

## How to write and publish a drought plan

From: [Department for Environment, Food & Rural Affairs](#) and [Environment Agency](#)

First published: 20 July 2015

How to prepare, write and publish a drought plan if you're a water company based entirely or mainly in England.

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A drought plan sets out what actions you'll take before, during and after drought to maintain a secure supply of water. It also sets out how you'll assess the environmental effects of your actions to maintain supply and what you'll do to mitigate for damage.

Where we have use the word “**Must**” we mean that this is a statutory requirement. A company that does not follow a “must” is at high risk of producing a plan that is not valid, unless it can provide a very strong reason for not doing so.

Where we have used the word “**Should**” we believe that the advice needs to be followed to produce a valid 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 produce a drought plan if:

- there's been a change in your circumstances, eg if you've applied for a drought order or permit that wasn't in your plan
- a drought has shown your previous plan to be inadequate
- you've been directed to by the Secretary of State for the Environment, Food and Rural Affairs, eg if your plan no longer adequately sets out how to maintain a secure supply of water during drought

In any case, a new plan must be developed and published as a final plan no later than 5 years from the date when your plan (or revised plan) was last published

You must send your drought plan to the Secretary of State. If your plan will affect sites in Wales you must also send it to Welsh ministers.

If your company is based entirely or mainly in Wales contact [Natural Resources Wales](#).

## Preparing for your plan

Before you write your drought plan you must hold preliminary discussions, write and distribute a draft plan, and hold a consultation on it.

### 1. [Before you write a drought plan](#)

- 20 July 2015
- Detailed guide

## Writing your plan

Your plan must [identify drought triggers](#) to show when actions are needed to maintain a secure water supply and what each action is. Your plan must set out how you'll monitor the effects of a drought and the actions taken under the plan. You must also set out what mitigation and compensation measures you plan to make to minimise the impact of your actions on the environment.

You must also write an environmental assessment which sets out the consequences of your planned actions on the environment. An environmental monitoring plan is also needed which sets out the monitoring you've used or will use to inform your understanding of the environment that may be affected by your plan.

### 1. [Write a drought plan](#)

- 20 July 2015
- Detailed guide

### 2. [Drought plans: environmental assessment and monitoring](#)

- 20 July 2015
- Detailed guide

## Publishing your plan

You must send your plan to the Secretary of State before you publish it and follow any statutory directions that they issue. A statutory direction is a specific instruction given by the Secretary of State that is legally binding and must be followed by water companies.

### 1. [Send and publish a drought plan](#)

- 20 July 2015
- Detailed guide

For more information about how drought affects England and how the Environment Agency works with government and other organisations to manage these effects read the [national drought framework](#).

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# Before you write a drought plan

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Part of: [How to write and publish a drought plan](#)

What you must do before preparing a drought plan if you're a water company based entirely or mainly in England.

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Before you write your final drought plan, you must write and publish a draft drought plan.

## Hold preliminary discussions

Before writing your draft plan, you must carry out preliminary discussions with the following statutory consultees:

- the Environment Agency and the Secretary of State **for the Environment, Food and Rural Affairs**.
- Natural Resources Wales and the Welsh ministers if your plan will also affect sites in Wales
- Ofwat
- any licensed water supplier that supplies water to premises in your area through your supply system

If your plan is likely to affect a designated conservation site then you must also consult with [Natural England](#) or with Natural Resources Wales for sites in Wales at the earliest opportunity. You should also consider if your plan is likely to affect any local wildlife sites that have been designated by the local authority and consult with the managers of these sites.

Designated sites include:

- special areas of conservation
- special protection areas
- Ramsar sites
- sites of special scientific interest
- national nature reserves
- local nature reserves
- marine conservation zones

For more help locating designated areas you can use the page [‘Find protected areas of countryside’](#).

You should also carry out preliminary discussions with other consultees, eg:

- any water supplier affected by your supply system
- any water companies you’ve bulk supply or shared resource agreements with
- [customer challenge groups](#)
- any other groups or organisations that your drought plan is likely to affect (eg power plant operators or the Canal & River Trust)

## What to discuss

In your preliminary discussion you should discuss:

- what you want to include in your new plan
- what you intend to do differently from your existing drought plan
- previous recommendations from statutory consultees (eg the Environment Agency or Natural Resources Wales)
- any advice you’ve had from the government
- lessons you’ve learned from recent experiences of drought

You must start these discussions as early as possible – you’ll need more time if you’re planning large-scale changes. By starting these discussions early you may reduce the need for changes later in the process. There’s no limit to how far in advance you can contact the Environment Agency or Natural Resources Wales to hold these preliminary discussions.

