how you will:

- make changes to your plans and operational response via an action/delivery plan
- report on this in your annual drought health check report
- if required, provide an update to your WRMP through your annual review of your WRMP for non-material changes or reconsult on your WRMP for material changes

You should set out your expected timescales for making any changes and how you will monitor your progress with implementing the changes. You should also consider if and how you should tell your customers of changes you have identified. Please refer to section 2.9 on when to produce a revised drought plan.

We expect you to work with the Environment Agency and/or Natural Resources Wales and Natural England at an early stage to help shape your review and action/delivery plan for making changes. In addition, you should invite any other people or organisations involved in the drought to contribute to your review.

Section 9: What else you should include in your plan

This section provides details on other information that should be included in your plan.

To help you as you develop your drought plan, please refer to:

- our supplementary guidance 'Checklist for water companies'
- [Appendix D](#) for some further information on the structure and layout of your drought plan

9.1 Customer and stakeholder summary

Your drought plan should include a non-technical summary for customers and stakeholders, that is published on your website. This should be a high level version of your drought plan that is easy to understand.

You should use the summary to help customers and stakeholders understand the importance of drought planning, what you will do during a drought, and how they might be affected. Your summary should:

- align with the narrative and actions in the main technical drought plan
- not include the technical reasoning the company has given for the approach planned

If you write your summary in an engaging and informative way, your customers and stakeholders are more likely to:

- support your drought actions
- respond positively to your requests for voluntary restrictions and act to conserve water during times of low water supplies
- better understand your plan and provide comments during the consultation on your plan

We suggest your summary includes:

- what your drought plan is for – including the definition of a drought, how dry weather affects the environment and water supplies in your area
- how you monitor your water resources before, during, and after drought
- an explanation of your drought plan triggers
- the actions you will take at each drought level as the situation escalates and then returns to normal
- your levels of service and the likelihood that you will introduce drought restrictions
- for each level of a drought, it should explain how your customers and stakeholders might be affected

- a summary of the possible environmental impact at each level of drought
- how you will communicate with customers at each level of a drought
- how businesses may receive different communications and how they will be impacted differently by restrictions
- the actions you will take following a drought to review your response and update plans
- an overview of any changes you are making to your drought plan since the previous one
- how your drought plan links to your other plans, such as the WRMP and your emergency plan for drought. See section 1.6 Links to other plans
- how your WRMP lists the drought permits and orders shown in your drought plan, except any listed as an extreme action in level 3b
- the role of your regional group during a drought
- signpost to where customers and stakeholders can make comments on your drought plan consultation

Presenting information

We suggest you present your summary using an appealing format, including visuals and maps to break up any large sections of text. The summary should be an engaging overview, so we suggest that this is a reasonable length of around 10-25 pages. Some aspects may work well in tables – for example, it may help customer and stakeholder understanding to present actions against each drought level in a table. You should also provide a more descriptive breakdown of each drought level and include definitions of the temporary water use restrictions such as temporary use bans and other actions you plan to use. This will support clarity and ensure the text is accessible.

It may support your messages to reflect on water as a precious resource and the impact water scarcity has on the environment and protected sites in your area. We suggest you also provide links to where people can learn more on water saving.

9.2 Your drought management structure

Your drought plan **must** set out the management structure you will put in place during a drought indicating who has responsibility for what.

Suggested roles within a drought management structure include:

- drought manager
- public relations lead
- customer services representative
- communications lead

- technical staff
- board or senior executive

You should include details of individual roles and responsibilities in your drought plan. You should also include any changes to the structure that may happen as a result of a worsening drought and the triggers for those changes.

You should also describe any management structure actions that are linked to drought triggers, such as how often the drought management team meets.

9.3 Maps

Your drought plan should include maps showing, for example:

- the management areas and water resource zones you use, for example, the areas where you would plan to implement temporary use bans
- the alternative resources you can use during a drought (such as bulk transfers)
- the location of all potential drought permit and drought order sites
- important ecological sites that your actions may affect, for instance designated and non-designated sites of conservation importance
- existing bulk transfers with neighbouring companies that could be affected in a drought
- the neighbouring companies you expect to liaise with during droughts
- the area covered by your regional water resources group

You should highlight any maps that you propose to redact or edit out in the published version, so that the Secretary of State can confirm whether it is to be removed on grounds of national security.

