



# Draft Water Resource Management Plan 2024

**INDEPENDENT WATER NETWORKS LTD.  
OCTOBER 2022**





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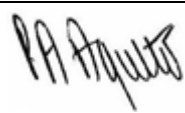
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**DOCUMENT CONTROL SHEET**

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Approved:	 Paula Agutter, Head of Water Regulations & Compliance	
Related Reports:	IWNL: Drought Plan 2021	

**STATEMENT OF ASSURANCE**

IWNL’s WRMP24 reflects and considers the relevant regional plans, national framework and relevant guidance and policy. The Board have engaged and overseen the development of WRMP24 which continues to meet our obligations to supply water and protect the environment.

Authorised:	 Charlie Thackeray, IWNL Director
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## 1 INTRODUCTION

### THIS WRMP

This is a draft version of the 2024 WRMP which will utilise consultation feedback with a variety of stakeholders (as detailed in Section 2).

IWNL confirms that we have adequate provision on all development sites to cater for long-term planning horizons.

### INDEPENDENT WATER NETWORKS LIMITED (IWNL)

Independent Water Networks Limited (IWNL) is a subsidiary company within the BUUK Infrastructure group of companies. We refer to these companies in the document as the “Group”.

The Group is involved in project acquisition, management, design, construction, ownership, operation and maintenance of utility networks and associated site infrastructure, serving new developments throughout the UK mainland.

The Group focuses primarily on the new build market and is the leading independent utility and infrastructure provider in the UK.

The Group has broadly divided its activities between the regulated ownership of utility network assets and the unregulated provision of utility infrastructure and asset management services. The Group owns assets at many thousands of sites across England, Scotland and Wales which include gas, electric, water, wastewater, district heating and fibre networks.

### INSET APPOINTMENTS

With the introduction of competition within the water industry, and following amendments to the Water Act 2003, the opportunity was created for the existing water and sewerage companies to be replaced by independent license holders.

New Appointments and Variations (NAV)s allow companies to offer water and/or sewerage services within a specified geographic area instead of the existing appointee. As a result, developers and large non-household customers can choose their supplier for these services and enjoy the benefits of a more competitive market.

NAV)s are granted by OFWAT following a period of consultation and subject to the applicant satisfying certain criteria to ensure the interests of the customers are protected. IWNL have been granted operating license/appointments to provide water and wastewater services in place of the existing appointed Water Companies. Operating licences have been granted in areas previously supplied by Affinity Water Limited, Anglian Water Services Limited, Bristol Water Plc, Cambridge Water, Essex and Suffolk Water, Northumbrian Water Limited, Portsmouth Water, Severn Trent Water Limited, South East Water Limited, South

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Staffordshire Water Plc, Southern Water Services Limited, Thames Water Utilities Limited, United Utilities Water Limited, Wessex Water Services Limited, and Yorkshire Water Services Limited. In this report, these areas are referred to as “inset areas”.

Note that the figures detailed in Tables 1.1 - 1.17 are taken directly from the bulk supply agreements signed by both companies.

IWNL continues to grow and will acquire new inset licences following publication of this plan. As these licences are obtained, IWNL will update the WRMP24 Tables for NAVs to include this as a part of our Annual Reports, which will be available on our website.

**Table 1.1 IWNL appointments within the Affinity Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Martello Lakes</b>	Dour	Water and Waste	09/11/2015	Indefinite
<b>Bishop Stortford</b>	Stort	Water and Waste	26/04/2018	Indefinite
<b>Bidwell, Houghton Regis</b>	Lee	Water and Waste	19/01/2018	Indefinite
<b>Nestles Avenue</b>	Pinn	Water	05/02/2020	Indefinite
<b>Oakwood Park</b>	Brett	Water and Waste	26/02/2020	Indefinite
<b>Archers Court Road</b>	Dour	Water and Waste	30/10/2020	Indefinite
<b>Folkestone Seafront</b>	Dour	Water and Waste	17/03/2021	Indefinite
<b>Turpins Farm</b>	Brett	Water and Waste	18/02/2021	Indefinite
<b>Weeley Road</b>	Brett	Water and Waste	23/04/2021	Indefinite
<b>Hadham Road (Phase 1)</b>	Stort	Water and Waste	10/08/2021	Indefinite
<b>West Road</b>	Stort	Water	29/04/2021	Indefinite
<b>E09508 17-51 London Road</b>	Wey	Water and Waste	06/07/2021	Indefinite
<b>Hertford Gas Works</b>	Lee	Water and Waste	10/11/2021	Indefinite
<b>Kings Langley</b>	Misbourne	Water and Waste	19/07/2021	Indefinite
<b>Barnfield Avenue</b>	Lee	Water and Waste	28/10/2021	Indefinite
<b>Canalside Copper Athletics Track</b>	Wey	Water and Waste	09/02/2022	Indefinite
<b>Palm Hill</b>	Wey	Water	22/08/2022	Indefinite
<b>Long Road</b>	Brett	Water and Waste	05/08/2022	Indefinite
<b>Hadham Road (Phase 2)</b>	Stort	Water and Waste	31/08/2022	Indefinite
<b>Henham Road</b>	Stort	Water and Waste	19/08/2022	Indefinite
<b>East of Stevenage</b>	Lee	Water and Waste	09/08/2022	Indefinite
<b>Harwich Valley</b>	Brett	Water and Waste	20/07/2022	Indefinite
<b>Manor Farm, East Lane</b>	Dour	Water	31/08/2022	Indefinite