## Write a draft drought plan

Your draft drought plan should use the feedback from the preliminary discussions and be written in the same way as a [final drought plan](#). You must also follow any statutory directions you receive from the Secretary of State about the content of the draft plan.

## Send your draft drought plan

You must send your draft drought plan to the Secretary of State and if appropriate the Welsh ministers before you publish it for consultation.

When you send your draft plan to the Secretary of State you should:

- submit a statement from your security manager, certifying that the plan has been reviewed and that it does not contain any information that would compromise national security interests. The statement must also say whether the plan contains any information that may be considered to be commercially confidential.
- highlight any information that you propose to redact or edit out in the published version so that the Secretary of State or Welsh Ministers can confirm whether it is to be removed on grounds of national security display the wording you plan to redact or edit out information you propose to use so the Secretary of State can make a decision on.

If you think a draft plan shouldn't be published because it contains sensitive information, you must tell the Secretary of State as soon as possible.

## **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 in paper form at one of your main offices.

You must send copies of the draft plan to your statutory consultees and you should send copies to all other organisations involved in the preliminary discussions.

You must also publish a statement with the draft plan that:

- specifies whether you've 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 comments must be received by and where they should be sent

## **Carry out a public consultation on your draft drought plan**

You **must** consult on your draft plan and produce a statement of response within 15 weeks unless specified differently in a statutory direction from the Secretary of State.

You'll need to decide how long your consultation will be open to receive comments and how long you'll take to respond to them.

## Publish a statement of response

You must publish a statement of response after completing the public consultation and write a [final drought plan](#) which includes any changes made as a result of the comments you've received. You must publish the statement of response within 15 weeks of publishing your draft plan for consultation unless specified differently in a statutory direction from the Secretary of State.

Your statement of response must make it clear what has changed as a result of the consultation. It should:

- show that you've considered the comments you've received
- clearly set out any changes you've made to the draft drought plan and your reasons for making them
- say if you haven't made changes as a result of comments

You should decide whether the statement of response alone allows people to understand the changes you've made between your draft plan and final plan. If it doesn't you may need to publish a revised plan alongside it with changes highlighted.

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

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## Write a drought plan

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Part of: [How to write and publish a drought plan](#)

How to write a water company drought plan.

## Contents

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## What to include in your drought plan

Your plan should include how you'll deal with a range of droughts including both long duration and very low rainfall relative to expected conditions in your water resource zones (WRZs). You should at least plan to be able to provide supplies through a repeat of historic droughts in your company records. However, we strongly encourage you to plan for drought events that are of longer duration and lower rainfall than those in the historic record, or if you choose not to you should explain why.

You should understand what drought events your supply system is vulnerable to and what the probability of such an event occurring is.

If additional options, which are not included in your current [water resources management plan \(WRMP\)](#) are needed to deal with droughts worse than recorded then you should make a case for them in your drought plan and include them as resilience options in your next WRMP.

You don't need to say what you would do during a civil emergency as this is covered by your emergency plan but you should set out the full range of actions that you'll use up to this point.

Your drought plan should set out:



- your chosen [drought triggers](#) and what they do, eg establish that a drought is occurring
- [what you'll do during a drought](#), eg how you'll maintain supply or reduce demand
- the details of any [drought permits and orders](#) you may apply for
- how you'll [monitor and assess the adverse effects of your actions](#)
- what you'll do to [minimise the adverse effects of your actions before, during and after a drought](#) taking into consideration the cumulative effects of your own actions and other licensed abstractors
- how you'll [communicate with your customers and others about the drought](#)
- [what you'll do when the drought is over](#), including how you'll review what you've done

## Maps you should include

Your drought plan should also include maps showing:

- the management areas and WRZs you use
- the alternative resources you can use during a drought (eg bulk transfers)
- the location of all potential drought permit and drought order sites
- important ecological sites that your actions may affect, eg designated and non-designated sites of conservation importance

## What else you should consider

Your drought plan should also include:

- any data exchange arrangements you've with the Environment Agency or Natural Resources Wales
- any consultations you've carried out with other water companies and a statement of how you've taken these into account
- any agreements you've with other water companies about bulk supplies, transfers of water or division of shared resources
- how you've tested your drought plan against different drought scenarios - test scenarios should differ in severity, location and length and where possible be related to those used in your WRMP
- how you've produced the drought events you'll use in your scenarios
- information on how you'll mitigate any reductions in supply to fixed fire-hydrants as a result of your actions eg pressure reduction

## What to include along with your plan

You should also:

- produce a non-technical summary of the drought plan
- present detailed technical information as an appendix

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

You must make sure that your drought plan is consistent with other plans, including:

- WRMPs
- business plans
- emergency plans
- drought plans by the Environment Agency or Natural Resources Wales

You must consider whether any information is commercially confidential or a risk to national security before including it in your plan.

## Identify drought triggers

Drought triggers help you identify when you need to take action at all stages during a drought, from its onset to its end. Your drought plan should include your chosen drought triggers and the actions connected with each one.

You can use the following as drought triggers, on their own or in combination with each other:

- rainfall levels
- reservoir volume
- river flows
- groundwater levels
- any other appropriate measures

You should explain why you've chosen your drought triggers.

You should choose drought triggers at one of these levels:

- drought management zones
- individual WRZs
- groups of resource zones
- your company as a whole

You should say which of these 4 levels you've chosen and explain why you've chosen it. Different triggers might apply in different areas, depending on the situation. Include a map in your plan if you need to make separate decisions about triggers in different areas.

Where necessary you should also include control curve diagrams to show your chosen triggers and levels of operation. Control curves display what level of operation (eg level 1 might be normal operations whilst level 4 might be enact all supply side drought actions) a company should be in based on how much water is available and time of the year it is.

You should allow enough time in your plan to prepare for and carry out the actions associated with each trigger, eg applying for a drought permit or drought order or introducing water restrictions.

You should also show that your drought triggers are consistent with your WRMP **where appropriate**.

## **Test your drought triggers and proposed actions**

You should use tests to prove your chosen triggers are appropriate to a range of droughts. Your tests should:

- identify how well your drought triggers would work in different drought scenarios
- identify what actions you'd take in different scenarios
- assess what the effects of past droughts would be **and what actions you'd take** if they occurred today

Tests should cover drought lengths that are:

- short-term, one-season droughts - typically 6 to 12 months
- medium-term, multi-seasonal droughts - 1 to 2 years, typically consisting of 2 dry summers and a dry winter
- long-term droughts - typically lasting more than 2 years

**You should explain what relevant data you've used to derive the conditions for each of your tests. This should include historic data (eg worst drought on record) and any data you may have had to produce through statistical simulation or collect indirectly (eg from similar catchments).**

Your drought plan should:

- **describe the timeline leading up to your scenarios eg what combination of drought triggers initiated the drought and when they were each triggered**
- provide details of the **duration and rainfall deficit** of the scenarios used in your tests
- justify why you chose these scenarios, explaining why they were appropriate for a particular area
- show how you've used the tests to develop drought triggers
- explain what actions you'd take for each scenario
- confirm that these actions are consistent with your WRMP

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

## **Set out what you'll do during a drought**

You must clearly and concisely set out everything that you plan to do during a drought.

## Say how you'll reduce demand

Your drought plan must set out what you'll do to reduce demand for water during a drought. For example you could:

- promote extra water efficiency
- encourage voluntary reduction of non-essential water use
- carry out initiatives to improve household water efficiency
- reduce mains pressure
- increase active leakage control
- temporarily restrict water use
- restrict non-essential uses of water using a drought order

Summarise what you'll do to reduce demand in a table in the following format. Include any other information needed to demonstrate and justify each of your actions along with how your actions fit in with your [communications plan](#).

How you'll reduce demand	Action 1	Action 2
What action you'll take, eg increase active leakage control		
Trigger for this action (or the preceding action that leads to this action)		
Saving in demand (in megalitres per day, unless stated otherwise)		
Saving in demand (% reduction on peak weekly demand)		
Location (the area affected or the whole supply zone)		
Implementation timetable (time from trigger to implementation, time of year and duration of actions)		
Any permissions needed or constraints that apply (include details of any contact you'll have with bodies responsible for giving permits or approvals)		
Risks associated with the action, eg effects on the environment, social and economic factors and uncertainties associated with timing, quantity, quality or cost		

Usually the most **efficient** way to reduce water demand is to carry out your actions across your company as a whole. You shouldn't need to reduce demand in areas smaller than WRZs.