If you are a NAV, you could have multiple sites across many supplier water company water resource zones. You should ensure you consider how best to illustrate the distribution of your sites.

9.4 Agreements and arrangements

Your drought plan should include information on:

- any data exchange arrangements you have with the Environment Agency and/or Natural Resources Wales
- any consultations you have carried out with other water companies, NAVs, regional water resources groups and water retailers and a statement of how you have taken these into account

- agreements you have with other water companies about how you will manage bulk supplies, transfers of water or division of shared resources as a drought escalates. You should:
 - clearly explain how these agreements differ from those in normal operations and assumptions set out in your WRMP. You should summarise this information in a table shown at company level and ensure it is accurate and consistent with your WRMP (or explain why any figures may differ) and the drought plans of other relevant water companies
 - explain how you might receive and consider any additional supply requests from local authorities to help those on private supplies who are unable to switch to mains during a drought. You should outline the support you may offer
- any arrangements with your regional water resources groups on coordinated drought actions
- information on how you will mitigate any reductions in supply for firefighting as a result of your actions as required by Part 5 of the 2004 Fire and Rescue Services Act available here:

http://www.legislation.gov.uk/ukpga/2004/21/pdfs/ukpga_20040021_en.pdf

9.5 Check your plan is consistent with other plans and can be published

You **must** make sure that your drought plan is consistent with your WRMP and your regional water resources plan.

Your plan should also be closely aligned with other plans. You should consider and explain how your drought plan links to:

- National framework for water resources (for supply areas within England)
- Area statements and well being plans for Wales (for supply areas within Wales)
- your business plan
- your emergency plan for drought
- any drought plans produced by the Environment Agency and/or Natural Resources Wales
- local authority contingency plans for private water supplies
- river basin management plans
- other water companies' plans if your plan involves transfers or bulk supply agreements with them (including NAVs)
- other sector drought plans (as relevant)

If your plans are not fully linked because, for example, of the different times that they are produced, you should explain this and how you will improve the links in future.

9.6 Compensation arrangements for drought measures

Your drought plan **must** set out the compensation you may need to make in the event of losses/damages to source owners/affected parties as a result of implementing a drought action. 'Compensation' is within the meaning of Schedule 9 to the Water Resources Act 1991, available here:

<https://www.legislation.gov.uk/ukpga/1991/56/schedule/9>.

This includes compensation for compulsory purchase and also compensation for those that have suffered loss as a result of a drought order or permit overriding their rights to the water. Please refer to the Environment Agency's guidance on 'Drought permits and drought orders' for more details.

You may also consider including the compensation arrangements, if any, that may occur if you implement temporary use bans and non-essential use ordinary drought orders.

DRAFT

Appendix A: Drought Plan Process

The Secretary of State (SoS) will direct companies to publish, receive representations and will consult with Welsh Minister for sites in Wales.

Preliminary discussions (pre-consultation)

1. You should decide on the changes you wish to make to your drought plan.
2. You should carry out preliminary discussions with stakeholders.

Preparation of draft drought plan

3. You should prepare your draft drought plan in line with the directions from the SoS.
4. You should submit your draft drought plan to the SoS and, if appropriate, Welsh Ministers.

National security checks

5. **Defra** will check your draft drought plan for any security concerns and forward to the relevant parties.
6. You will and other third parties may make representations on security concerns to the SoS.
7. **Defra** will assess these representations and notify companies of the decisions made on commercial confidentiality and national security. The SoS will direct you to publish your draft drought plan.

Publish draft drought plan

8. You should publish and distribute your draft drought plan for consultation as per the directions.

Representations

9. You will allow a period of time for consultation and representations to be made. Representations from consultees on your plan will be sent to the SoS.
10. **Defra** will receive and share the representations with you.
11. You should assess the representations on your draft drought plan and publish a statement of response.

