

A photograph of a heron in a wetland at sunset. The heron is in profile, facing left, with its long neck curved. The background is a soft, golden glow from the setting sun, with reeds and water visible. The overall mood is serene and natural.

NORTHUMBRIAN
WATER *living water*

DRAFT DROUGHT PLAN 2022

CONSULTATION STATEMENT OF RESPONSE

September 2021

1 INTRODUCTION

This document is our Northumbrian Water draft Drought Plan 2022 Consultation Statement of Response.

We have updated our Drought Plan and invited statutory consultees, our customers and other interested stakeholders to comment on it.

The consultation on our draft Drought Plan took place over an eight week period which ended on 3 August 2021. The draft Drought Plan was available for review on our website www.nwg.co.uk/droughtplan.

Consultees were asked to send their written representations on our draft Drought Plan to the Secretary of State for Environment Food and Rural Affairs which were then forwarded on to us at the end of the consultation period.

This statement of response details:

- i. the consideration we have given to representations;
- ii. any changes that have been made or will be made to the draft Drought Plan as a result of consideration of those representations and the reasons for doing so; and
- iii. where no change has been made to the draft Drought Plan as a result of consideration of any representation, the reason for this.

If our responses to the consultation comments are accepted by Defra, they will be included in our final Drought Plan which should be published on our website www.nwg.co.uk/droughtplan during 2021/22.

2 CONSULTATION STATEMENT OF RESPONSE

2.1 Environment Agency Representation

The following table presents Northumbrian Water’s response to representation made by the Environment Agency on the Company’s draft Drought Plan 2022. We met with the Environment Agency on 14 July 2021 to discuss each of the recommendations and Improvement Actions.

Area of issue	Changes Required	NW Response
<p>Recommendation 1– undertake environmental assessment of prolonged use of the Kielder transfer</p> <p>Northumbrian Water’s draft drought plan includes prolonged use of the Kielder Transfer Scheme to ensure resilience in a severe drought. A possible extreme drought option of a transfer to Yorkshire Water is also included, which would also involve extended use of the Kielder transfer scheme. There are numerous priority species in the North Tyne and Tees catchments and long term transfers could have a detrimental effect on species and habitat. This could be intensified as its use will be at a time of high environmental stress. We recommend that Northumbrian Water undertakes an environmental assessment for this drought management action. In its statement of response, the company should set out its approach to the environmental assessment and include a work programme for completing it. The Environment Agency will work with the company under the Kielder operating agreement and will engage on the monitoring and investigation requirements of the assessment.</p> <p>Under enhanced use of the Kielder Transfer during droughts the company risk increased likelihood of</p>	<ul style="list-style-type: none"> ▪ Need to include details of a potential environmental assessment on the effects of the prolonged use of Kielder Transfers in a drought. Increased. 	<p>In order to maintain supplies to water treatment works, the potential for support from Kielder reservoir is utilised to varying degrees each year. As explained in the draft plan, as a drought develops, the use of Kielder increases with releases increasing in order to:</p> <ul style="list-style-type: none"> - maintain supplies; - guarantee the Minimum Maintained Flows (MMF) on the Rivers North Tyne, Tyne, Wear and Tees; and - provide compensation water for the River Derwent. <p>The release regime reflects flow variation and seasonality but the implications on the ecology of the various rivers of prolonged use of the transfer scheme in a drought is not currently understood.</p> <p>As part our WINEP commitments, we are undertaking an investigation into the effects on sedimentation in the North Tyne as a result of the current operation of Kielder Reservoir. We propose to build on this report and produce an</p>

