DRAFT DROUGHT PLAN
(Revised)

August 2021

Albion Water Limited

www.albionwater.co.uk

Document control sheet

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Contents

1 Introduction

1.1 About Albion Water

Albion Water was licensed by the Water Services Regulation Authority (Ofwat) in 1999 and was the first new entrant to operate across the UK. Legally, Albion Water has the same powers and responsibilities as any other incumbent water company in England and Wales, including the requirement to produce a Drought Plan.

Through the NAV (New Appointment and Variation) process, Albion Water currently provides water supply and sewerage services, including sewage treatment, to customers living in new developments in Gloucestershire, Hampshire and Essex and Kent.

1.2 Albion Water's Drought Plan Process

New Appointments and Variations (NAVs) have the same duties and responsibilities as other water companies to produce a Drought Plan as stated in Legislation. The preparation and maintenance of a Drought Plan is a statutory duty.

Section 39B of the Water Industry Act (1991) states:

1. It shall be the duty of each water undertaker to prepare and maintain a Drought Plan.
2. A Drought Plan is a plan for how the water undertaker will continue, during a period of drought, to discharge its duties to supply adequate quantities of wholesome water, with as little resource as reasonably possible to drought orders or drought permits.

A drought is defined as a prolonged period of abnormally low rainfall, which has the potential to lead to a shortage of water. A Drought Plan will therefore allow a water undertaker to operationally plan and put measures in place to minimise the risk and impacts of periods of water scarcity.

Albion Water has drafted this Drought Plan in order to comply with the Drought Plan Directions which were updated by Defra in 2020 and by following the process as detailed in Figure 4 in Appendix A.

This Drought Plan details the response Albion Water will take in the event of a drought in order to manage our customers supply to meet our agreed levels of service, as stated in our Water Resources Management Plan 2019.

This Drought Plan has also been prepared through consultation with a variety of stakeholders in accordance with the Environment Agency Guidelines (as detailed in Section 1.3 and Section 1.4).

1.3 Pre-consultation

Prior to drafting and publication for consultation of our Drought Plan Albion Water consulted Defra, The Environment Agency, Natural England, Ofwat and incumbent water companies as part of writing the Drought Plan.

1.4 Consultation

In accordance with the Environment Agency (EA) guidelines, this Drought Plan was published for public consultation, inviting views from:

- Defra
- Environment Agency
- Natural England
- Ofwat
- Consumer Council for Water
- Drinking Water Inspectorate
- Thames Water
- Essex and Suffolk Water
- Gloucester County Council
- Cotswolds District Council
- Essex County Council
- London Borough of Redbridge

All written representations will be taken into account in the final Drought Plan. All amendments made to the Drought Plan will be detailed in our Statement of Response (SoR) document.

We sent our Drought Plan to Defra on 29th March 2021 and after they conduct the appropriate security checks, we will then publish our Drought Plan on our company website and distribute it to our statutory consultees. We have 15 weeks from the date of publication to produce our Statement of Response and we are allowing 8 weeks for public consultation.

