

1. INTRODUCTION

This note has been prepared to update Water Forum members on the development of our PR19 Water Resources Management Plans (WRMPs) for Essex & Suffolk Water (ESW) and Northumbrian Water (NW).

The WRMPs are being prepared following the Water Resources Management Plan (England) Direction 2017, Defra's Guiding Principles for Water Resources Planning (May 2016) and the Environment Agency's (EA) Water Resources Planning Guideline (April 2017).

The WRMPs have a planning horizon from 2020 to 2045 and show how we intend to maintain the balance between supply and demand over the next 25 years. A series of tables support the plan and provide our forecasts of demand, supply and other parameters over this period.

As required by the Guideline, we have held preliminary discussions with neighbouring water companies and statutory consultees including the Environment Agency (EA) and Ofwat.

We will submit our WRMPs to the Secretary of State on 1 December 2017 and will consult on them in early 2018 following direction from Defra.

2. ABOUT OUR NEW WATER RESOURCES MANAGEMENT PLAN

2.1 Levels of Service

Levels of service are expressed in terms of expectations about the frequency of restrictions on water use during dry years, and set out the standard of service that customers can expect to receive from us.

Our current and proposed planned levels of service are presented in the table below.

Drought Action	Frequency			
	ESW Current LoS	ESW Proposed LoS	NW Current LoS	NW Proposed LoS
Appeal for restraint	1 in 10 years	1 in 10 years	1 in 20 years	1 in 20 years
Phase 1 Temporary Water Use Ban	1 in 20 years	1 in 20 years	Never	1 in 250 years
Phase 2 Drought Order Ban	1 in 50 years	1 in 50 years	Never	1 in 300 years
Rota Cuts	Never	1 in 250 years	Never	1 in 500 years

Our customer research has shown that there is no desire amongst ESW customers to pay more for increasing the return periods for a Phase 1 Temporary Water Use Ban (i.e. hosepipe ban) and so we intend to keep our planned levels of service for Phase 1 TUBs the same as they are in our current ESW WRMP14.

We have previously stated "never" as a level of service for some restrictions. However, the EA expect water companies to always state a level of service for all restrictions on water use during drought going forwards. These levels of service have still to be confirmed although are likely to be no more frequent than 1 in 250 years on average for Rota Cuts in Essex and 1 in 250 years, 1 in 300 years and 1 in 500 years for the Phase 1 and 2 TUBS and Rota Cuts respectively for NW.

Ofwat and the EA have introduced a new requirement for PR19 which is for all water companies to report their supply demand position for a drought with a 1 in 200 year return period. The Water Resources Long Term Planning Framework project considered a 1 in 200 year drought scenario and concluded that for NW that there would be sufficient water supplies. For Essex, the EA already consider that our design drought year of 1933/34 (the year we plan against) already has a return period of greater than 1 in 200 years. Our Suffolk groundwater resource zones are also thought to be very resilient to

drought based on our experience of the droughts in the 1990s. However, we are currently in the process of running models to confirm the effect of a 1 in 200 year drought on ESW's groundwater sources.

2.2 Demand Management

Our approach is to build a significant base-load of demand constraining measures into the demand forecasts from the outset covering leakage, metering and water efficiency. This is a continuation of the twin track approach the Company has always pursued by incorporating significant demand management at the heart of our water resource planning strategy.

Leakage

We are proposing some challenging leakage targets for AMP7. These are as follows:

NW

2020-2025: Proposing 15% reduction compared to 2016/17 under new converged method.
2025-2045: 3Ml/d reduction per AMP (still under consideration)

ESW

2020-2025: Proposing 17% reduction compared to 2016/17 under new converged method
2025-2045: 2Ml/d reduction per AMP (still under consideration)

By 2045, leakage will be equivalent to 9% of DI matching customer expectations.

Metering

For Essex, customer research confirms there is no customer mandate to introduce compulsory metering. However, we propose to change from a selective metering strategy (i.e. covering ~5,000/annum on change of occupier) to a "customer choice" optant metering strategy covering ~8,500 properties/annum during AMP7. We will install meters in empty MSM chambers and then charge customers as unmeasured but give them equivalent measured bill for a period of two years – they can then choose whether to switch to metered billing. We have agreed this in principle with CCWater.

For Suffolk and Northumbrian Water, we plan to continue with our current optant metering strategy.