**Table 1.2 IWNL appointments within the Anglian Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Priors Hall</b>	Ruthamford North	Water and Waste	12/10/2007	Indefinite
<b>Little Stanion</b>	Ruthamford North	Water and Waste	23/10/2007	Indefinite
<b>Great Billing</b>	Ruthamford Central	Water	03/10/2008	Indefinite
<b>Brooklands</b>	Ruthamford Central	Water and Waste	21/12/2009	Indefinite
<b>Lincolnshire Lakes 1</b>	Central Lincolnshire	Water and Waste	21/05/2018	Indefinite
<b>Henley Road, Ipswich</b>	East Suffolk	Water	20/08/2018	Indefinite
<b>Clipstone Park</b>	Ruthamford South	Water	24/04/2019	Indefinite
<b>Colney Lane, Cringleford</b>	Norwich and the Broads	Water and Waste	29/08/2019	Indefinite
<b>Prebend Lane</b>	Central Lincolnshire	Water	02/09/2019	Indefinite
<b>Salhouse Road</b>	Norwich and the Broads	Water and Waste	10/09/2019	Indefinite
<b>Factory Lane</b>	East Suffolk	Water	16/09/2019	Indefinite
<b>Cowdray Centre</b>	South Essex	Water and Waste	20/09/2019	Indefinite
<b>Ashby Road, Daventry</b>	Ruthamford North	Water and Waste	19/11/2019	Indefinite
<b>Yardley Road</b>	Ruthamford Central	Water	12/11/2020	Indefinite
<b>St Giles Park</b>	Norwich and the Broads	Water and Waste	12/11/2019	Indefinite
<b>Greetwell Fields</b>	Central Lincolnshire	Water	20/03/2020	Indefinite
<b>Chilton Woods</b>	Sudbury	Water and Waste	04/04/2020	Indefinite
<b>Naisberry Farm</b>	Hartlepool	Water	17/11/2020	Indefinite
<b>Salhouse Road 2, Sprowston</b>	Norwich and the Broads	Water and Waste	24/07/2020	Indefinite
<b>Manor Road</b>	Norwich and the Broads	Water	31/07/2020	Indefinite
<b>Salhouse Road 3, Rackheath</b>	Norwich and the Broads	Water and Waste	02/06/2020	Indefinite
<b>Foxby Lane</b>	Nottinghamshire	Water	29/09/2020	Indefinite
<b>Norwich Road, Acle</b>	Norwich and the Broads	Water	30/09/2020	Indefinite
<b>Rowtree Park</b>	Ruthamford North	Water	16/10/2020	Indefinite
<b>Green Lane East</b>	Norwich and the Broads	Water	13/11/2020	Indefinite
<b>Eastrea Road</b>	Ruthamford North	Water	25/11/2020	Indefinite
<b>Thorney Green (Devon Road)</b>	East Suffolk	Water	18/11/2020	Indefinite
<b>Dunston Road</b>	Central Lincolnshire	Water and Waste	24/05/2021	Indefinite
<b>Church Street,</b>	Ruthamford South	Water	16/12/2020	Indefinite