2 Albion Water sites

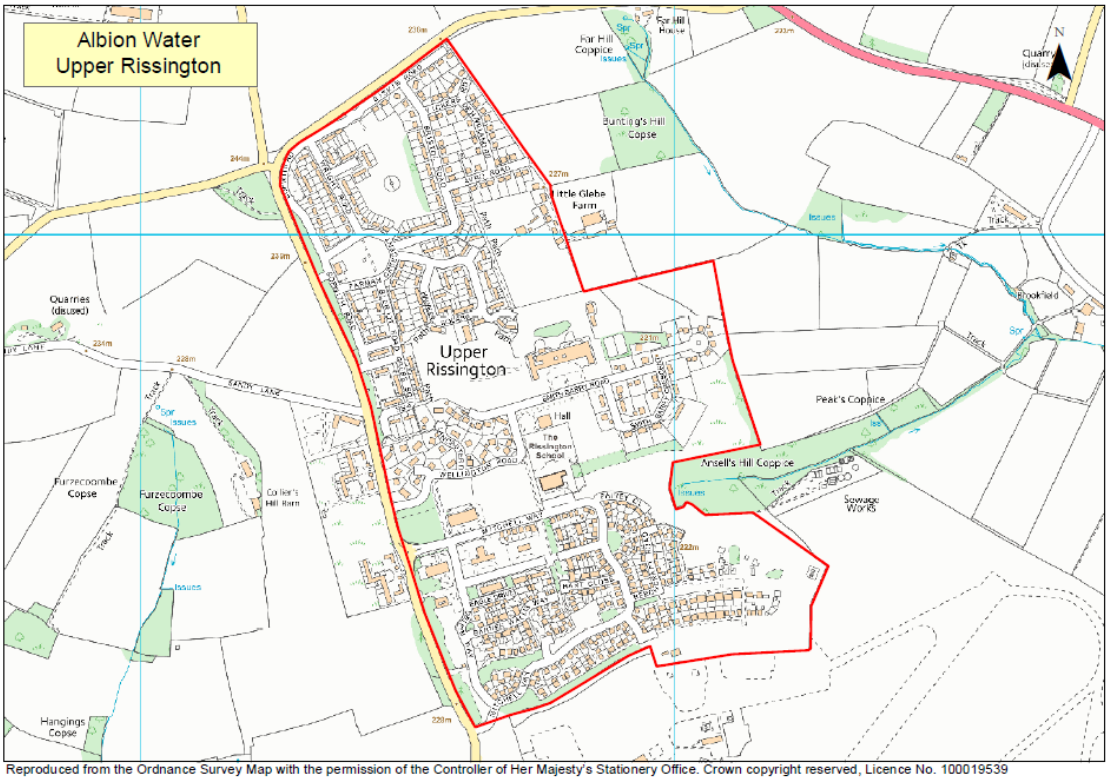
2.1 Upper Rissington – Gloucestershire

Upper Rissington is an ex-RAF base which is in the Thames Water area for water supply and sewerage as shown in Figure 1. The site has 350 existing homes in an area called Upper Rissington Village and 368 new build houses in an area called Victory Fields. It was purchased by Linden and Bovis Homes in 2012. Albion Water was contracted to provide full water and sewerage services to the entire site as well as operation of the on-site sewage works.

Post appointment and after adopting the assets, Albion Water successfully reduced leakage to customers in Upper Rissington village by investigating and fixing leaks within the existing network.

The current bulk supply agreement with Thames Water allows for a maximum daily supply of 307m^3 per day to be taken from the bulk supply point. Thames Water infrastructure is capable of suppling at least three times this volume to the bulk supply points, if ever required.

Figure 1 The area of the Upper Rissington NAV

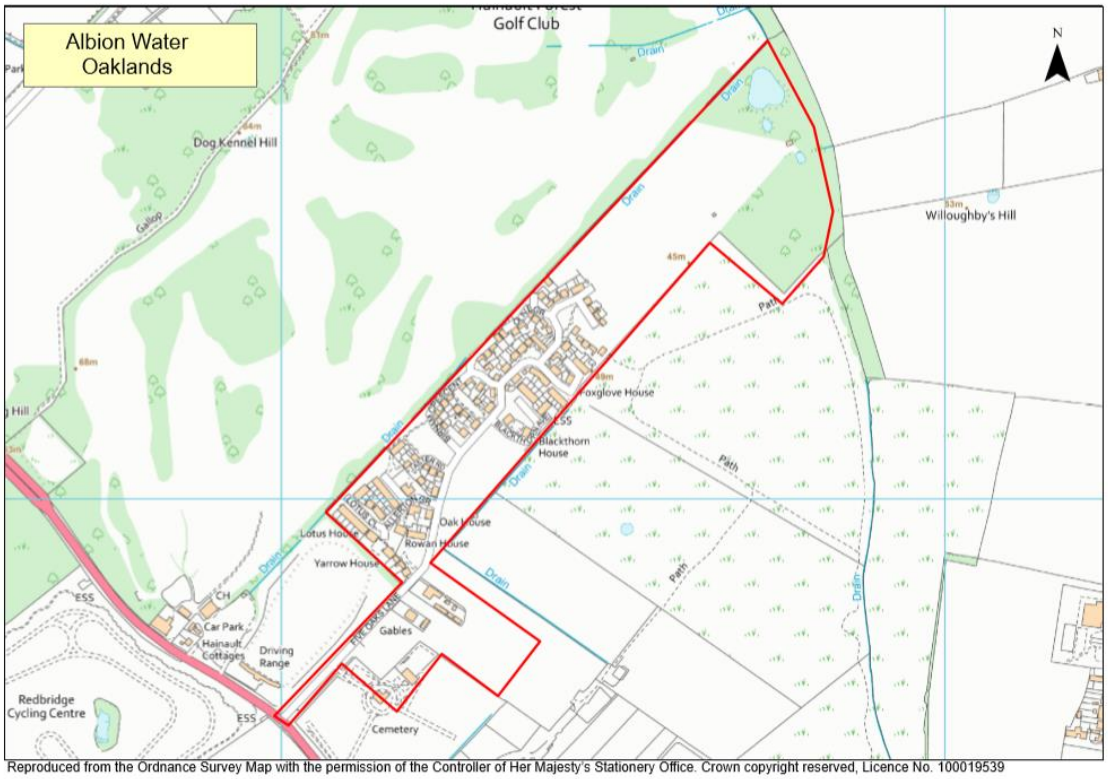


2.2 Oaklands Hamlet – Essex

Oaklands Hamlet[1] was an area in Essex & Suffolk for water supply services and Thames Water area for wastewater services. The brownfield site was redeveloped by Countryside Homes and consists of 425 new homes and 25 acres of public open space.

Countryside approached Albion Water to provide water and sewerage services due to the challenging demands associated with developing the site and connecting to the nearest incumbent services.

Figure 2 The area of the Oaklands Hamlet NAV



These new houses all have a dual supply, connected to a non-potable supply of greenwater which will eventually be sourced from highly treated effluent water derived from the on-site sewage works. The greenwater feeds the toilets and outside tap in each house and customers pay a reduced tariff for this water. We routinely inspect the plumbing in each house to prevent cross connections and incoming pipes are fitted with double check valves for extra security.