Amendments to plan (as directed by SoS)

12. The SoS will assess the need for a hearing or inquiry on your draft drought plan.
13. The **SoS** will direct you to amend your draft drought plan if necessary.
14. You will be able to object to the direction on the basis of commercial confidentiality if necessary.
15. **The SoS** will confirm the direction or issue a new direction to you.
16. You should prepare your final drought plan.

Prepare final drought plan

17. **The SoS** will direct you to publish a final drought plan after checks.
18. You should publish your final drought plan.

Appendix B: Worked examples – testing your drought plan against a range of drought scenarios

As part of your drought plan you should provide selected worked examples to show how you would expect your drought plan to work under a range of droughts.

Your examples should:

- demonstrate how your drought triggers would work in different droughts
- show what actions you'd take in different droughts
- demonstrate the expected time frames and durations for your actions
- show what the effects of a range of droughts such as the worst drought on record

You should test your plan against a selection of different types of drought, as detailed in the guidelines. You should explain the conditions for how each drought example developed and give detail as to which parts of your system were most significantly affected. You should present this as relevant graphs for each of your water resource zones and annotate it to show where your drought trigger points are crossed and when you will carry out the associated actions (see an example graph below).

We expect you to clearly show the timings of when you will prepare for and then carry out your various drought management actions to make sure the actions are implemented in time, as well as displaying how these various actions will improve the water resource position for your indicator site so delaying further potentially more environmentally damaging actions. You should also indicate how these actions correspond to the level of drought restrictions – in other words levels 1 to 4.

If you have decided to use alternative pathways in your plan, they can be presented on your worked examples. You should show how your plan could deviate from your core plan to address the risks and uncertainties you have identified. You can choose to start an alternative pathway at any point in your plan.

An example of the sorts of actions you may want to include on your graph are:

- actions to optimise specific existing sources
- contacting Environment Agency and/ or Natural Resources Wales to discuss the situation
- enhanced media campaigns – including requests for voluntary restraint
- enhanced leakage management
- rescheduling planned maintenance if possible

- fast tracking any infrastructure improvements
- planning for, advertising and then implementing temporary use bans, including how far in advance of any drought permits or orders you would aim to do this
- prepare to apply for drought permits or orders
- send formal application for drought permit or order
- hearing held if needed
- permit or order granted
- implement drought permit or order
- timing of implementing any non-essential use ordinary drought orders
- pressure control
- bulk transfers – either limiting your own or enhancing ones from other water companies
- discussions with neighbouring water companies about initiating a change to bulk supply arrangements

Worked example graph

The graph below shows a worked example of reservoir or water resource zone storage and how you could visualise drought triggers and their associated actions over time. The graph also shows at which drought level actions take place. This graph is shown over 3 years. The “x” axis, along the bottom of the graph, presents each month and the “y” axis, along the left side of the graph, presents the percentage storage level associated with a drought level.

The drought levels appear as a stacked bar chart where each level is associated with a lower and upper percentage storage level that varies according to the time of year. For example, percentage storage is shown as higher over the winter months and lower for the summer months for all levels except dead water and emergency storage which is more fixed. From the lower storage levels to the top, the levels shown are:

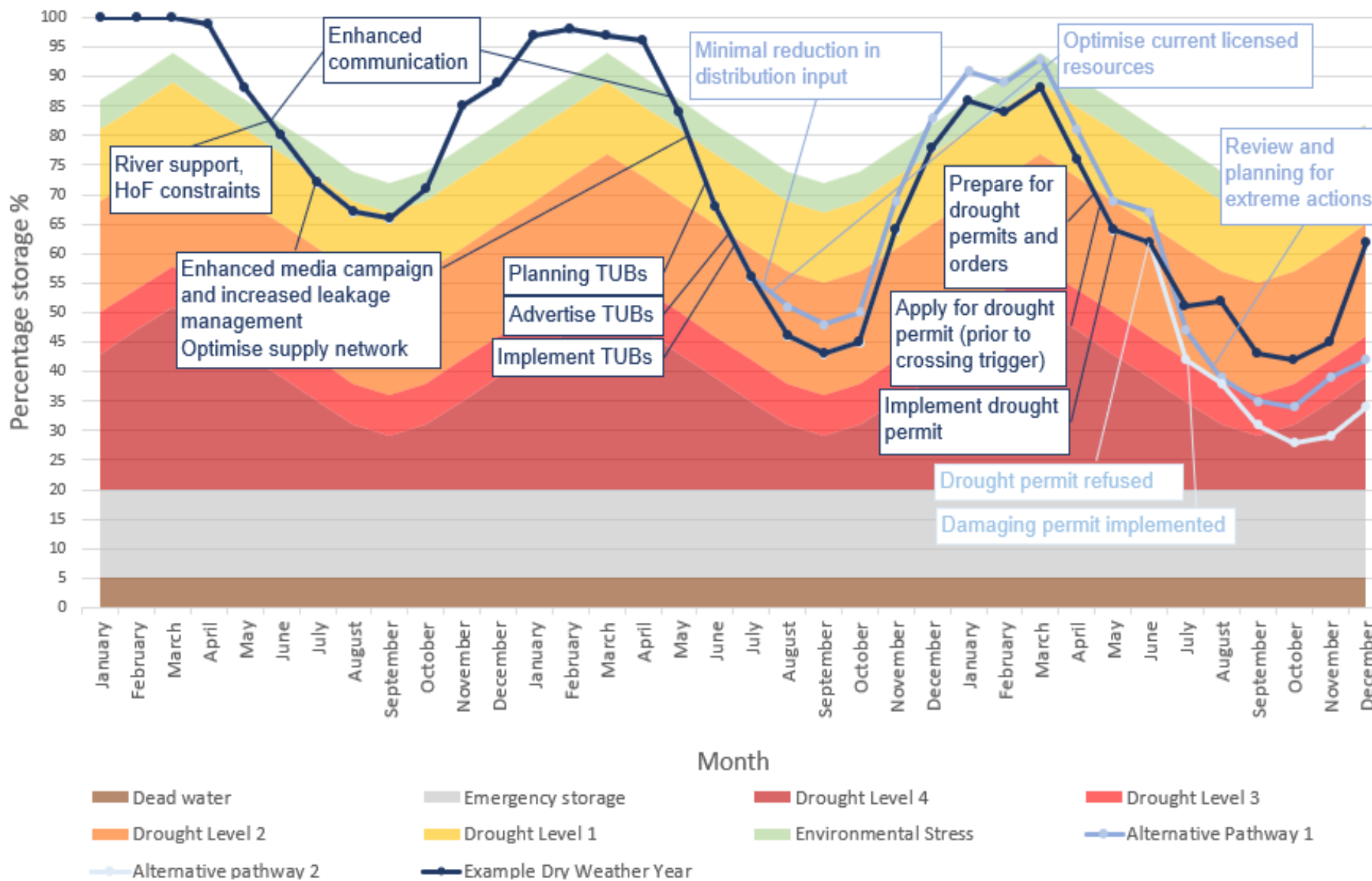
- dead water (in brown)
- emergency storage (in grey)
- drought level 4, emergency plan for drought (in dark red)
- drought level 3b, severe drought (in red)
- drought level 2 and 3a, drought (in amber)
- drought level 1, prolonged dry weather (in yellow)
- a suggested environmental stress level (in green)

A line graph (in blue) shows the path of example dry weather that crosses the various drought levels and percentage storage levels. Examples of drought plan actions that could be triggered at different points along this line are shown in text

boxes, illustrating the core drought plan in action. Two examples are also given of alternative pathways that could be triggered and lead to different actions away from the main line graph of the core plan.

DRAFT

Worked example showing drought levels and associated actions



Appendix C: Extreme drought plan management actions

You should include information in your drought plan to show what actions you could take to delay the need to implement your emergency plan for drought and emergency restrictions as a severe drought worsens. These are actions you would take after using your level 2 drought actions.

You should explain how or if you would use your reservoir emergency storage in conjunction with your extreme actions.

