ESSEX&SUFFOLK WATER *living water*

DRAFT DROUGHT PLAN 2018

CONSULTATION STATEMENT OF RESPONSE

February 2018

1 INTRODUCTION

This document is Essex & Suffolk Water's draft Drought Plan 2018 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 17th December 2017. The draft Drought Plan was available for review on our website www.eswater.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 to Essex & Suffolk Water at the end of the consultation period.

This statement of response details:

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

If ESW's responses to the consultation comments are accepted by Defra, they will be included in the Company's final Drought Plan which should be published on our website www.eswater.co.uk\droughtplan during 2018.

2 CONSULTATION STATEMENT OF RESPONSE

The following table presents Essex & Suffolk Water's response to representation made by the Environment Agency and Essex County Council on the Company's draft Drought Plan 2018. These were the only responses received during the consultation period.

2.1 Environment Agency Response

Area of issue	Changes Required	ESW Response
Recommendation 1 – Point 1.1: Provide a clear timeline of the sequence of actions the company would take in a range of drought scenarios	We recommend that Essex and Suffolk Water provides a range of worked examples that sets out its triggers, timeline and sequence of actions under a range of historic and synthetic drought scenarios of different magnitudes and durations.	In our draft Drought Plan, we stated that we were undertaking additional drought modelling that would inform our PR19 draft Water Resources Management Plan (dWRMP) but that it would not be completed in time for consultation of our draft Drought Plan. However, we made a commitment in the draft Drought Plan to update it with the results of the PR19 dWRMP modelling once completed. The drought modelling has now been completed. In addition to our previous worst droughts on record (1933/34 for Essex) and 1976 and 1995-97 for Suffolk), we have also considered a synthetic drought with a return period of 1 in 200 years. Both the worst historic drought on record and the 1 in 200 year drought modelling concluded that a supply surplus would still be maintained without the need for drought actions (that would need drought permits or drought orders). We have since undertaken further analysis of our worst droughts on record. This analysis has been undertaken using a method provided by the Environment Agency and has concluded that each of these droughts already has a return period of 1 in 200 years on average or greater. The results of the above modelling and analysis has been incorporated into Section 9 (Drought Scenarios and Drought Plan Testing) of our revised draft Drought Plan. As recommended by the Environment Agency, we have:

Area of issue	Changes Required	ESW Response
		1. presented a worked example which illustrates: - rainfall deficits; - when we would setup our Drought Management Group; and - when we would implement level 1 (appeal for restraint) and level 2 (temporary use ban) drought restrictions. 2. considered the duration and severity of each drought (see Section 9.2 of the revised Drought Plan). In terms of extent, we have considered drought by county. 3. considered which drought actions we would implement and when (see Section 9.2 of the revised Drought Plan). The order that drought actions would be implemented is described in Section 6.1 (Drought Measures Overview) and Section 8.1 (Supply Side Measures)
Recommendation 2 – Point 2.1: Ensure drought orders and permits are application ready and have the necessary environmental assessments	The company should clarify whether its permits or orders are application ready and what is required to get them to this status.	For ESW's 2013 Drought Plan, the Company prepared drought action environmental reports for each of the supply side drought actions that would require a drought permit. All of the reports were prepared in consultation with the Environment Agency and Natural England. These reports were all updated in 2017 and confirm the drought action, the mechanism by which the drought action could effect the environment, an assessment as to whether the drought action could cause a significant adverse effect on the environment and the mitigation and monitoring that would be employed to ensure the drought action would not have a significant adverse effect on the environment. They also include an environmental monitoring plan which sets out baseline, drought and post drought environmental monitoring. The Environment Agency made the following recommendations in its response – our response is provided below: **i. The Company should set out what information will be included in a drought permit / order application in the environmental assessment reports**

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		As agreed with the Environment Agency (meeting on 22 January 2018), the drought action environmental report would be submitted in full with any future drought permit application. This includes all baseline environmental monitoring data and analysis of that data. The draft Drought Plan (Section 10.1.2) has been updated accordingly to clarify this point. While it is clear from the Drought Plan appendix which supply side drought actions will require a drought permit or drought order, this is not clear in the Drought Action Environmental Reports. ESW will update them to confirm this point by 30 June 2018. **ii. provide evidence of discussions the company has had with organisations responsible for permits and approvals required in a drought or arrangements for these discussions when the measures are needed** The original 2013 drought action environmental reports were prepared in consultation with the Environment Agency and Natural England and were not subject to any improvement actions. ESW has reviewed and updated the environmental reports for the draft Drought Plan 2018. The Company has subsequently had two meetings with the Environment Agency as follows: - 17th January 2018: To review the Environment Agency's consultation response; and - 22nd January 2018: To review each of the drought actions to establish whether they should all stay in the Drought Plan (i.e. is it likely that the drought action could be permitted), whether the Environment Agency has any further information; and whether any further updates of the environmental reports are required. The Environment Agency confirmed that the drought actions to