We have constructed a small sewage works in a corner of the new development which will treat all of the wastewater from the site. From that final effluent we intend to take a small proportion and retreat it and that will provide the non-potable greenwater for toilet flushing and external use. The non-potable greenwater treatment system is currently in construction phase and not yet commissioned.

[1] Please note: Oaklands Hamlet is now the agreed name for this site in Chigwell, Essex. The current Albion Water WRMP (published in 2019) calls the site Five Oaks Lane which was what it was previously called, but the developer and Albion Water now call this site Oaklands Hamlet and the WRMP will subsequently be changed when the plan is updated.

The sewage works was designed with spare treatment capacity (headroom), so it is capable of accommodating times of higher flows and demand.

The current bulk supply agreement with Northumbrian Water (the parent company of Essex & Suffolk Water) allows for a maximum annual supply equivalent to 85m^3 per day to be taken from the bulk supply point. The agreement also states that Northumbrian Water is able to accommodate reasonable variations (increases) from this amount. Essex & Suffolk Water have confirmed that a greater volume than stated in the current agreement would be available under this clause of the agreement to be agreed with ongoing dialogue and regular communication between water companies.

CASE STUDY: Water supply resilience during Corona virus and Lockdown 2020.

A common question is the resilience of the water supply from the incumbent company during times of peak demand. At both sites we have informal agreements with the incumbent water company that they will be able to meet volumes higher than those stated on the bulk supply agreement. Exactly how much more is not known but will rely on open and ongoing communication between Albion Water and the incumbent water company.

During the Corona virus and associated Lockdown due to Covid 19 and the global pandemic this led to real life scenario testing. We experienced unusually high peak demand at both sites which we comfortably met.

No-one could have foreseen the unusual conditions of Lockdown during the spring of 2020. Lockdown meant that everyone was at home, all day, everyday week after week. This coupled with hot dry warm weather and an increase in handwashing, personal washing, gardening and the purchase of large swimming/paddling pools saw a spike in demand beyond our bulk supply agreements as explained in more detail in Section 2.3.

2.3 Bulk Supply Agreements

At both of our sites, we have exceeded our bulk supply agreements. A global pandemic and lockdown with a significant increase in hand washing and home gardening in 2020 was going to be the ultimate scenario testing. The demand during the first lockdown was a worse case scenario when everyone was at home all day every day. An increase in handwashing, increase in general washing and cleaning and a huge increase in gardening and home improvements meant a higher than expected demand. This demand was met during the whole period and with ongoing communication between Albion Water and the incumbent water companies we had a good understanding of their water resource situation. this was regularly reviewed.

We are now discussing with both incumbent companies to renegotiate our contractual agreements and increase the volume stated in the bulk supply agreements. We feel confident that in the face of unprecedented conditions our bulk supply is resilient and robust.

Oaklands Hamlet
Maximum annual volume: 31,000 m^3
Annual volume 2018: 17,023 m^3

Annual volume 2019: 28,555 m^3
Annual volume 2020: 41,112 m^3

Upper Rissington
Maximum annual volume: 112,000 m^3
Annual volume 2018: 107,844 m^3
Annual volume 2019: 75,349 m^3
Annual volume 2020: 153,469 m^3

The increase in volume at Oaklands Hamlet also reflects the build programme as more properties are built and connected to the network.

During a drought Albion Water has been assured that the volumes specified in the bulk supply agreements will be delivered as the bulk supply agreements are contractual obligations for the incumbent to deliver. Albion Water is effectively a domestic customer of the incumbent water company in perpetuity. Albion Water will mirror the drought triggers and actions of the incumbent company and if any restrictions are put in place then Albion Water will likely do the same to ensure a consistent message of wise water use is encouraged throughout. During the lockdown the demand was met and no demand side water saving advice was necessary.

2.4 Accounting for greenwater

As previously explained new properties at both of our sites have been built with a dual supply system which will allow non-potable water uses to be met with greenwater. Non-potable uses are toilet flushing and garden watering which equates to ~30% of total daily household demand. The greenwater is derived from wastewater effluent which has undergone high levels of further treatment including filtration, UV treatment and chlorination. If there was any problem or outage with the non-potable treatment system, then a backup of potable water would successfully meet the demand.

Albion Water champions water recycling as the most reliable way of reducing per capita consumption below 100 litres per person per day. However, this source of water is also reliable and resilient and will not be affected under drought conditions as 70% of total daily household demand will end up at the sewage works and from this the greenwater will be sourced.

In any water recycling scheme, the water is used twice, that is what recycling means, but it is only consumed once. This is common to other forms of water recycling which reduce per capita consumption such as individual property grey water units and using bath or sink water to flush toilets or to water the garden. What is unusual about the Albion Water system is that we can accurately gauge the extent of this reduction in per capita consumption as although not currently constructed and commissioned, both systems have individual household meters on them. The newly constructed homes have a dual supply distribution system and recycled water feeds the system for toilet flushing and garden watering.

Our Water Resources Management Plan states that a key purpose of providing the recycled water is to provide additional resilience during times of dry weather and drought. However, currently the dual

system is currently supplied with potable water and therefore imposing restrictions would be guided by the bulk supply water company and the Environment Agency[2].