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Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Langford</b>				
<b>Buckenham Road</b>	North Norfolk Rural	Water	24/06/2021	Indefinite
<b>Wynyard Park</b>	Hartlepool	Water	03/03/2021	Indefinite
<b>Ashfield Road</b>	Ixworth	Water	04/03/2021	Indefinite
<b>Tunstall Farm</b>	Hartlepool	Water	19/02/2021	Indefinite
<b>Upper Warren</b>	Hartlepool	Water	28/05/2021	Indefinite
<b>Norwood Farm</b>	Ruthamford North	Water	27/04/2021	Indefinite
<b>Stone Path Drive</b>	South Essex	Water and Waste	14/02/2021	Indefinite
<b>Hitchin Road</b>	Ruthamford South	Water	24/05/2021	Indefinite
<b>Stewartby (Phase 5)</b>	Ruthamford South	Water	29/03/2021	Indefinite
<b>London Road (Phase 1)</b>	Ruthamford North	Water	07/09/2021	Indefinite
<b>Flaxwell Fields</b>	South Lincolnshire	Water and Waste	24/06/2021	Indefinite
<b>Old Norwich Road</b>	East Suffolk	Water	29/03/2021	Indefinite
<b>Keston Nurseries</b>	Bourne	Water	06/05/2021	Indefinite
<b>Norwich Road, Swaffham</b>	North Norfolk Rural	Water	25/06/2021	Indefinite
<b>Barbrook Lane</b>	South Essex	Water and Waste	02/06/2021	Indefinite
<b>Dysart Road</b>	South Lincolnshire	Water	24/06/2021	Indefinite
<b>T3580 Broadland Fields (Phases 1 &amp; 2)</b>	Norwich and the Broads	Water and Waste	18/08/2021	Indefinite
<b>Halstead Road</b>	Central Essex	Water	28/05/2021	Indefinite
<b>Walkeringham Road</b>	Nottinghamshire	Water	15/06/2021	Indefinite
<b>Station Road, Grimsby</b>	East Lincolnshire	Water and Waste	13/08/2021	Indefinite
<b>Soham Road</b>	Newmarket	Water	02/08/2021	Indefinite
<b>Furlong Way</b>	South Lincolnshire	Water and Waste	20/09/2021	Indefinite
<b>Candleet Road</b>	East Suffolk	Water	13/12/2021	Indefinite
<b>Little Tufts</b>	East Suffolk	Water	23/07/2021	Indefinite
<b>Oundle Road</b>	Ruthamford North	Water and Waste	05/07/2022	Indefinite
<b>High Street</b>	East Suffolk	Water and Waste	11/11/2021	Indefinite
<b>Land Adjacent to Gleneagles Way</b>	South Essex	Water and Waste	06/10/2021	Indefinite
<b>Station Road, Long Melford</b>	Sudbury	Water and Waste	04/11/2021	Indefinite
<b>Appletree Farm</b>	South Essex	Water	07/10/2021	Indefinite
<b>Broad Street</b>	Ruthamford South	Water and Waste	14/09/2021	Indefinite
<b>Newark Road</b>	Ruthamford North	Water	18/03/2022	Indefinite
<b>Halstead Road, Earls Colne</b>	South Essex	Water and Waste	22/04/2022	Indefinite
<b>Eelsea Park</b>	Bourne	Water	26/10/2021	Indefinite
<b>Wardentree Lane</b>	Bourne	Water and Waste	01/04/2022	Indefinite

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<b>Site</b>	<b>Incumbent WRZ</b>	<b>Service(s)</b>	<b>Date granted</b>	<b>Contract Length</b>
<b>Berechurch Hall Road</b>	South Essex	Water and Waste	14/04/2022	Indefinite
<b>Bedford Road</b>	Ruthamford South	Water and Waste	03/03/2022	Indefinite
<b>Bromham Road</b>	Ruthamford South	Water and Waste	26/11/2021	Indefinite
<b>Merlins Point</b>	Central Linconshire	Water	16/11/2021	Indefinite
<b>Loraine Way</b>	East Suffolk	Water	03/12/2021	Indefinite
<b>Silfield Road (Phase 3)</b>	North Norfolk Rural	Water and Waste	28/04/2022	Indefinite
<b>Cedars Park 3C</b>	East Suffolk	Water	01/12/2021	Indefinite
<b>Longholme Road</b>	Nottinghamshire	Water and Waste	17/12/2021	Indefinite
<b>Fardish Road</b>	Ruthamford North	Water and Waste	25/05/2022	Indefinite
<b>Graze Hill</b>	Ruthamford South	Water and Waste	18/01/2022	Indefinite
<b>Wynyard (Phase 2)</b>	Hartlepool	Water	21/01/2022	Indefinite
<b>Tattenhoe Park (Phase 4)</b>	Ruthamford Central	Water and Waste	24/05/2022	Indefinite
<b>Daubenev Gate</b>	Ruthamford Central	Water and Waste	25/05/2022	Indefinite
<b>Womb Farm</b>	Ruthamford North	Water and Waste	22/02/2022	Indefinite
<b>Land off Nursery Lane</b>	North Fenland	Water and Waste	24/02/2022	Indefinite
<b>Ashton Road</b>	Ruthamford North	Water and Waste	02/03/2022	Indefinite
<b>North Street</b>	Central Linconshire	Water	14/07/2022	Indefinite
<b>Stanton Cross (Parcel 20)</b>	Ruthamford North	Water and Waste	14/06/2022	Indefinite
<b>Westerfield Road</b>	East Suffolk	Water and Waste	25/05/2022	Indefinite
<b>Land West of Bedford Road</b>	Ruthamford South	Water	04/03/2022	Indefinite
<b>Towerlands Site</b>	South Essex	Water and Waste	16/08/2022	Indefinite
<b>School Road, Elmswell</b>	Ixworth	Water	23/06/2022	Indefinite
<b>Northampton West</b>	Ruthamford North	Water	24/05/2022	Indefinite
<b>Sutton Road, WISBECH</b>	South Fenland	Water and Waste	13/06/2022	Indefinite
<b>Buckton Fields (Phase 3)</b>	Ruthamford North	Water and Waste	18/05/2022	Indefinite
<b>Overstone Leys</b>	Ruthamford North	Water and Waste	06/06/2022	Indefinite
<b>Park Road</b>	East Suffolk	Water	03/05/2022	Indefinite
<b>Wavendon Lodge</b>	Ruthamford South	Water and Waste	01/06/2022	Indefinite
<b>Dexters Farm</b>	Ruthamford South	Water and Waste	19/07/2022	Indefinite
<b>Whole Site, Hatchfield Farm</b>	Newmarket	Water	01/06/2022	Indefinite
<b>Bourne Road</b>	Bourne	Water	22/04/2022	Indefinite
<b>Oak Road</b>	Central Essex	Water	21/09/2022	Indefinite
<b>Manning Road</b>	Bourne	Water and Waste	23/08/2022	Indefinite
<b>The Brambles</b>	Ruthamford South	Water	25/04/2022	Indefinite