You should also explore the full range of actions included within the ordinary drought order legislation (section 74(2) of the WRA 1991). These include applying to:

- take water from any source specified subject to conditions
- prohibit or limit the use of water for any purpose specified
- discharge water to any place specified subject to restrictions
- prohibit or limit taking of water by an appropriate agency
- suspend or modify restrictions relating to abstraction, discharge, supply, filtration of water

Your extreme actions should:

- be assessed by you as realistic and technically feasible
- include triggers with realistic lead-in times
- be practical to implement
- be likely to be temporary
- generally not result in permanent increases to deployable output i.e. usually distinct from WRMP options

You should regularly review the viability of your extreme actions, any further work you need to do to be implementation ready and the appropriateness of your triggers and lead-in times.

See Tables 3 and 4 which provide a list of examples of the demand and supply actions you could use along with some background details and examples of significant barriers.

What to include in your drought plan?

You should include a summary of the extreme actions you have chosen. An example format for this has been provided in Table 5.

You should include information for each extreme action on:

- the type of action (supply or demand)
- the water resource zones in which it would apply
- a description of the action and the likely trigger for implementing it
- an indication of the benefit or saving made from implementing the extreme actions
- a list of any significant barriers
- an indication of the timescale for implementation

You should consider the possible constraints on the availability of each extreme action. For example, a wider drought would impact other water companies and may lead to competition for limited resources such as road and sea tankers and mobile desalination plants.

You should provide background details on the extreme actions you have selected that covers:

- the measures you have used to screen your extreme actions
- actions you have discounted, the reasons for this
- how you have prioritised the sequence of implementing of extreme actions
- any significant work you will need to complete in advance for an extreme action
- when and how you will review the viability and appropriateness of your extreme actions
- which options could be fast tracked, if needed

Regional plans

You should engage with your regional water resources group and its members when developing your extreme actions in order to look at how to save and share water resources. You should consider what collaborative actions you could take with neighbouring water companies and across your regional water resources group.

Table 3: Examples of extreme demand actions

If you are proposing any extreme actions that may affect sites in Wales, you should discuss these with Natural Resources Wales.

Type of action	Background	Any significant barriers
Removal of exceptions	Consider removing all exceptions under temporary use bans and non-essential use ordinary drought orders.	
Media & Communications	National campaigns to change culture, excessive water use seen as socially unacceptable, keeping customers aware of the current storage situation, Day Zero language, guides for customers to show how to restrict water use to 50 litres/person/day. Hard hitting messages and images.	
Supply pipe repairs	Free and fast supply pipe repairs for customers.	
Tariff changes and incentivisation	Higher tariffs for high use, reward scheme for using less water, incentive scheme e.g. bill rebate, postcode scale targets and reward for all if target met.	Metering
Pressure management	Further reduce pressure while still maintaining essential services, nighttime reductions.	DWI standards, vulnerable users
Relocations	Relocate farm stock and/or businesses	Feasibility, water availability
Non-potable use	Set up non-potable water refill points for businesses on a community scale, use of containers in home to capture water for re-use or collection, mobile temporary treatment units to utilise water for non-potable use, temporary rainwater capture	Volume, health concerns, workforce.

Type of action	Background	Any significant barriers
	systems on buildings, temporary barriers to help capture water in fields, mass fitting of free water butts in homes.	
Water efficiency and Metering	Specific targeting in high demand areas.	

Table 4: Examples of extreme supply actions

If you are proposing any extreme actions that may affect sites in Wales, you should discuss these with Natural Resources Wales.

Type of action	Background	Any significant barriers
Drought orders	Use full range of powers available with drought orders, temporary increases to licences that have been reduced or revoked, compensation flow reductions, abstraction from alternative sources.	Environmental impacts, WFD objectives.
Catchment actions	Water use plans across sectors, link users to share resources, combining drought order applications.	
Trades/transfers	Short term trades between companies/sectors. Plans to increase/decrease bulk supplies.	Water availability, Environmental impacts.
Tankering	Moving water around, road and sea tankering.	Competition and availability of tankers, scale required, access.
Supply schemes	Fast tracking of WRMP schemes.	Feasibility, time frames.