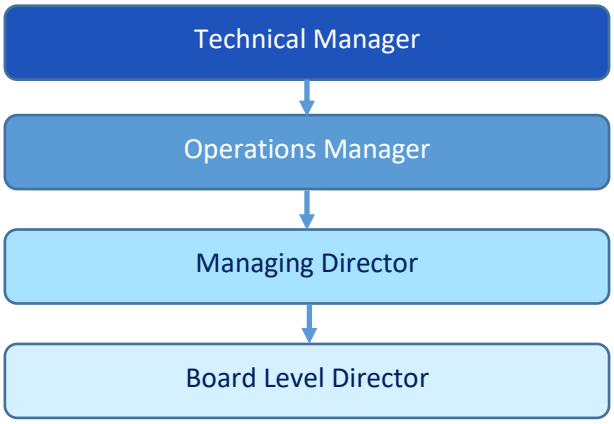
3 Drought Management and Drought Triggers

3.1 Identification of a Drought and formation of a Drought Management Team

During normal conditions Albion Water hold regular liaison meeting with our NAV Manager. The water resource status is an item on the agenda at all of these meetings and so the identification of a drought will be identified early. As we do not have our own water sources we rely on this important water resources information cascading down to us from the incumbent water company. The Technical Manager will have responsibility for this and will determine when a Drought Management Team (DMT) needs to be formed.

Drought measures will then be implemented in the order presented in Table 2 as determined by the DMT following the triggers listed in Table 1**.** The DMT will act as the hub of the drought management process. The DMT has responsibility for reviewing the water availability (from the incumbent water company) and our customers demand and then deciding whether and when drought measures should be implemented, and when they should be subsequently withdrawn (further explained in Section 0). Drought management actions will be managed by the Drought Management Team and the levels of escalation are shown in Table 2.

Figure 3 Organogram of escalation of Drought Management Team



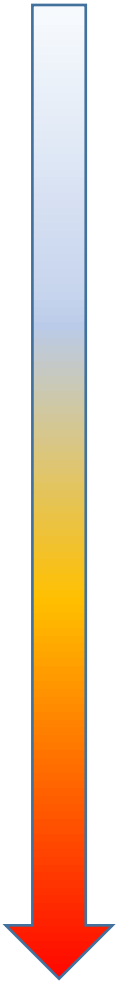
The Drought Management Team will meet as follows;

- Level 1 – Developing Drought: Every two weeks
- Level 2 – Drought : Weekly
- Level 3 – Ongoing Drought: Daily
- Level 4 – Severe Drought: Continuous in Emergency Meeting Room.

[2] Our WRMP states that we will impose restrictions in a 1 in a 200 year drought event. We will in fact mirror the actions of the incumbent water company and impose restrictions (TUBS) as they do. This will be updated in the WRMP24.

Since Albion Water will mirror the incumbent water supplier our triggers are detailed in Table 1 and the implementation of these will be based on liaison with The Environment Agency, DEFRA and the incumbent water companies. The specific details of the incumbents triggers are listed in Section 5.

Table 1 Albion Water Drought Triggers



Level	Drought action summary
Level 1 Developing Drought	Drought trigger: Communication with incumbent water company and Regulators (EA, DEFRA) about possible water shortages Drought measure: Intensive water efficiency campaign and implementing enhanced leak detection across the network Responsibility – Technical Manager DMT meetings – Fortnightly
Level 2 Drought	Drought trigger: Communication by incumbent water company that they have reached their trigger for a Temporary Use Ban Drought measure: Imposing a Temporary Use Ban (hosepipe) Responsibility – Operations Manager DMT meetings – Weekly
Level 3 Ongoing Drought	Drought trigger: Communication by incumbent water company that they have reached their trigger level for a Drought Order Drought measure: Drought Order (Non-Essential Use Ban) Responsibility – Managing Director DMT meetings – Daily
Level 4 Severe Drought	Drought trigger: Communication by incumbent water company that they have reached their trigger level for an Emergency Drought Order Drought measure: Emergency Drought Order for rota cuts and/or standpipes Responsibility – Board Level Director DMT meetings – Continuously in Emergency Meeting Room

Should these triggers be met, we will increase communication with the incumbent water companies to ensure clear, timely communications are relayed to our customers. Drought actions will be identified and implemented before a major resource difficulty occurs. Such actions will be reviewed on a regular basis in response to daily reporting of the resource situation with the incumbent water company. Our drought strategy is to reduce demand in the early stages of drought, initially through enhanced dry weather messaging through our respective media channels.

3.2 Drought Stages

Table 2 details the drought actions that Albion Water will implement when the triggers are reached in the event of a developing drought. As an increasingly extreme drought event develops, different actions, timings and personnel will become involved. At all times frequent communication with the

incumbent water companies will be paramount. The personnel identified as having responsibility for each stage will have the authority to make the decisions to implement the drought measures at that stage. The DMT can be consulted at any time should support be required.