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Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Wixams 3.5</b>	Ruthamford South	Water	29/04/2022	Indefinite
<b>Northon's Lane</b>	Bourne	Water	20/05/2022	Indefinite
<b>HMS Ganges</b>	East Suffolk	Water and Waste	05/07/2022	Indefinite
<b>Ferry Road</b>	South Humber Bank	Water	24/05/2022	Indefinite
<b>Hookhams Path</b>	Ruthamford North	Water	24/05/2022	Indefinite
<b>Slough Road</b>	East Suffolk	Water	27/05/2022	Indefinite
<b>Newmarket Road, Burwell</b>	Newmarket	Water	05/07/2022	Indefinite
<b>Union Road</b>	Maidstone	Water and Waste	06/07/2022	Indefinite
<b>Stearn Land, Clipstone Park</b>	Ruthamford North	Water and Waste	15/08/2022	Indefinite
<b>Fitzgerald Road</b>	East Suffolk	Water and Waste	06/08/2022	Indefinite
<b>Cotterstock Road</b>	Ruthamford North	Water and Waste	06/07/2022	Indefinite
<b>The Street</b>	Bury Haverhill	Water and Waste	12/07/2022	Indefinite
<b>Land at School Lane</b>	Ruthamford South	Water	04/08/2022	Indefinite
<b>High Road, Weston</b>	Bourne	Water and Waste	19/07/2022	Indefinite
<b>Exning (Phase 2)</b>	NWM	Water	22/07/2022	Indefinite
<b>Brenda Road</b>	Hartlepool	Water	26/08/2022	Indefinite
<b>Finchingfield</b>	Anglian South Essex	Water	12/09/2022	Indefinite
<b>Fenny Road, Milton Keynes</b>	Ruthamford Central	Water	23/08/2022	Indefinite

**Table 1.3 IWNL appointments within the Bristol Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Parklands</b>	Bristol WRZ	Water, Water	25/07/2018	Indefinite
<b>Bonnington Walk</b>	Bristol WRZ	Water, Water and Waste	23/04/2021	Indefinite
<b>Cribbs Causeway</b>	Bristol WRZ	Water, Water and Waste	13/05/2021	Indefinite
<b>Engine Lane</b>	Bristol WRZ	Water, Water and Waste	18/08/2021	Indefinite
<b>Netherton Wood Lane</b>	Bristol WRZ	Water, Water and Waste	09/07/2021	Indefinite
<b>Fishpool Hill</b>	Bristol WRZ	Water, Water and Waste	10/08/2021	Indefinite
<b>Helliers Lane</b>	Bristol WRZ	Water, Water	14/01/2022	Indefinite
<b>Axbridge Road</b>	Bristol WRZ	Water, Water and Waste	26/04/2022	Indefinite
<b>Isleport Road</b>	Bristol WRZ	Water, Water and Waste	21/06/2022	Indefinite
<b>Crossways, Morton Way</b>	Bristol WRZ	Water, Water and Waste	10/08/2022	Indefinite