## Restrict water use temporarily

Your plan must explain how you'll temporarily restrict water use during a drought. For example you could explain:

- the temporary restrictions you plan to carry out (eg drought orders), including the order in which they'll be carried out
- how you'll comply with the [Water Use \(Temporary Bans\) Order 2010](#)
- potential exemptions and concessions
- how you'll balance water savings against adverse effects on customers and businesses
- how much time you'll set aside for comment during the consultation period before using a restriction and how you'll deal with an unexpectedly large response
- how you'll tell customers, neighbouring companies and interest groups about the introduction, phasing in and lifting of temporary restrictions and how you'll keep this information up to date
- how you'll prove to customers, partners and the government that you've acted in a proportionate and reasonable way

You should consult the UK Water Industry Research (UKWIR) report '[Code of Practice and Guidance on Water Use Restrictions](#)' when considering how to temporarily restrict water use.

## **Estimate water savings you can make**

Your drought plan should explain how you arrived at your estimates for reductions in water demand. You should specify where your information comes from and highlight any uncertainties you've about your estimates.

## **Further advice on reducing demand**

When it is appropriate you can use these [UKWIR](#) publications to help you reduce demand and understand the savings you'll make :

- Estimating the water savings for baseline water efficiency activities
- Drought and demand: modelling the impact of restrictions on demand during drought
- Drought and demand: potential for improving the management of future drought
- [Understanding the impacts of drought restrictions](#)
- Drought demand modelling (for a copy of this contact the Environment Agency by phone on 03708 506 506 ([see call charges](#)) or by email at [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk))

## **Include how you'll maintain supply during a drought**

Your drought plan must set out what you'll do to maintain water supply during a drought. For example you could:

- re-commission unused sources of water that you still have licences for
- transfer water in bulk from other water companies or other WRZs
- use alternative sources, eg satellite boreholes that you've licences for

- lower pumps or deepen boreholes
- carry out engineering work, eg increase water treatment works or the distribution network capacity
- use other options - either temporary or permanent engineering works, eg desalination or tankering by lorries
- use drought permits and orders
- reschedule planned works to avoid outage

In order 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 estimate
- make sure your actions are consistent with the drought plans of any other water companies they affect
- set out the limits to the amount of water you can transfer from other companies

Summarise what you'll do in a table in the following format and include any other information needed to illustrate your actions.

How you'll maintain supply	Action 1	Action 2
What action you'll take (eg carry out engineering work)		
Trigger for this action (or the preceding action that leads to this action)		
Deployable output or yield of the action (in megalitres per day, unless stated otherwise), plus how you calculated it		
Location (area affected or the whole supply zone)		
Implementation timetable (time from trigger to implementation, time of year and duration)		
Any permissions you need or constraints that apply (include details of any contact you'll have with bodies responsible for giving permits or approvals)		
Risks associated with this action eg effects on the environment, social and economic factors and uncertainties associated with timing, quantity, quality or cost		

If your actions in a drought lead to infrastructure improvements that permanently increase water output, you should state this in the 'deployable output yield assessment' of your WRMP.

## Include details of drought permits and orders

[Drought permits and drought orders](#) allow you to increase water supplies during a drought. Drought orders can also be used to restrict use of water. Your drought plan

must include details of all the drought permits and orders **you might** apply for **under the full range of drought that you've planned for.**

Drought permits and drought orders are not for managing resources during natural disasters (eg flooding) or other emergencies (eg mismanagement or other infrastructure damaging events).

For each permit or order in your plan you should provide:

- details of what you'll do to reduce demand for water before you apply for a permit or order
- an [environmental assessment](#) showing the likely effects of the permit or order on the environment
- how you'll monitor potential environmental impacts (set these out in your environmental [monitoring plan](#))
- how you'll provide [mitigation](#) or compensate for any **adverse** effects
- **an assessment of the rainfall patterns that could cause the drought permit or order being required**

You must also be **able to justify why a permit or order is the most appropriate action if there are alternatives**, eg reactivating mothballed abstraction points

You should carry out as much preparation work as possible in advance of a drought event. Applications for drought permits and orders should, where possible, be ready to submit prior to being needed. You should regularly assess and update the information held in these applications to keep them current eg when you review your drought plan every year. This will help **process your permit application** more quickly and identify any problems in advance.