Table 2 Albion Water Drought stages and actions

Level	Strategy, responsibility and escalation level
Level 1 Developing Drought	- Implement a water efficiency campaign advising customers of possible water shortages and appeal for restraint. Promote water efficient devices. This will be via letter drops and via social media avenues. - Implement a programme of enhanced leak detection across both networks and monitor the nightlines to deduce effectiveness. - Liaise with incumbent water company about possible water shortages. Ensure frequent communication is planned on a weekly basis. - Advise the Environment Agency of the current situation. - Increase demand management activities. Investigate areas of high per capita consumption and increase active leakage control across the entire network. - Consultation and pre-planning on the potential implementation of a Temporary Use Ban (TUB) in line with incumbent water company approaches. We will not impose a TUB before our incumbent. Drought Management Team (DMT) – Technical Manager
Level 2 Drought	- Full media campaign to reflect the severity of the ongoing drought. - Impose a Temporary Use Ban in line with the incumbent water company position 21 days after Notice has been published. - Ongoing water efficiency and advice campaign with customers using all forms of social media, letter drops and local radio and television. The full media campaign will appeal for ongoing restraint and to impel compliance with the TUB restrictions. - Ongoing discussions with incumbent water companies about the current water shortages and the consistent messages conveyed to customers. Communication at this point will still be on a weekly basis but at this point can agree to increase to a twice weekly basis. - Advise the Environment Agency, Consumer Council for Water and Defra of the current situation and any other stakeholders. DMT – Technical Manager and Operations Manager
Level 3 Ongoing Drought	- Full media campaign to appeal for ongoing restraint and to impel and encourage compliance with the TUB restrictions to our customers. - Increased frequency of advising the Environment Agency, Consumer Council for Water and Defra of the current situation and any other stakeholders. DMT – Technical Manager, Operations Manager and Managing Director

Level	Strategy, responsibility and escalation level
Level 4 Severe Drought	Implementation of Emergency Drought Order for Rota Cuts and Standpipes. DMT – Technical Manager, Operations Manager, Managing Director and Board Level Directors

4 Communications during a Drought

Our Drought Mitigation Strategies are twin track;

1. Communications with the incumbent water supply water company to ensure our drought actions are aligned and information relayed to customers is consistent,
2. Communications with our own customers to help them reduce their water consumption.

As Albion Water relies on a bulk supply import for our water supply from the incumbent water companies, the timing and implementation of our drought and communication strategies will largely be driven by theirs. Albion Water will liaise closely with the incumbent water companies (Thames Water at Rissington and Essex & Suffolk Water at Oaklands Hamlet).

4.1 Communication with Incumbent Water Companies

The two incumbent water companies have different drought triggers, drought actions and Levels of Service as detailed in Section 5. During normal conditions Albion Water hold regular liaison meeting with our respective NAV Manager. The water resource status is an item on the agenda at all of these meetings and so the identification of a drought will be identified early. The Technical Manager will have responsibility for this and will be the first point of contact from the DMT.

During drought conditions it will be important to liaise with the incumbent water companies to understand how the drought measures are being implemented. Early engagement with incumbents is essential so that key messages are aligned and consistent. When Albion Water are informed that the incumbent water company is planning a media campaign to inform customers of the drought and call for restraint, we will start liaising directly with their Drought Management Team to ensure a consistent approach. We will also ask the incumbent water company to share any useful data and information from their analysis of the effectiveness of their drought measures.

4.2 Communication with Customers

Once we have entered a period of prolonged dry weather, we will ensure that we inform our customers, retailers, regulators and other stakeholders

- How a drought is developing
- What we're doing to manage it
- How it might affect their supply
- The actions they can take to help reduce water use

As a drought takes hold, we will increase our engagement with customers and other stakeholders to raise their awareness of our water resource position and also the impact of water use on the environment.

Albion Water operates with two incumbent water companies; Thames Water and Essex & Suffolk Water. Due to each operating area having a different level of service and therefore may be experiencing different drought measures it will require careful management. It will be important to manage communications with our customers, especially if different customers are experiencing different drought measures, e.g. if restrictions in one area but not the other. The Technical Manager will liaise with PR who will closely and carefully manage the messages Albion Water release.

In the first instance we will utilise our company website to communication general generic wise water use to our customers and to call for restraint. We will also use email, text messages, mail drops and social media to encourage conserving water.

ALBION WATER CUSTOMER COMMUNICATION STRATEGY

As a small water company Albion Water has the advantage of being able to have a presence on the ground to interact with our customers. Unlike larger water companies as the severity of a drought increases, we can be on site to convey the importance of wise water use to our customers. As a NAV operating in different areas we do however have the challenge of targeting the right message to the right customers.

Albion Water will be creative with our social media channels and use agile communications to interact with our customers. As the severity of a drought continues, we will adopt innovative enhanced communication strategies to engage with our customers to encourage wise water use and water efficient practices in the home.

4.2.1 Targeting specific NAV areas

Albion Water's customer database is set up with an identifier about which NAV area the customer resides in. The billing system will inform us about which NAV area the customer resides in and we can use the postcode when sending out the letter drop as this is guaranteed to reach every customer.

Albion will use this identifier to send out targeted emails, text messages to specific geographic areas informing them about regional events and incidents. When using social media we will use #OaklandsHamlet, @OaklandsHamlet or #UpperRissington, @UpperRissington so it is clear if it is a targeted message rather than a general drought one. For messages on the website this will also clearly state what postcodes the message refers to.