**Table 1.4 IWNL appointments within the Cambridge Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Newmarket Road</b>	Cambridge	Water	19/11/2019	Indefinite

**Table 1.5 IWNL appointments within the Essex and Suffolk Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Limebrook Way</b>	Essex	Water and Waste	29/03/2019	Indefinite
<b>Malyons Lane</b>	Essex	Water and Waste	23/09/2019	Indefinite
<b>Marsh Road</b>	Essex	Water	07/12/2020	Indefinite
<b>Manor Way, Stanford Le Hope</b>	Essex	Water and Waste	03/11/2021	Indefinite
<b>Gascoigne West (Phase 2)</b>	Essex	Water and Waste	13/05/2022	Indefinite
<b>River View</b>	Essex	Water	05/01/2022	Indefinite
<b>Maple Creek</b>	Essex	Water	25/08/2022	Indefinite
<b>Broad Road</b>	Essex	Water and Waste	29/04/2022	Indefinite
<b>Church Road, Bacton</b>	Essex	Water	19/05/2022	Indefinite
<b>Fossetts Way</b>	Essex	Water and Waste	18/05/2022	Indefinite
<b>Blossom Park</b>	Essex	Water and Waste	24/05/2022	Indefinite

**Table 1.6 IWNL appointments within the Northumbrian Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Throckley North, Newcastle</b>	Kielder	Water	13/07/2018	Indefinite
<b>Lambton Park</b>	Kielder	Water	27/11/2019	Indefinite
<b>Chester Road (Phase 1)</b>	Kielder	Water	29/04/2020	Indefinite
<b>Blakeston Lane</b>	Kielder	Water	21/12/2020	Indefinite
<b>Edderacres Walk</b>	Kielder	Water	15/01/2021	Indefinite
<b>Chapelgarth</b>	Kielder	Water	28/05/2021	Indefinite
<b>Cell A, Newcastle Great Park</b>	Kielder	Water	06/05/2021	Indefinite
<b>Percy Drive</b>	Kielder	Water and Waste	05/03/2021	Indefinite
<b>Seaton Vale</b>	Kielder	Water and Waste	10/05/2021	Indefinite
<b>Hesleden Road</b>	Kielder	Water	04/08/2021	Indefinite
<b>Burtree Lane</b>	Kielder	Water	12/10/2021	Indefinite



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Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Low Grange Farm</b>	Kielder	Water	27/08/2021	Indefinite
<b>West Benton</b>	Kielder	Water and Waste	21/12/2021	Indefinite
<b>Marton Avenue</b>	Kielder	Water	20/05/2022	Indefinite
<b>Four Lane Ends</b>	Kielder	Water and Waste	06/04/2022	Indefinite
<b>Blackburn Farm</b>	Kielder	Water	31/03/2022	Indefinite
<b>Windy Edge (Phase 2)</b>	Kielder	Water	09/06/2022	Indefinite
<b>Blackfell Way</b>	Kielder	Water and Waste	03/05/2022	Indefinite
<b>Howdon Green</b>	Kielder	Water and Waste	29/06/2022	Indefinite
<b>Beacon Lane</b>	Kielder	Water	24/06/2022	Indefinite

**Table 1.7 IWNL appointments within the Portsmouth Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Harbour Place</b>	Portsmouth	Water	07/08/2020	Indefinite
<b>The Spires</b>	Portsmouth	Water	12/11/2020	Indefinite
<b>Windmill Views</b>	Portsmouth	Water	15/10/2020	Indefinite
<b>Shopwhykes Lakes</b>	Portsmouth	Water	25/09/2020	Indefinite
<b>Drove Lane</b>	Portsmouth	Water and Waste	23/03/2021	Indefinite
<b>Fontwell Avenue</b>	Portsmouth	Water	30/09/2021	Indefinite
<b>Manor Road, Selsey</b>	Portsmouth	Water	13/10/2021	Indefinite
<b>Pebble Walk</b>	Portsmouth	Water	22/10/2021	Indefinite
<b>Portfield Quarry</b>	Portsmouth	Water	14/12/2021	Indefinite
<b>Hook Lane</b>	Portsmouth	Water and Waste	06/07/2022	Indefinite
<b>Manor Farm, Bedhampton</b>	Portsmouth	Water	26/01/2022	Indefinite
<b>Land at Camp Field</b>	Portsmouth	Water	04/03/2022	Indefinite
<b>Bilsham Road</b>	Portsmouth	Water and Waste	26/07/2022	Indefinite
<b>Seafield Road</b>	Portsmouth	Water	12/07/2022	Indefinite