Type of action	Background	Any significant barriers
Network changes	Temporary pipelines, new supplies, speed up construction process e.g. overland pipes.	Environmental impact, distance, planning consent.
Water re-use or recycling	Redirecting discharge (direct to supply or relocate to other watercourses).	Environmental impact, DWI constraints.
Desalination	Temporary mobile plants for desalination by water companies near or adjacent to coastal or brackish waters.	Competition and availability in a wider drought. Connectivity to network, environmental impact, scale.
Mothballed sources and re-purposed sources	<p>This also refers to sources referred to as: unused, disused, re-commissioned, de-commissioned, emergency or abandoned. These may be with or without abstraction licences and with or without maintained infrastructure. When re-commissioning unused sources of water that are licensed:</p> <ul style="list-style-type: none"> • if you have not used the licence for a long time, you will need to complete a new environmental assessment and address the requirements of the Drinking Water Inspectorate • where all or part of an unused licence is found to pose a risk of deterioration, we expect the company to give up that proportion of the licence and to use a drought permit or order if needed to access the water 	Environmental impact, DWI constraints, infrastructure development. Confidence in deployable output.
Temporary water treatment	<ul style="list-style-type: none"> • When a source is not currently in use due to water quality issues, considering mobilising temporary water treatment units or filtration plants in order to use this source. 	Availability of treatment units and DWI authorisation and agreement.

Table 5: Example format for actions in extreme droughts

Type of action	Water Resource Zone	Summary of action	Trigger for action to be used	Estimated benefit / saving	Barriers	Environmental impacts	Timescales (in months and years)	Priority order for implementation
Such as demand or supply.	Identify the zones affected.	Give brief description of the action.	Give brief description of the water supply situation that would trigger the action or what actions will precede this.	Such as the volume of water made available or saved.	Identify any significant barriers or actions required by others before you can implement this action. For example, DWI standards, network constraints.	Provide your assessment of the environmental impact and the EARs or monitoring completed or planned and the timelines for this work.	Provide an indication of the lead in times and work that would be part of each phase for preparation, mobilisation and implementation. You should identify significant work and provide estimates for time needed to complete such as DWI permissions and environmental assessment work.	Identify the order in which you will implement your extreme actions

Appendix D: Advice on the structure and format of your plan

You can decide on the precise structure and layout of your drought plan. However, a recommended structure for a drought plan is presented below.

A common structure and approach will help regulators, consultees and customers to make consistent and comparable assessments of drought plans. In addition, retaining a common plan structure between draft and final plans makes it easier to see where changes have been made to a plan in response to consultation.

Section 1 Introduction:

- High-level summary of supply system and drought management areas if different
- High-level summary of links to regional water resources group plan(s), your WRMP and your emergency plan for drought

Section 2 Drought triggers

- Drought triggers for each water resources zone or drought management area
- How you have tested your drought triggers should be in an appendix

Section 3 Drought actions

- Demand actions
- Supply actions including drought permit and order sites
- Level 1-3 category of your actions
- Environmental or other sector actions

Section 4 Extreme drought plan management actions

- An example format table is included in Table 5, Appendix C
- Triggers and the extreme actions including information on their implementation

Section 5 Customer communications

- Communication plan including triggers and level category
- How you will coordinate communication campaigns across the sector, region and with other interested parties

Section 6 Environmental Assessment

- Summary of environmental assessments of drought actions. Relevant detailed technical information should be included as an appendix or sign posted to where the report is available

Section 7 Recovery from drought

- What actions you will take during recovery from a drought

- Include triggers, your modelling and related assumptions

Section 8 End of Drought

- Ensure triggers for end of a drought are included in your drought plan
- How you will review your performance during and directly after a drought

Section 9 What else you should include in your plan

- Drought Management structure
- Agreements and arrangements of bulk supplies and transfers as drought escalates
- Links to other plans – this may also be covered in actions and trigger section
- Compensation arrangements

Appendices:

- Drought Vulnerability assessment if completed as part of drought plan
- How you have tested your drought triggers
- Clearly labelled detailed environmental assessments if not available elsewhere (i.e. on request)