4.2.2 Monitoring the effectiveness of Drought Communications

We will monitor and evaluate the effectiveness of our communications activities during a drought by tracking the daily demand for water and through customer feedback via our website and social media channels. This information will be used to refine our messaging and also to help develop more effective communication plans for future drought events.

5 Levels of Service

Albion Water's drought management approach is largely controlled by those of the incumbents from which we receive a bulk supply of water.

The contracts with Essex & Suffolk (Oaklands Hamlet) and Thames (Upper Rissington) both require Albion Water to at least match the restrictions they impose on their customers in the area in the event of a drought. We have asked both companies to confirm their policies on restrictions and these are set out below.

Whilst not undermining what we have stated in our WRMP about the resilience our non-potable dual supply system, an escalating drought is an unusual operational event. As such Albion Water will mirror the actions of then incumbent water company and impose restrictions as they do as which is a requirement of our bulk supply agreements.

5.1 Upper Rissington

Thames Water Drought Plan and WRMP are based on the flowing principles;

- The need to maintain security of supply for Thames Water's customers
- The level of restrictions imposed on customers is commensurate with Thames Water's Levels of Service (LoS).

The planned Levels of Service for water supply restrictions adopted by Thames Water are set out below in Table 3. This table reflects the most recent LoS as detailed in their draft Drought Plan published for consultation in June 2020. Indicative timescales for implementing each drought measure are given in Table 4 and we will mirror these.

Table 3 Thames Water Levels of Service

Restriction Level	Frequency of Occurrence	Water Use Restrictions
Level 1	1 year in 5 on average	Intensive media campaign
Level 2	1 year in 10 on average	Temporary Use Ban and enhanced media campaign
Level 3	1 year in 20 on average	Non Essential Use Ban (NEUB) requiring the granting of a Drought Order and Drought Permits *
Level 4	Never (in reality this equates to 1 in 100 years on average)	If extreme measures (such as standpipes and rota cuts) were necessary, their implementation would require the granting of an Emergency Drought Order

[* Note – these would be applied for in a staged manner]

Table 4 Indicative timescales for Drought Measures

Measure	Time to implement (weeks)			
Intensive media campaign	2			
Temporary Use Ban (TUB)		3		

Measure	Time to implement (weeks)			
Non Essential Use Ban (NEUB) and Drought Permit (DP)			10	
Emergency Drought Order (EDO)				10
Elapsed time (weeks)	2	5	15	25

5.2 Oaklands Hamlet

In their Drought Plan, Essex & Suffolk Water state that every drought is different in the sense that rainfall may be very low at different times of the year (e.g. a dry winter or a dry spring). High demand for water in a hot summer may follow on from a dry winter or a wet winter. Depending on how these different factors come together determines what drought actions Essex & Suffolk Water adopt and when to implement them.

Table 5 details the Levels of Service Essex & Suffolk operate within as stated in their draft Drought Plan published for consultation in June 2021.

Table 5 Essex & Suffolk Water Levels of Service

Restriction Level	Frequency (return period)	Frequency (percentage)
Level 1 - Appeal for restraint	1 in 20 years	0.05 (2%)
Level 2 - Phase 1: Temporary water Use Ban	1 in 150 years	0.0066 (0.66%)
Level 3 - Phase 2: Drought Order Ban	1 in 200 years	0.005 (0.5%)
Level 4 - Pressure Reduction	1 in 250 years	0.004 (0.4%)

Essex & Suffolk Levels of Service are presented as both a return period (e.g. 1 in 10 years) and as a percentage (e.g. 10%). For example, their Level of Service for an Appeal for Restraint is 1 in 20 years on average, or a 5% chance. This does not mean that an Appeal for Restraint will be made with such regularity; for example, a 1 in 20 year drought event may occur 3 times in 20 years and then not again for another 40 years. Essex & Suffolk state that they are currently meeting all of their Levels of Service and have never needed to introduce Level 2, 3 or 4 restrictions. Table 6 details the likely trigger levels for their Level of Service.

Table 6 Essex & Suffolk Water Levels of Service Trigger Levels

Level of Service	What this means	Trigger Level
Level 1 - Appeal for restraint	Ask our customers to use water wisely. For example, watering plants at night and not watering the lawn because grass is resilient to drought	Set 5% above the drought zone, this is approx. 9 days of storage above the drought zone
Level 2 - Phase 1: Temporary water Use Ban	Applies mainly to the domestic use of water and stops the use of a hosepipe or sprinkler for any garden watering or cleaning	Set 5% above the emergency storage level, this is approx. 9 days of storage above the emergency storage level.

Level of Service	What this means	Trigger Level
Level 3 - Phase 2: Drought Order Ban	Expands what has been applicable to the domestic customer under the Temporary Use Ban, to non-domestic or commercial customers.	Set at the emergency storage level, this is approx. 30 days of storage above the dead water level
Level 4 - Pressure Reduction	A temporary reduction or nil supply of water at the customer tap and use of stand pipes to fill containers.	Set at the dead water level, therefore level 4 restrictions will not be part of any DO calculations.