**Table 1.8 IWNL appointments within the Severn Trent Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
Oakham	Rutland	Water	13/08/2012	Indefinite
Blythe Valley Park	Strategic Grid	Water and Waste	12/07/2018	Indefinite
Europa Way, Warwick	Strategic Grid	Water	26/07/2018	Indefinite
Nightingale Quarter	Strategic Grid	Water and Waste	21/05/2020	Indefinite
Lea Castle	Strategic Grid	Water	29/03/2021	Indefinite
Churchfields	Strategic Grid	Water and Waste	14/09/2021	Indefinite
Southend Lane (Phase 4)	Forest and Stroud	Water	04/02/2021	Indefinite
Firbeck Colliery	Nottinghamshire	Water	14/12/2021	Indefinite
Calverswall Lane	North Staffs	Water	12/03/2021	Indefinite
Soho Loop	Strategic Grid	Water and Waste	23/07/2021	Indefinite
Kettering Road	Strategic Grid	Water	15/06/2021	Indefinite
Newcomen Way	Severn Trent Water, Shelton	Water	02/08/2021	Indefinite
Bosworth Lane	Strategic Grid	Water	04/06/2021	Indefinite
Oldwood Road	Strategic Grid	Water	30/06/2021	Indefinite
Port Loop (Phase 3 & 4)	Strategic Grid	Water	28/09/2021	Indefinite
Broomhill Farm	Nottinghamshire	Water and Waste	29/09/2021	Indefinite
Brinsford Lodge	Shelton	Water	30/09/2021	Indefinite
Station Road, Darley Dale	Strategic Grid	Water	19/08/2021	Indefinite
Nightingale Road	Strategic Grid	Water	30/11/2021	Indefinite
Shaftmoor Lane	Strategic Grid	Water and Waste	04/05/2022	Indefinite
Cordy Lane	Nottinghamshire	Water	26/10/2021	Indefinite
Kirby Lane	Strategic Grid	Water	04/10/2021	Indefinite
New Lane	Nottinghamshire	Water	30/11/2021	Indefinite
London Road, Markfield	Strategic Grid	Water and Waste	11/11/2021	Indefinite
Station Road, Pershore	Strategic Grid	Water	28/10/2021	Indefinite
Rolleston Park	Nottinghamshire	Water and Waste	16/11/2021	Indefinite
Coney Green Lane	Strategic Grid	Water	13/01/2022	Indefinite
Shepherd's Lane (Water)	Shelton	Water	25/02/2022	Indefinite
Hollowdyke Lane	Newark	Water	10/12/2021	Indefinite
Pickford Green Lane	Strategic Grid	Water	25/04/2022	Indefinite

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Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
The Asps	Strategic Grid	Water and Waste	17/02/2022	Indefinite
Land off Barkbythorpe Road	Strategic Grid	Water	13/05/2022	Indefinite
Chesterfield Road	Strategic Grid	Water	10/12/2021	Indefinite
Rugby Radio Station	Strategic Grid	Water	12/01/2022	Indefinite
Snelsmoor Lane (Ph 1A & 1B)	Strategic Grid	Water and Waste	13/07/2022	Indefinite
Eakring Road	Nottinghamshire	Water	23/12/2021	Indefinite
Land East of Eastboro Way	Strategic Grid	Water and Waste	05/04/2022	Indefinite
Boat Lane	Strategic Grid	Water and Waste	24/05/2022	Indefinite
KP3	Strategic Grid	Water and Waste	06/07/2022	Indefinite
Long Lawford	Strategic Grid	Water	23/05/2022	Indefinite
Welbeck Road	Strategic Grid	Water	28/02/2022	Indefinite
Charlton Road	Strategic Grid	Water	05/07/2022	Indefinite
Beck Lane	Nottinghamshire	Water and Waste	04/05/2022	Indefinite
Money Hill	Strategic Grid	Water and Waste	18/07/2022	Indefinite
Naas Lane	Strategic Grid	Water	13/05/2022	Indefinite
Beckhampton Road	Nottinghamshire	Water	29/04/2022	Indefinite
Iveshead Road	Strategic Grid	Water	25/05/2022	Indefinite
Earls Court Farm	Strategic Grid	Water	09/08/2022	Indefinite
Kirklington Road	Nottinghamshire	Water	30/05/2022	Indefinite
Inkersall Road	Strategic Grid	Water	06/07/2022	Indefinite
Belgrave Middleway	Strategic Grid	Water and Waste	27/06/2022	Indefinite

**Table 1.9 IWNL appointments within the South East Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
Chilmington Green	Ashford	Water and Waste	27/03/2018	Indefinite
Cockering Road, Canterbury	Ashford	Water	17/09/2018	Indefinite
Turners Hill Road	Haywards Heath	Water	23/01/2020	Indefinite
Sutton Road	Maidstone	Water	29/04/2020	Indefinite
Watery Lane	Bracknell	Water	11/11/2020	Indefinite
Sportsman's Farm	Maidstone	Water	17/12/2020	Indefinite