## **Say how you'll communicate during a drought**

Your drought plan should include a plan of how you'll communicate with customers, partners and other interested groups during a drought.

Your communications plan should identify how you'll:

- increase customer awareness of the limited availability of water during a drought
- keep customers, regulators and relevant organisations **eg local resilience forums, fire and rescue services and power plant operators** up to date about how a drought is developing, what you're doing to manage it **and how it might affect their supply.** You should include how you'll work with the [national drought group](#) in order to contribute to the cross sector view of drought issues.
- encourage customers to help during a drought by being more water efficient
- work with interested groups and partners to reduce demand for water during a drought

When planning communications with your customers you should consider the conclusions of the Consumer Council for Water's report '[Understanding drought and resilience](#)'.

Your plan should also set out:

- how your proposed communications activities are linked to drought triggers
- how you'll make sure these activities are **cost efficient for your customers**
- how you'll promote the positive work you're doing to manage the drought
- what information you've agreed to exchange with the Environment Agency or Natural Resources Wales during a drought - you should agree this during preliminary discussions before preparing your draft drought plan
- the different audiences that specific communications apply to, the main messages for these audiences and how you'll tailor and communicate your activities to each audience

You should also:

- **pay particular attention to communicating with customers about temporary water use restrictions or bans on non-essential use**
- consider how much time you'll need to carry out communications around increasing supply or controlling demand
- make sure your communications plan is consistent with your emergency plan - you may need to carry out additional communications activities to deal with emergency water supply situations and emergency drought orders

If the drought affects other water companies, you should work with them and the Environment Agency or Natural Resources Wales to share information and develop joint communications activities.

When you're planning your communications activities, you should consider the findings in the UKWIR report '[Drought and demand: potential for improving the management of future drought](#)'.

You should monitor and evaluate the effectiveness of your communications activities during a drought, eg through customer feedback, website traffic or a change in demand for water.

## **Your communications lead and management structure**

Your drought plan should set out the management structure you'll put in place during a drought. You should include a communications lead who will be in charge of carrying out the activities described in the communications plan.

Other suggested roles within a drought management structure include:



- drought manager
- public relations lead
- customer services representative
- technical staff

Include details of individual roles and responsibilities and any changes to the structure as a result of a worsening drought.

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

## State what you plan to do after a drought

Your drought plan should set out:

- the triggers you'll use to identify the end of a drought
- how you'll review the processes you've followed during a drought

A drought ends when:

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

You should use several indicators, rather than just one, to determine that a drought has ended. You can also use modelling to assess if there's still a risk from drought.

You should only declare the end of a drought after confirming with the Environment Agency and Natural Resources Wales that the water resource situation has returned to normal.

Your drought plan should set out:

- your process for stopping your drought management actions
- how you'll communicate this information to customers

## Reviewing your plan performance after a drought

Your drought plan should set out what you'll do to review your performance during and directly after a drought. You should identify in your plan what you'll release as a result of the review (eg a 'lessons identified' report) and give a clear timetable for the completion of these. Include any relevant milestones (eg data gathering stage or report writing stage).

You may need to review your drought plan, environmental assessments or monitoring plan based on this assessment. You'll need to understand:

- how successful, effective and cost efficient your drought management actions are (including the effects of restrictions to water use)
- the environmental effects of your drought management actions (use pre-drought, in-drought and post-drought monitoring data and appropriate analytical techniques)
- how effective any mitigation measures you carried out were
- whether your estimates of reductions in water demand matched actual reductions

If the environment is taking longer than expected to recover after the drought has ended, you should undertake staged reviews to reflect this delay.

You may also need to use the results of your review to update your WRMP where relevant. You'll need to understand:

- what actions are needed to maintain the sources you used during the drought eg investing in them or reassessing yields
- whether the drought triggers were effective at identifying when to implement actions
- if your demand management strategy needs revision following the drought
- whether any investments you made as a result of the drought will affect other plans or programmes

State how you'll work with the Environment Agency or Natural Resources Wales and any other people or organisations involved in the drought, during your review.