6 Drought Measures

6.1 Normal Operation (Business as usual)

Albion Water has a Statutory obligation to always encourage our customers to use water wisely and give advice on water saving tips around the house and in the garden. Albion Water has such advice on the website[3].

In addition, general demand management measures are undertaken by Albion Water including leakage management and metering.

6.2 Drought Monitoring

The Drought Management Team (DMT) has responsibility for reviewing the water availability (from the incumbent water company) and our customers demand. Initially, at the start of a drought, this will be done on a weekly basis. As a drought worsens the frequency of this analysis will increase to twice weekly and then daily. This analysis will inform which drought measures should be implemented and when.

This analysis also to review the effectiveness of our Drought Plan measures in real time as the drought is occurring and secondly to assess if the drought is still going on.

The effectiveness of each drought measure should be evident from analysing a combination of data sources and information. The bulk supply meter has a logger on it and so we will know what the distribution input is. Most or our customers are on a meter (both potable and non-potable) and so from reviewing these smart meter volumes this we will know what demand is and be able to infer the impact of our drought measures.

This collated information will inform future drought plans and test current assumptions e.g. demand savings associated with temporary use bans and the impact of different water efficiency campaigns.

[3] https://www.albionwater.co.uk/customer/my-water/saving-water

In addition to analysing our own data we will share with the two incumbent companies to see if their experience is the same and to learn from each other.

6.3 Water Efficiency Media Campaign

Following a period of sustained dry weather and with agreement of the incumbent water company and Environment Agency that we are operating under drought conditions, then our first drought measure to implement is to increase the level of water efficiency messages to encourage wise water use. We will convey strong messages to help then by reduce their water use which will help the environment. This is especially important as Albion Water is unable to adopt and supply side measures during a drought.

As the majority of Albion Waters properties are metered customer consumption from meter reads will be monitored to identify high users and/or possible leakage problems. Education, advice and raising awareness of using water wisely will be an ongoing activity throughout this phase to all of our customers. As explained previously in Section 4, we have the challenge of potentially having to convey different messages to different customers in different NAV areas. Our strategy to manage this is explained in there.

All customer service staff are trained on how to advise customers on water efficiency and direct them to further information online about how they can control their own usage.

6.4 Increased Active Leakage Control (Find and Fix)

Typically, during prolonged periods of hot dry weather there will be an increase in leakage. This is largely driven by the soil moisture deficit and the ground moving as the soil contracts which causes mains to move sometimes resulting in a fracture, leak or burst.

As a small NAV we don't have an extensive water supply network, but once the first drought trigger has led us to start delivering water efficiency advice to our customers, we will at the same time check the nightline of both bulk supply loggers on a daily basis so we can identify any increase in leaks. If there is a noticeable increase in distribution input the we will do a sweep of both areas (Oaklands Hamlet in Essex and Upper Rissington in Gloucestershire) to identify leaks. Any leaks detected will then be fixed and the nightline will continue to be observed as a daily activity. This is mostly to ensure that we are practising what we preach and our own water losses are at an absolute minimum.

6.5 Temporary Use Bans

As a drought escalates Albion Water will look to apply for a Temporary Use Ban (TUB) (formerly called a Hosepipe Ban) in line with the incumbent water company. This restricts customers from using a hosepipe or sprinkler.

Albion Water assumes an additional demand reduction of 5% (cumulative with the 7% saving made from an appeal for restraint) is estimated in response to a temporary use ban. This is based on evidence from previous hosepipe bans and also accounting for the temporary use ban including all hose pipe use (not just domestic gardens). This 5% saving does however assume there are no exemptions to the TUB. These assumptions are based on Thames Water and Essex & Suffolk Water

demand savings in their Drought Plans which were based on the analysis of data collected during the 2003 drought[5].

6.5.1 Powers Used

The ability to impose restrictions on customers come from the following powers;

- Section 76 of the Water Industry Act 1991, as amended by Section 36 of the Flood and Water Management Act 2010 and,
- The Water Use (Temporary Bans) Order 2010, which is a statutory instrument providing definitions of words and phrases and certain exceptions to the categories of water use in Section 76 of the WIA 1991 (as amended by the FWMA 2010)

6.5.2 Consultation on Temporary Use Bans (TUBS)

According to the WIA 1991 Section 76B(2) to implement a Temporary Water Use Ban (TUB) a company must adopt the following procedure;

"Before the period for which a prohibition is to apply the water undertaker must give notice of the prohibition and its terms;

a. in at least two newspapers circulating in the area to which it is to apply, and

b. on the water undertaker's internet website"

The notice of prohibition must set out clearly the terms and extent of the proposed prohibition and specify the date on which the prohibition will commence and the area to which the ban will apply. Albion Water must also provide details of how customers can make representations about the proposed prohibitions to us and leave a reasonable period for the representations to be made.

Albion Water considers a reasonable period to be 21 days from when the Notice of the prohibition is posted on our website. This time period allows the advertisement of the ban to appear in the local newspapers, which may only be published weekly, and 14 days for representations to be made as a result of the newspaper advertisement. This also aligns with both Thames Water and Essex & Suffolk Waters policies. Albion Water will apply at the same time as the incumbents do.