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		stop the Sandon Brook, Hundred River, Sizewell Stream and Hall Farm Stream compensation discharges are unlikely to be viable. Consequently, the revised draft drought plan has been updated so that these drought actions are to reduce the discharges rather than stop them. It should be noted that these drought actions would only ever be considered for the most extreme of droughts. ESW agreed with the EA to undertake modelling (using the EA's regional model) to confirm the environmental effect of the Redgrave Group, Bedingfield and SAGS drought actions, all of which are to increase the annual licensed quantities. The modelling and update of each of the associated environmental reports will be completed by 31 December 2018. ESW also agreed to complete a baseline ecological survey of Wortham stream and meadows during 2018. iii. **provide details of triggers for discussing drought orders/permits.** ESW has undertaken analysis of worst historical droughts on record, all of which have a return period of greater than 1 in 200 years (see Section 9.2 of revised draft Drought Plan). Our PR19 draft WRMP confirms that we can meet customer demand during a drought with a return period of 1 in 200 years without the need for implementing supply side drought actions which would require a drought permit. Consequently, we have proposed a trigger for discussing drought orders / permits with the EA based on the lowest groundwater levels observed in the design drought years. Section 5.3 of the draft Drought Plan has been updated accordingly. The approvals that would be required from other organisations for each supply side drought action are already covered in the draft Drought Plan and in the individual drought action environmental reports.

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Recommendation 3 – Points 3.1 – 3.4: Trigger definition, testing and phasing of actions	Provide further information on: i. the phasing of drought triggers and the use of reservoir control curves; ii. the viability of demand management options; iii. setting up the Drought Management Group; iv. how the communications plan, level of service and demand savings are aligned.	i. We have: a. updated the Drought Option Summary Forms in the Drought Plan Appendix to clarify either the trigger or proceeding action. b. updated Sections 8.1 and 8.2 of the Drought Plan to clarify the potential order in which we would implement supply side drought actions. We have also updated Section 5.2 of the draft Drought Plan to clarify drought actions associated with the Essex reservoir control curves (i.e. calling on Ely Ouse Essex Transfer Scheme support). ii. In terms of the viability of drought management options, the Environment Agency has asked that the implementation period for temporary use bans be reviewed. ESW has updated the implementation period in the Drought Action Summary form located in the Drought Plan Appendix which is now consistent with the text in Section 7.8 in the main Drought Plan report. iii. Section 5.1 has been updated to confirm that the DMG will be formed before implementing all drought actions except Appeals for Restraint. The Environment Agency has asked for an exact trigger for setting up the Drought Management Group. No single trigger can be used to decide when the DMG is formed. Droughts are complex mixtures of low rainfall depleting resources and hot, dry conditions increasing demand. The two types of event often do not occur simultaneously. In recent dry periods the droughts have been caused by very low autumn / winter rainfall not replenishing stored and ground water supplies, whilst the intervening summers have tended to be much cooler than usual and often much wetter. As already described in Section 3.2 of the Drought Plan, the trigger for forming the group will be based on ambient supply and demand conditions, and will be particularly influenced by when resource monitoring starts to indicate a potential worsening of hydrological conditions,

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		particular in terms of key indicators such as reservoir storage and pumping groundwater levels. iv. The phasing of drought actions has been clarified in Sections 6.1 and 8.1 in the revised draft drought Plan. ESW believes that it is already clear (Section 3.2 in the Drought Plan) that the Drought Management Group are responsible for making recommendations to the Executive Leadership Team and Board regarding the implementation of drought actions. The EA has commented that Section 6.1 makes reference to there being limited scope for "...enhanced demand management". This text goes on to specifically state that this is in relation to additional water efficiency promotion, leakage control or pressure reduction which are maximised in our "business as usual" working. However, an appeal for restraint is clearly an option that will deliver demand savings and is our first drought action (i.e. it can be implemented without forming the Drought Management Group).
Recommendation 4 – Issues 4.1 and 4.2: Information on environmental requirements and supply options	Confirm whether the environmental assessment reports contain sufficient information to support applications for drought permits and orders and include the proposed format and details of drought permits and orders.	We have confirmed in the Drought Action Summary Forms in the Drought Plan Appendix the frequency (using return periods) of supply side drought permits and orders which might be required to maintain supplies. We will update the environmental reports with the same information by 30 June 2016. In summary, we would not need to implement any supply side drought actions that would require a drought permit or order unless the there was an exceptional shortage of rainfall that is caused by a drought that has a return period of greater than 1 in 200 years. This is based on modelling completed for our draft Water Resources Management Plan and also further analysis on the return period of historical droughts. We have confirmed in Section 9.4 that the likely case for an exceptional shortage of rainfall would be based on a drought with a 1 in 200 year return period. This is because we maintain a supply surplus through a drought with a return period of 1 in 200 years.