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## Page 4

# Drought plans: environmental assessment, monitoring and mitigation

From: [Department for Environment, Food & Rural Affairs](#)

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The environmental assessments, monitoring and mitigation or compensation measures you need to consider as part of a water company drought plan.

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3. [When you need to carry out environmental monitoring](#)
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6. [When to carry out strategic environmental assessments](#)
7. [Set out your mitigation and compensation measures](#)
8. [Contact](#)
9. [See more like this](#)

If you're [writing a drought plan](#) you must include:

- an environmental assessment of the effects that your planned actions will have on the environment
- an environmental monitoring plan
- details of any mitigation or compensation measures you'll carry out to lessen the effects of your actions on the environment

You'll also need to consider whether individual drought actions, groups of drought actions within your plan or your overall plan require:

- [habitats regulations assessment \(HRA\)](#)
- [strategic environmental assessment \(SEA\)](#)

## How to write an environmental assessment

Your environmental assessment must include details of any changes as a result of your actions to:

- water flow or level regimes
- water quality
- ecology (sensitive features, habitats and species)
- designated sites (habitats and species)
- fish populations (in particular migratory fish)

In addition to this you must include an assessment of the effect that your plan will have on [Water Framework Directive \(WFD\)](#) status or potential and consider the effects your actions might have on environmental objectives and measures set out in [River Basin Management Plans \(RBMPs\)](#). [Contact the Environment Agency](#) (and if relevant Natural Resources Wales) if you're unsure about the WFD assessment required for your plan or need more information on the objectives or measures set out in the RBMPs.

Your environmental assessment should also set out whether you'll do anything to lessen the impact of your actions on these features and if so what.

Where more than one action could have a combined effect on the environment you should consider their effects together (eg a group of licences in a particular habitat or designated site). You should also consider the effects your actions will have in addition to any other existing water users.

The level of detail included in your environmental assessment should be based on the level of risk posed by the action you're assessing (eg based on the scale of the impact, the expected frequency of use or the importance or sensitivity of the site).

You should use the ['Handbook for scoping projects: environmental assessment'](#) and the [EclA guidelines](#) to carry out your assessment.

Set out the results of your environmental assessment in a table like this:

Assessment	Action 1	Action 2
Action to maintain water supply		
Risk to the environment (high, medium, low or unknown) and how you've assessed this		
Summary of likely environmental effects (include details for features of moderate and major sensitivity and minor sensitivity features from designated sites). Assess the likely impact on WFD ecological and chemical status.		
information used to understand conditions before drought or any		

Assessment	Action 1	Action 2
drought actions are implemented		
A summary of additional monitoring requirements before your application		
Mitigation and compensation measures		
Effects on other activities, eg fisheries or industry		

## Carry out an environmental assessment

Your environmental assessment should:

1. Assess the hydrological or hydrogeological effects of your actions.
2. Assess the environmental sensitivity of the affected areas.
3. Identify any further evidence needed.

### Assess hydrological or hydrogeological effects

You must demonstrate that you understand the effect your actions will have on the hydrology or hydrogeology of every river reach, wetland or lake area that they influence. You should:

- identify hydrological or hydrogeological conditions which trigger your actions
- identify any hydrological or hydrogeological changes that your actions are likely to bring about specifying their length and severity
- describe the likely hydrological or hydrogeological conditions if you don't carry out your actions
- identify the extent of the area affected by your planned actions

### Assess environmental sensitivity and impact

You must assess the sensitivity of the habitats and species that are present in each reach or area affected by your actions. You should consider:

- their sensitivity to any hydrological or hydrogeological changes your actions are likely to cause - eg habitat loss due to level change or degradation of the habitat due to changes in dissolved oxygen content or temperature
- the extent to which your actions will affect the current WFD status for water bodies - (refer to the current [UK Technical Guidance Group method statements](#) to ensure you're using the correct assessment methods and tools)
- the risk of your action spreading [invasive non-native species](#)
- if your actions will affect any measures proposed in RBMPs
- the sensitivity of designated sites to your actions

- potential for cumulative effects (eg when combined with other actions in your plan or other abstractions likely to be taking place in that reach or area)

You must support your assessment using monitoring data and appropriate tools for analysing and interpreting the data. Each assessment will require expert judgement; you'll need more expert judgement where you've less data.