6.6 Drought Orders

As a drought escalates (Level 5 Drought Actions) then further restrictions will have to be implemented. These are far rarer and will always only be imposed after a Temporary Use Ban has already been in implemented.

6.6.1 Drought Order – Non Essential Use Bans (NEUB)

The next step would be to implement Drought Order Bans which is an extension of a Temporary Use Ban to non-domestic or commercial customers. These bans have economic consequences for businesses and have to be used as sparingly as possible.

Albion Water will mirror our incumbent water supplier about the implementation of NEUB under the Drought Direction 2011. Albion Water would intend to apply for powers to ban all of the activities open to us, but only apply each restriction, when necessary and beneficial in terms of water savings and economic impact.

[5] UKWIR demand management project, 2007

Albion Water however does not have any non-domestic customers at Oaklands Hamlet. At Upper Rissington there are a handful of non-domestic customers (a small Co-op supermarket, a charity shop, and a pharmacy. The café has permanently closed) and there are also a couple of office buildings. Total daily measured demand for all non-domestic customers is 0.003 Ml/day.

Although technically Albion could apply for and impose a NEUB but this would achieve very little water saving and so we would not do this and these customers are considered exempt.

6.7 Emergency Drought Orders

An Emergency Drought Order (EDO) is the most severe customer restrictions Albion Water can impose in a drought under the Drought Direction 2011. These severe restrictions would mirror the incumbents and would only ever be considered if the supplies from the incumbent water company were severely depleted.

An application would be made to Defra to grant the Emergency Drought Order which would including being able to introduce rota cuts and stand pipes.

Both Essex & Suffolk Water and Thames Water state in their Drought Plan and Water Resources Management Plan that the likelihood of needing an EDO is greater than a 1 in 125 year event or 'never'.

7 At the end of a drought

7.1 Identifying the end of a drought

The recovery from a drought will be based on a combination of factors including; recent rainfall, reservoir storage levels, river flows and customer demand. We will closely liaise with the two incumbent water companies to ascertain their supply volumes and available yields and their view of a drought recovery. Very careful judgement will be taken when removing any restrictions. We will only declare that the drought has ended once confirming with the Environment Agency and a return to 'normal conditions'.

7.2 Post drought review

We will conduct a Post Drought Review (PDR) which will involve compiling and analysis of data and reporting on this within three months of the drought end. All members of the Drought Management Team will contribute and be involved but the Technical Manager will be the lead on delivering this review, which will be reviewed by the Operations Manager and ultimately signed off by the Managing Director. In addition to the DMT it may be necessary to engage with others such as incumbents, customers and regulators.

The objective of the PDR is to evaluate how the Drought Plan performed and to identify lessons learnt which may lead to improvements to the Drought Plan. In particular the Review will focus on;

- effectiveness of drought triggers
- effectiveness of our drought actions
    - communication campaign
    - active leakage control
    - restrictions
- communications with incumbent water companies and Regulators

7.3 Revision of Drought Plan

Recommendations for improvement to our drought management process will be made where appropriate and shared with the Environment Agency.

If required post review any material changes will be made and the revised Drought Plan updated.

8 Environmental impact

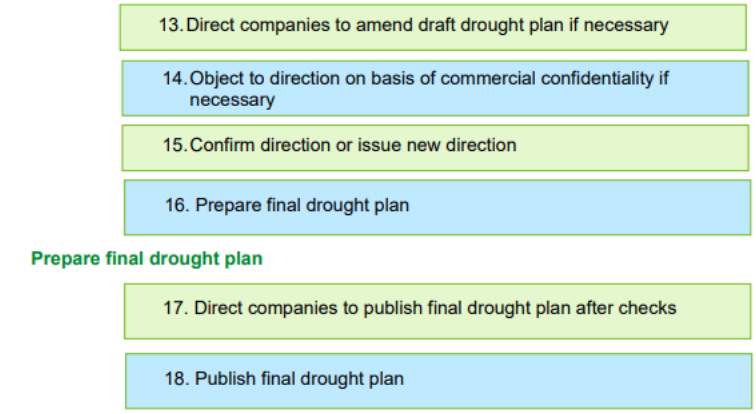
Albion Water does not operate any of its own water sources and we buy a bulk supply of water from the incumbent water provider. The environmental impacts of abstraction are therefore an issue to be managed by Thames Water and Essex & Suffolk Water. Consequently, no environmental assessment is appropriate.

9 Resilience

The bulk supply agreements have clauses in them which relate to resilience, in particular the actions to be taken by both parties should there be a problem in maintaining the bulk supply. These include the provision of an alternative back up connection or an alternative supply of water by bowser, temporary mains, bottled water or otherwise.

Appendix A

Figure 4 Statutory process for the development of a Drought Plan (source EA Guidance)


13. Direct companies to amend draft drought plan if necessary
14. Object to direction on basis of commercial confidentiality if necessary
15. Confirm direction or issue new direction
16. Prepare final drought plan
Prepare final drought plan
17. Direct companies to publish final drought plan after checks
18. Publish final drought plan
Key to party responsible for each step
Water companies
Water companies and third parties
Secretary of State / Environment Agency