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Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
Thanet Way	Ashford	Water and Waste	04/05/2021	Indefinite
Swing Swang Lane	Bracknell	Water	24/06/2021	Indefinite
Basingstoke Golf Course	Bracknell	Water	08/12/2021	Indefinite
Alton Brewery	Bracknell	Water	10/02/2022	Indefinite
Ashridge Farm	Bracknell	Water	05/11/2021	Indefinite
Wateringbury Way	Eastbourne	Water and Waste	03/02/2022	Indefinite
Church Road, Otham	Maidstone	Water	23/02/2022	Indefinite
Greenhill Road (West)	Ashford	Water	17/02/2022	Indefinite
Broad Oak Farm	Ashford	Water	30/03/2022	Indefinite
Beaufort Park, Hanworth	Bracknell	Water	14/06/2022	Indefinite
Ashford Road	Ashford	Water	24/03/2022	Indefinite
Cuckoo Fields and Ersham Park	Eastbourne	Water and Waste	06/07/2022	Indefinite
Areas 5.2 & 5.3, Kings Hill	Maidstone	Water	20/06/2022	Indefinite
Ersham Road	Eastbourne	Water	28/06/2022	Indefinite
Marshfoot Lane	Eastbourne	Water	08/06/2022	Indefinite
Land North of Mackie Avenue	Haywards Heath	Water	06/07/2022	Indefinite
Hailsham Road	Eastbourne	Water	26/05/2022	Indefinite
Kings Hill Phase 5 Area 5.6	Maidstone	Water	20/07/2022	Indefinite
Willingdon (Phase 3)	Eastbourne	Water	22/06/2022	Indefinite
Kings Hill Phase 5 Area 5.1	Maidstone	Water	14/07/2022	Indefinite
Hermitage Lane	Maidstone	Water	01/01/2001	Indefinite

**Table 1.10 IWNL appointments within the South Staff Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Goodmores Farm</b>	Wimbleball	Water and Waste	16/08/2022	Indefinite
<b>Land off Townsend Road</b>	Roadford	Water and Waste	19/08/2022	Indefinite
<b>Nadder Lane</b>	Roadford	Water and Waste	30/08/2022	Indefinite
<b>Higher Trenant Road</b>	Colliford	Water and Waste	17/08/2022	Indefinite
<b>Gatehouse Farm</b>	Roadford	Water and Waste	18/08/2022	Indefinite

**Table 1.11 IWNL appointments within the South West Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Ashby Road, Tamworth</b>	South Staffs	Water and Waste	05/05/2020	Indefinite
<b>St Neots Road</b>	Cambridge	Water	21/04/2021	Indefinite
<b>Goscote Lane</b>	South Staffs	Water	10/08/2021	Indefinite
<b>Fountain Lane</b>	South Staffs	Water	06/06/2022	Indefinite
<b>Rampton Road</b>	Cambridge	Water and Waste	25/04/2022	Indefinite
<b>Rectory Road</b>	South Staffs	Water and Waste	07/09/2022	Indefinite

**Table 1.12 IWNL appointments within the Southern Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>NES Crawley</b>	Southern Water, Sussex North	Water and Waste	21/08/2015	Indefinite
<b>North Whiteley</b>	Southern Water, Soton East	Water	07/11/2019	Indefinite
<b>Otterham Quay Lane</b>	Southern Water, Kent Medway	Water	25/11/2019	Indefinite
<b>Stoneham Lane</b>	Southern Water, Soton East	Water	26/08/2020	Indefinite
<b>Deer Park</b>	Southern Water, Soton East	Water	15/09/2020	Indefinite
<b>Poorhole Lane</b>	Southern Water, Kent Thanet	Water	23/07/2021	Indefinite
<b>Westwood Thanet</b>	Southern Water, Kent Thanet	Water and Waste	05/08/2021	Indefinite
<b>Land at Brook Lane</b>	Southern Water, Soton East	Water and Waste	30/05/2022	Indefinite
<b>Bargate Quarter</b>	Southern Water,	Water and	12/01/2022	Indefinite