- environmental sensitivity eg if you need more information about a feature
- existing data, assessments, plans and other knowledge that may be relevant to the assessment
- whether your actions could have an effect on the movement of migratory fish
- uncertainties relating to the assessment and what is required from you

## Identify any further evidence needed

You must identify if there are any gaps in your understanding that you can fill by collecting specific further information. If there are then it's your responsibility to collect this information.

## When you need to carry out environmental monitoring

You must carry out further environmental monitoring if:

- you don't have enough data to carry out an environmental assessment
- your actions present a significant risk to protected habitats, species or designated sites and there is not enough monitoring in place to assess it

Environmental monitoring data supports:

- the overall drought plan including:
  - its environmental assessment
  - setting drought triggers
- environmental assessment of actions within a plan
- an environmental statement for an action (eg a drought permit or order)

You should plan to collect adequate data about the normal conditions at any sites your actions might adversely affect. You should do this as soon as is practical after the publication of your plan. Normal conditions are the conditions at the site that exist when a drought is not taking place or about to happen. This is when you're not undertaking any drought actions or mitigation at the site. During a drought you may implement or increase frequency of hydrological, chemical or physicochemical monitoring providing you've made it clear why you're doing this.

If you do need to carry out further monitoring you'll need to make an environmental monitoring plan.

# What to include in an environmental monitoring plan

Your environmental monitoring plan sets out all the monitoring you'll need to do for your drought plan. It should set out:

- how you'll use new monitoring data to fill gaps in your understanding of:
  - the environmental sensitivity of a site and the damage your actions may cause
  - the normal conditions at a site
  - the recovery of the environment after drought
- how you'll assess the effects of your actions during and after a drought

You can use data from sites that are subject to ongoing monitoring by the Environment Agency or Natural Resources Wales for other purposes eg WFD. However, there's no guarantee of the long-term availability of these data. When you update your drought plan you must check with the Environment Agency (and if relevant Natural Resources Wales) for changes to the availability of data that you may use. You must alter your monitoring plans accordingly.

You should also consider other potential sources of historic monitoring data such as county wildlife trusts, biological records centres and managers of relevant areas (eg designated sites).

The amount of work carried out should be in proportion to the environmental risk posed. This will be determined by the sensitivity of the environment, the likelihood of the action (or combination of actions) and its consequent severity.

## Write your environmental monitoring plan

You should present your environmental monitoring plan in a separate document alongside the environmental assessment.

You should discuss your plan as early as possible with the Environment Agency and, if appropriate, Natural Resources Wales and Natural England. They will be able to advise you on:

- availability of their historical monitoring data and ongoing monitoring programmes
- their understanding of the hydrology, hydrogeology, habitats and species at sites likely to be affected by your actions
- information on WFD status and programmes of measures
- environmental sensitivity of sites and areas
- the design of your monitoring plan

## When to carry out Habitats Regulations assessments

You must carry out an HRA under the Conservation of Habitats and Species Regulations 2010 if any actions are likely to have a significant effect on European sites such as:

- disturbing species or habitat
- damaging the size, structure or reproductive abilities of a species' population
- reducing the area's resilience against man-made or natural changes

The European sites are:

- special areas of conservation
- special protection areas
- Ramsar sites

An HRA will identify whether or not your actions will have an adverse effect on a site's integrity.

If you need to carry out a HRA, you should consult Natural England and the Environment Agency or Natural Resources Wales before you prepare your draft drought plan.

To carry out an HRA, use the UKWIR report '[Strategic environmental assessment and habitats regulations assessment: guidance for water resources management plans and drought plans](#)'.

## When to carry out strategic environmental assessments

You may need to carry out a SEA of your plan if the actions in it are likely to have a significant effect on the environment.

To identify whether you need to carry out an SEA, you can consult and use information from the HRA process. This guidance will help:

- [Practical guide to the strategic environmental assessment directive](#)
- [Strategic environmental assessment and habitats regulations assessment](#)

You should let the Environment Agency know if you need an SEA before you prepare your draft drought plan.



If you do need an SEA you must follow the practical guidance on carrying it out. Include a report on the likely significant environmental effects of your actions and the reasonable alternatives to them.