Area of issue	Changes Required	NW Response
<p>biosecurity threats and transfer of INNS. The company should consider and document within the drought plan any biosecurity risks associated with its actions. The company should consider and document within the drought plan any biosecurity risks associated with its actions</p>	<p>Update the Drought Plan to cover Invasive Non-native Species (INNS) risks.</p>	<p>environmental assessment on the effects of extended use of The Kielder Transfer which will review the potential impacts on species and habitat in the catchments affected by its use.</p> <p>In the final Drought Plan, after discussion with the EA, we will set out the overall assessment approach and timeframe and working with the EA, who currently have ongoing local and national monitoring programmes, we will agree baseline monitoring requirements. Consideration will be given to alignment and overlap with any other scheduled environmental investigations and assessment work being undertaken through regional planning and WINEP. We have updated Section 11 to reflect this commitment.</p> <p>As part of our WINEP, we have undertaken an extensive review of potential transfer of INNS as a result of our operations. We will include a description of the risks associated with specific drought actions in our draft plan. We have updated Section 11 accordingly.</p>
<p>Improvement 1 – provide detail of groundwater operations and assessment</p> <p>It is not clear from the company’s draft plan whether the groundwater sources in the Kielder water resource zone (WRZ) will be reliable in drought conditions. The testing of these sources against drought scenarios and operational monitoring and triggers for increased or decreased abstraction are not presented. Without these in the plan, it is not clear that decisions will be</p>	<p>Include drought modelling results in the revised Drought Plan.</p>	<p>Groundwater modelling has been undertaken by Woods plc in order to identify the potential impact of 1 in 200 year and 1 in 500 year return period droughts. Section 5 and Appendix 2 of our Drought Plan have been updated to provide a description of the modelling and a summary of the results.</p>

Area of issue	Changes Required	NW Response
<p>taken at the appropriate time to protect the environment.</p> <p>The company should update its draft drought plan to include:</p> <ul style="list-style-type: none"> assessment of drought scenario resilience of groundwater supplies in the Kielder WRZ details of how groundwater source use may change in a drought details of decisions and actions that will be taken based on groundwater levels 	<p>Identified RAG trigger water levels for Sunderland sources with EA. These should be included in the revised Drought Plan.</p> <p>Include details of how sources will be used during drought</p>	<p>Groundwater Trigger Levels have been developed in consultation with the EA Groundwater Team (Newcastle) in order to identify when groundwater levels are at low (green), moderate (amber) or high (red) risk of exceeding calculated acceptable groundwater abstraction rates within the Magnesian Limestone aquifer system (which includes both the Magnesian Limestone and Permian Sand aquifer units).</p> <p>Section 5 of the drought Plan has been updated to include a description of the trigger levels and worked examples.</p> <p>The groundwater supply system in the Sunderland area means that groundwater from one part of the groundwater abstraction network area may be transferred to another area. Therefore, during a drought, if the groundwater resource at one borehole is reduced groundwater abstraction from another borehole, or from a surface water supplied WTW, may be increased to compensate for the shortfall.</p> <p>Section 2 of the Drought Plan has been updated to describe how sources will be used during drought.</p>
<p>Improvement 2 – clarify reasoning for drought trigger site selection in Kielder WRZ</p> <p>The company has not clearly explained why drought trigger sites in the Kielder WRZ have been chosen. Without explanation of the reasons for drought trigger site selection, it is not clear that the trigger sites ensure resilience at sources such as the Sunderland boreholes,</p>	<p>Provide clarification of reasoning for drought trigger sites in the Kielder Resource Zone.</p> <p>Explain how triggers are used.</p>	<p>The Kielder WRZ is a surface water dominated, complex, conjunctive use zone with the majority of sources being directly supported via the Kielder Transfer Scheme. The remaining sources in the Kielder WRZ are supported via Kielder due to our ability to transfer water around the potable network.</p>

Area of issue	Changes Required	NW Response
<p>which are unsupported by Kielder reservoir. This could mean that timing of actions is not appropriate to localised drought resilience issues, particularly for the Sunderland borehole sources.</p> <p>Northumbrian Water should demonstrate in its statement of response how the triggers in the Kielder WRZ ensure resilience of unsupported sources such as the Sunderland Boreholes. The company should show through testing how the new triggers protect availability at these sources under severe drought.</p>		<p>Drought trigger levels have been assigned to three drought indicator sources in the Kielder WRZ, namely:</p> <ul style="list-style-type: none"> ▪ Whittle Dene System (combined storage of Colt Crag, Little Swinburne, West Hallington and East Hallington); ▪ Derwent Reservoir; and ▪ Weardale System (combined storage of Burnhope, Waskerley, Hisehope and Smiddy Shaw) <p>These reservoirs were chosen as drought indicator sources as they best represent the resource availability in the Kielder WRZ. We have updated Section 5.1 of our Drought Plan to reflect the above points.</p>
<p>Minor Issues</p> <p>The Environment Agency identified a small number of minor issues which were not considered significant such that they were included in their formal representation.</p>	<p>All of the minor issues have been addressed in our revised draft Drought Plan.</p>	<p>Issue 1: Our policy is where practicable to support with the use of bowsers to provide a potable supply for domestic use and we would work with the relevant local authorities to understand the scale and location of any potential supply issues. Section 8.4 has been updated accordingly.</p> <p>Issue 2: In some smaller isolated areas, the only option to provide additional supplies in the event of spring yield falling and the relevant service reservoir level reducing is to tanker potable water into the service reservoir which ensures that tankering poses no biosecurity risks as there are no discharges to the environment. Section 8.2.3 has been updated accordingly.</p>