Target optant numbers for Essex, Suffolk and Northumbrian Water are summarised in the table below.

AMP6 Optants			2017/18	2018/19	2019/20
Essex			5450	7950	9450
Suffolk			800	800	750
NW			15500	15500	15500

AMP7 Optants	2020/21	2021/22	2022/23	2023/24	2024/25
Essex	9000	8750	8500	8250	8000
Suffolk	675	650	600	550	500
NW	14000	14000	14000	14000	14000

AMP8 Optants	2025/26	2026/27	2027/28	2028/29	2029/30
Essex	7750	7500	7250	7000	7000
Suffolk	450	400	300	200	100
NW	14000	14000	14000	14000	14000

Water Efficiency

Our aim is to maintain an industry-leading position with respect to our water efficiency work. We plan to be more ambitious by up-scaling our projects including:

- Every Drop Counts – whole-town approach to delivering water efficiency.
- Home water and energy saving retrofits cornerstone of strategy.

We plan to maintain focus on measurement, research and innovation and develop a digital engagement platform to engage customers to adopt behaviour change at scale and give customers more control over their water use.

2.3 Supply

AMP7 Water Industry National Environment Programme (WINEP)

We have been consulted by the EA on the inclusion of investigations, options appraisal and implementation schemes with drinking water and environmental drivers. For NW, the NEP will focus on the implementation of a scheme to ensure the sustainability of abstraction from the Fell sandstone in the Berwick Water Resource Zone. This is likely to mean the construction of two new boreholes to spread the effect of abstraction thus minimising overall drawdown of groundwater levels.

For ESW, the NEP will focus on the sustainability of abstraction from the Chalk and Crag aquifers. All Suffolk abstractions are currently included in the WINEP for investigation and options appraisal in AMP7. Delivery of our WINEP obligations is mandatory given it is a regulatory obligation.

Set up of Water Resources North Group

Defra and Ofwat want water companies to take a long-term, strategic approach to protecting and enhancing resilient water supplies. Water Resources South East (WRSE) and more recently Water Resources East (WRE) were setup to fulfil this objective. We are represented on both groups although have been particularly active on the WRE group. It is clear that there is a need for Water Resources North (WRN) given the surplus of water Kielder provides and the potential for it to improve the resilience of neighbouring water companies' water supplies. A start up meeting was held in September 2017 with Yorkshire Water, United Utilities and the EA where terms of reference for the group were discussed and agreed in principal.

Abstraction Incentive Mechanism (AIM)

The objective of Ofwat's AIM is to encourage water companies to reduce abstraction from environmentally sensitive rivers and lakes when they are under stress by switching some or all of that abstraction to a less sensitive alternative point of abstraction. Once flow or water level has fallen below a pre-agreed threshold (with the EA), abstraction at the sensitive site should then be reduced so that it is less than a pre-agreed baseline – the baseline normally being what was abstracted over the same time in a previous dry/drought year. The reward is likely to be based on a 1.2 factor being applied to short run marginal costs incurred by having to abstract from a more expensive site. We already have an AIM scheme for Ormesby TWs in Norfolk although it is a reputational (league table) one rather than a financial penalty or reward. We believe that we should continue with an Ormesby AIM scheme in AMP7. We also think there is an opportunity to have an AIM scheme for the Hallington/Whittle Dene system in the north east. We are currently in the process of agreeing a shortlist of AIM schemes with the EA after which we will then consult the customer forum.

3. SUPPLY DEMAND BALANCE

We are still finalising all of the numbers for our Water Resources Management Plans. However, we are currently forecasting a Final Plan water supply surplus in all of our Water Resource Zones. Consequently, over and above our demand management strategies which are built into our demand forecast, we do not plan to develop any new water supply schemes.

4. PRE-CONSULTATION QUESTIONS AND COMMENTS

If you have any questions or comments that you would like to make regarding our current or new draft WRMP, please email william.robinson@nwl.co.uk or martin.lunn@nwl.co.uk

5. PURPOSE

Members are asked to:

Note that:

- Both WRMPs have been compiled in accordance with WRMP Guidelines.
- It is expected that all Water Resource Zones will have a supply surplus over the 25 year planning horizon.

Understand:

- Whilst note all components have been finalised no material changes are anticipated.

Consider whether we have:

- Engaged with customers on metering and leakage targets.
- Taken their views in to account.