## Set out your mitigation and compensation measures

Your drought plan must set out everything you'll do to:

- mitigate or reduce **adverse** effects that your actions have on the environment
- provide compensation for **adverse** effects that remain after you've taken measures to mitigate them

From your environmental assessment, you can identify the effects of your proposed actions on the environment. In turn, you can then identify where you may need to carry out activities to mitigate adverse effects.

In your drought plan you must identify:

- pre-drought mitigation actions (these are actions you'll implement before or whilst the drought is developing to reduce the likely impact of your actions)
- in-drought mitigation actions (these are actions you'll implement during a drought to minimise the impact of your proposed actions)
- post drought mitigation actions (these are actions you'll implement following a drought to reduce any impacts you may observe as a result of your actions)

As a drought develops it is important to review your planned mitigation measures before implementing them as each drought is unique.

Discuss your proposed mitigation or compensation activities with the Environment Agency or Natural Resources Wales and any other affected parties. Your drought plan should also include details of any additional permits or approvals you need to carry out these activities.

## Contact

You can [contact the Environment Agency](#) (and if relevant Natural Resources Wales) if you're unsure about any aspect of the planning process and need further advice.

Environment Agency  
National Customer Contact Centre  
PO Box 544  
Rotherham  
S60 1BY

Telephone: 03708 506 506  
[enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)

Natural Resources Wales  
c/o Customer Care Centre  
Ty Cambria  
29 Newport Rd  
Cardiff  
CF24 0TP  
Telephone: 0300 065 3000  
[enquiries@naturalresourceswales.gov.uk](mailto:enquiries@naturalresourceswales.gov.uk)

Natural England  
Block B,  
Government Buildings,  
Whittington Road  
Worcester  
WR5 2LQ  
Telephone: 0300 060 3900  
[enquiries@naturalengland.org.uk](mailto:enquiries@naturalengland.org.uk)

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Published:

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From:

[Department for Environment, Food & Rural Affairs](#)

Part of:

[How to write and publish a drought plan](#)

## Send and publish a drought plan

From: [Department for Environment, Food & Rural Affairs](#) and [Environment Agency](#)  
First published: 20 July 2015  
Part of: [How to write and publish a drought plan](#)

How to send and publish a drought plan if you're a water company.

## Contents

1. [How to publish your drought plan](#)
2. [Revise and review your drought plan](#)
3. [Contact](#)
4. [See more like this](#)

Send:

- [your final drought plan](#)
- [your environmental assessment](#)
- [your environmental monitoring plan \(if you need one\)](#)

to the Secretary of State for the Environment, Food and Rural Affairs.

You must wait to hear back from the Secretary of State before you publish your plan.

You may need to hold a public hearing or inquiry if there are unresolved issues with your drought plan. The Secretary of State or the Welsh ministers will decide if a hearing or inquiry is needed.

## Publish your drought plan

Before you publish your plan you must:

- follow any statutory 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've received any statutory directions

You must publish the drought plan on your company website and in paper form. Send electronic copies of the plan to anyone you've consulted. Send paper copies if it isn't possible to send electronic ones.

You should also:

- make several paper copies available at your main office
- advertise the availability of paper copies on your website
- bring the drought plan to the attention of anyone else it's likely to affect

## Revise and review your drought plan

We encourage you to review your drought plan every year, along with your [environmental assessment reports and monitoring plan](#), regardless of whether or not there's been a drought.

You should also periodically run exercises to test your drought plan. The Environment Agency and Natural Resources Wales perform drought exercises to test their own plans and encourage others to join them. Contact them to find out more about taking part in joint drought exercises.

## Contact

Secretary of State for Environment, Food & Rural Affairs  
Drought Plan, c/o Water Resources Policy, Area 3D  
Nobel House  
17 Smith Square  
London  
SW1P 3JR  
[water.resources@defra.gsi.gov.uk](mailto:water.resources@defra.gsi.gov.uk)

Water Branch  
Welsh Government  
Cathays Park  
Cardiff  
CF10 3NQ  
[water@wales.gsi.gov.uk](mailto:water@wales.gsi.gov.uk)

Environment Agency  
National Customer Contact Centre  
PO Box 544  
Rotherham  
S60 1BY  
[enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)

Natural Resources Wales  
c/o Customer Care Centre  
Ty Cambria

29 Newport Rd  
Cardiff  
CF24 0TP  
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