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		We have clarified in Section 10.1 of the drought plan the process we would follow when applying for a drought permit as well as what our plan is for being "permit application ready". This is in line with the process on .gov: https://www.gov.uk/government/collections/apply-for-a-drought-permit-drought-order-or-emergency-drought-order. In terms of being permit ready, it is important to note that the information required to justify why a permit may be required can only be completed once in drought. For example, evidence of an exceptional shortage of rain can only be demonstrated once rainfall deficits have been confirmed. We have updated the draft Drought Plan to indicate the proposed format of drought permits and orders. The Environment Agency's drought plan consultation response states that the draft plan does not comment on the recent changes to abstraction licences resulting from the Review of Consents process. We do not believe that it is necessary to do this as the changes to the abstraction licences are legal requirements, have become part of business as usual and would not be impacted by any of the drought actions. However, we have now updated the draft drought Plan (see Section 10.6.2) to summarise what these changes are (i.e. a requirement to make a compensation discharge into the River Alde and onto Geldeston Meadows and a requirement not to abstract below an abstraction cessation level in the Norfolk Broads), and that the Drought Plan does not include changes to these as a supply side drought action. ESW confirms that these licence conditions had already been taken into consideration in the Habitats Regulation Assessment for the 2013 Drought Plan. As such, the HRA remains a valid assessment. The Environment Agency has highlighted that a number of ESW's groundwater licences are subject to sustainability investigations which will be undertaken between 2020 to 2025. It states that ESW should ensure that the drought actions

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		proposed are still available in light of the sustainability investigations and that the Habitats Regulation Assessment remains valid. As the investigations will not be started until 2020 and any licence changes will not be made until 2025, ESW propose that the results of the investigations are considered in the next update of this drought plan in 2023.
Issue 4.3: Executive Summary	Add a section to the Executive Summary on Level 4 restrictions and supply side drought permits and orders.	Two sections have been added to the Executive Summary covering level 4 demand restrictions and drought permits and orders.
Issue 4.4: Frequency of supply side actions	Frequency of supply side options	The draft Drought Plan (Section 8.1 and 8.2 and the Drought Action Summary Forms in the Drought Plan Appendix) have been updated to confirm the frequency of supply side measures. The frequency of needing supply side drought actions would be greater than 1 in 200 years on average (see Section 9 of the Drought Plan). This is because all of ESW's Water Resources Zones have a supply surplus during a drought with a return period of 1 in 200 years.
Improvement 1 Provide Justification for the Likelihood of emergency Drought Orders (Stand Pipes and Rota Cuts)	Provide further information on Level 4 Levels of Service.	Further information on Level levels of service has been included in section 7.11 of the draft Drought Plan.
Improvement 2 Drought	The Company could provide further	ESW believes that the roles, responsibilities and governance of the Drought Management Group is sufficiently described in Section 3 of the Drought Plan.

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Management Group Structure	information on the responsibilities and governance of the Drought Management Group.	
Improvement 3 Communications Plan	Reference to regional teams. Drought end triggers	References to regional EA teams in the communications plan have been changed to area. Section 12.1 has been updated to confirm that the Environment Agency would be consulted to obtain their view on drought recovery (rainfall deficit, river flows, groundwater levels etc) before ESW removes any restrictions. Section 12.2 has been updated to confirm that the EA would be included in any future Post Drought Review. Section 3.3 and 3.4 have been updated to confirm that communications between water companies takes place through regular National Drought Communications Group meetings to ensure messages are aligned.

2.2 Essex County Council

Area of issue	Changes Required	ESW Response
Section 3.3 External Partners	Include Essex County Council LLFA as an interested party.	We have updated Section 3.3. to include Essex County Council as an interested party.
Section 8.6 Water Conservation Measures (Water Efficiency)	Rainwater harvesting in the forms of water butts should be encouraged and greywater recycling in	A key component of Essex & Suffolk Water's water efficiency strategy is the offer of water butts to domestic customers to promote rainwater harvesting. On an annual basis, customers in towns targeted as part of ESW's Every

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	commercial properties.	Drop Counts programme are offered a free water butt through the home water and energy saving retrofit visits. Outside of this programme, customers are able to purchase water butts at low prices through a partnership between ESW and a water butt supplier. This scheme is permanently available and advertised on the website and various literature. Additionally, on an annual basis ESW deliver a gardening campaign that raises the awareness of water efficient gardening (including the promotion of water butts) through media and events. In periods of drought, ESW would widen and further promote these activities. Following retail separation, it is expected that greywater recycling will form part of the water efficiency offering by retailers. Section 8.6 of the drought plan has been updated accordingly.
Section 8.6 Water Conservation Measures (Water Efficiency)	The discharge hierarchy should be enforced to encourage groundwater recharge. Where possible storage areas should be created so that in times of heavy rainfall or flooding, water can be directed to these storage areas and then slowly released, or kept in the storage for times of drought.	ESW supports sustainable drainage as there are benefits in terms of groundwater recharge and surface water quality. However, as a water supply only company, we do not regulate such activities.