Area of issue	Changes Required	NW Response
		<p>Issue 3: Maps have been updated to include spring supplies in Kielder WRZ (shown as Minor WTW's). Berwick and Fowberry boreholes are now shown on the relevant plan.</p> <p>Issue 4: We believe this is covered in the draft plan and so no changes have been made.</p> <p>Issue 5: Additional text on use of rainfall data has been included in Section 4.2</p> <p>Issue 6: We have included the reasons for discounting options in table in Section 9.1.2.</p> <p>Issue 7: We have updated the Drought Plan to remove reference to Tabony Tables.</p> <p>Issue 8: We have added a sentence in Appendix 11 to conclude that there is a very low likelihood of requiring a Drought Order with regards to Scaling Dam.</p> <p>Issue 9: With regards to Kielder, as part of the Kielder Operating Agreement, releases from the reservoir are determined using the Kielder Operational Release Model which uses drought, dry, typical or wet factors to determine the releases made from the reservoir into the North Tyne. The releases are made to ensure the ecological health of the rivers North Tyne and Tyne. We have updated Section 8.3 accordingly.</p> <p>Issue 10: We have updated Section 2.5.1 to confirm that potable bulk supply agreements would not be affected during drought.</p>

2.2 Northumberland Council LLFA Representation

The following table presents Northumbrian Water's response to representation made by the Northumberland Council LLFA on the Company's draft Drought Plan 2022.

Area of issue	Changes Required	NW Response
<p>We acknowledge that the Drought Plan will be prepared for water management but does not set a framework for future development; however, the use of grey water recycling within future developments can be a key tool in water management. We recommend that this is brought out more with the Plan.</p> <p>At present Planning Practice Guidance recommends a drainage hierarchy for disposing surface water.</p> <p>Paragraph 80 states "What sort of sustainable drainage system should be considered?</p> <p>Generally, the aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably practicable:</p> <ul style="list-style-type: none"> - into the ground (infiltration); - to a surface water body; - to a surface water sewer, highway drain or another drainage system; or - to a combined sewer". <p>It is proposed that a new layer to the hierarchy is added which seeks development to reuse water install grey-water systems.</p> <p>This would help water retention on a micro-scale, but would provide benefits across the whole area. By having this on the drainage hierarchy it would require and encourage new developments to install such features.</p>	<p>Consider grey water recycling in future developments.</p>	<p>Our view is that grey water recycling is not a drought action in its own right and instead should be considered in our Water Resources Management Plan 2024. Therefore, no changes have been made to the Drought Plan.</p>

2.3 Wave Utilities Representation

The following table presents Northumbrian Water’s response to representation made by the Wave Utilities on the Company’s draft Drought Plan 2022.

Area of issue	Changes Required	NW Response
<p>As a large Retailer in the open market we continue to review the part we can play in relation to water resources and drought management to ensure we can add real value.</p> <p>The market codes detail the supporting role that Retailers play during a drought event, primarily as a communication channel to non-household customers on the run up to and during an event. We are confident that when called upon we can fulfil these requirements and would support the roll out of messages on our website and social media platforms and, where required to do so, targeted communication with specific customers.</p> <p>We would like to encourage Water Companies to consider a more proactive approach to drought management with advanced communications on summer demand ahead of any drought level triggers. In particular we would like to encourage the closer working of Water Company’s Wholesale functions and Water Resources teams. This would allow the key drivers from drought plans to be delivered in a way that is consistent with the open market.</p> <p>As the party that now holds the direct relationship with the non-household customer base we believe Retailers can play a key part in the promotion of voluntary restraint during a drought event but believe that early preparation and advance communication will facilitate this.</p>	<p>In addition to the reactive communication role that Wave will play in a drought event, it would like to encourage a more proactive, targeted approach that will ensure maximum non-essential demand reduction when required.</p>	<p>We are pleased to work with Wave and other retailers and welcome the proactive targeted approach that Wave has asked for. We have set out how we will communicate with Retailers in the communications section of our draft Drought Plan.</p> <p>We have developed with Anglian Water and Wheatley Solutions a web based application called Watersource. Watersource comprises a number of modules, one of which is to show the current drought status (e.g. no drought, environmental drought, water resources drought and whether level 1, 2 or 3 drought actions are live) in all water company water resource zones. Currently, Watersource covers, Essex & Suffolk Water, Northumbrian Water, Anglian Water, Cambridge Water, Hartlepool Water and Yorkshire Water although the ambition is for it to cover all water companies in the future. We believe that this will be a useful tool for sharing information with Wave and other retailers.</p>

Area of issue	Changes Required	NW Response
<p>Wholesalers should identify the customers or supply areas that may need this intervention during non-drought times to allow Retailers to draw up plans with these customers in a less reactive manner. These plans could be captured in Site Specific Arrangements that are again supported by the market codes and could set out steps that could be taken should a drought occur.</p>		

2.4 Northumberland Council Representation

The following table presents Northumbrian Water’s response to representation made by the Northumberland Councils Planning Policy Team on the Company’s draft Drought Plan 2022.

Area of issue	Changes Required	NW Response
<p>From a planning policy point of view, we welcome the document as another limb to our preparedness for the effects of climate change, as well as the growing demand for water from our communities and industries.</p> <p>We are reassured that the measures set out will ensure that, in all but the most extreme situations, a full and continued supply is assured including in the slightly more limited Berwick / Fowberry resource area.</p> <p>The contents of the document accord with the policy on water supply in the emerging Northumberland Local Plan and we look forward to continued working with Northumbrian Water, DEFRA and other relevant agencies as we work on implementing the Local Plan and on further planning policy documents.</p>	<p>No changes required.</p>	<p>No changes required.</p>

2.5 Historic England Representation

The following table presents Northumbrian Water’s response to representation made by Historic England on the Company’s draft Drought Plan 2022.

Area of issue	Changes Required	NW Response
<p>Planned Growth: In the course of your operations we trust that you will consult the historic environment records held at each County Council and seek the necessary advice from the relevant local authority conservation officers to ensure the impacts on heritage assets are avoided or mitigated.</p>	<p>No change required.</p>	<p>We confirm that in the course of our operations, we will consult the historic environment records held at each County Council and seek the necessary advice from the relevant local authority conservation officers to ensure the impacts on heritage assets are avoided or mitigated.</p>
<p>Consultees: Page 7 Historic England is now statutory consultee rather than English Heritage.</p>	<p>Change references to English Heritage to Historic England.</p>	<p>We have changed references from English Heritage to Historic England.</p>
<p>Heritage Assets: We are concerned that potential impacts on the historic environment are not explored in the Drought Plan. There is no mention of heritage assets or the historic environment throughout the Plan which is disappointing, for example at Chapter 11.</p>	<p>No change required.</p>	<p>Our supply side drought actions are in relation to ensuring Minimum Maintained Flows (MMF) conditions in our abstraction licences are complied with ensuring MMF in rivers are maintained. These MMF’s are designed to eliminate areas of water stress during periods of increased abstraction. In addition reservoir rule curves dictate our drought actions with the intention of minimising the effects on that environment. We do not consider that these actions would have any effect on the historic environment. Additionally, we do not</p>

Area of issue	Changes Required	NW Response
<p>Strategic Environmental Assessment: Page 88 11.3 we note the outcomes and agree with the conclusions that the Drought Plan does not fall within the remit of the SEA Directive and therefore does not require an sea to be undertaken and an Environmental Report to be prepared.</p>	<p>No changes required.</p>	<p>have any supply side drought actions that would involve any development.</p> <p>No changes required.</p>