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Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
	Soton East	Waste		
<b>Plaistow Road</b>	Southern Water, Sussex North	Water	22/12/2021	Indefinite
<b>Lyon Close</b>	Southern Water, Brighton	Water and Waste	30/05/2022	Indefinite
<b>Cliffe Woods</b>	Southern Water, Kent Medway	Water and Waste	24/08/2022	Indefinite
<b>Stoneham (Stage 2)</b>	Southern Water, Soton East	Water	17/02/2022	Indefinite
<b>Cryalls Lane/Wises Lane</b>	Southern Water, Kent Medway	Water	04/05/2022	Indefinite
<b>Southampton Road</b>	Southern Water, Soton East	Water	31/03/2022	Indefinite
<b>Greenway Lane</b>	Southern Water, Soton East	Water	28/04/2022	Indefinite
<b>Hoe Lane</b>	Southern Water, Soton West	Water and Waste	25/07/2022	Indefinite
<b>Harrow Lane</b>	Southern Water, Sussex Hastings	Water and Waste	27/07/2022	Indefinite
<b>Two Gate Lane</b>	Southern Water, Kingsclere	Water and Waste	16/08/2022	Indefinite
<b>Darwell Close</b>	Southern Water, Sussex Hastings	Water	24/08/2022	Indefinite

**Table 1.13 IWNL appointments within the Thames Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>GMV</b>	London	Water and Waste	13/11/2013	Indefinite
<b>The Bridge, Dartford</b>	London	Water and Waste	24/02/2010	Indefinite
<b>Kings Cross</b>	London	Water and Waste	25/06/2010	Indefinite
<b>Berryfields</b>	Wycombe and Aylesbury	Water and Waste	09/07/2010	Indefinite
<b>Castle Hill, Ebbsfleet</b>	London	Water	04/08/2016	Indefinite
<b>Ebbsfleet EQ</b>	London	Water and Waste	18/12/2019	Indefinite
<b>Brent Cross (Phase 1a.1 Potable)</b>	London	Water	19/02/2021	Indefinite
<b>Coronation Square (Phase 1)</b>	London	Water and Waste	16/04/2021	Indefinite
<b>South Chesterton</b>	SWOX	Water and Waste	21/03/2022	Indefinite
<b>Oval Village</b>	London	Water and Waste	07/09/2021	Indefinite
<b>Tudor Nurseries</b>	London	Water	17/08/2021	Indefinite
<b>Nine Elms Square (Phase 1)</b>	London	Water and Waste	10/09/2021	Indefinite

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Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
East Riverside	London	Water and Waste	14/09/2022	Indefinite
Brent Cross (Phase 2)	London	Water and Waste	29/06/2021	Indefinite
Nine Elms Park (EF+G)	London	Water and Waste	04/04/2022	Indefinite
Royal Docks West 2	London	Water and Waste	13/05/2022	Indefinite
Mount Pleasant	London	Water	23/08/2021	Indefinite
Thornton Park	London	Water and Waste	28/09/2021	Indefinite
Oxford North	SWOX	Water	18/02/2022	Indefinite
CEG North Abingdon	SWOX	Water and Waste	15/02/2022	Indefinite
Poplar Riverside	London	Water and Waste	22/03/2022	Indefinite
The Sands	SWOX	Water and Waste	31/01/2022	Indefinite
Wykham Park	SWOX	Water	27/04/2022	Indefinite
New Avenue	London	Water	01/08/2022	Indefinite
Fairford Lakes	SWOX	Water	25/05/2022	Indefinite
Neptune Works	London	Water and Waste	17/06/2022	Indefinite
Elephant & Castle Town Centre	London	Water and Waste	10/06/2022	Indefinite
Vulcan Wharf	London	Water and Waste	06/07/2022	Indefinite
Hill View Farm	SWOX	Water	26/08/2022	Indefinite
Patchworks, Homebase	London	Water	13/09/2022	Indefinite
Goffs Lane	London	Water and Waste	03/08/2022	Indefinite

**Table 1.14 IWNL appointments within the United Utilities Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
Ramsgreave Drive	Strategic Water Resource Zone	Water and Waste	21/06/2021	Indefinite
West Bridgewater Street	Strategic Water Resource Zone	Water	09/07/2021	Indefinite
Heath Lane	Strategic Water Resource Zone	Water	20/04/2021	Indefinite
Riverside Way	Strategic Water Resource Zone	Water and Waste	02/06/2021	Indefinite
Wharton Bridge	Strategic Water Resource Zone	Water	04/08/2021	Indefinite
Sycamore Lane	Strategic Water Resource Zone	Water	15/07/2021	Indefinite
Whitefield Drive	Strategic Water Resource Zone	Water	14/06/2021	Indefinite
Former Foxwood School	Strategic Water Resource Zone	Water	06/07/2021	Indefinite
Lock Lane	Strategic Water Resource Zone	Water	03/06/2021	Indefinite

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Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
Land off Tabley Lane	Strategic Water Resource Zone	Water	15/10/2021	Indefinite
Rockferry	Strategic Water Resource Zone	Water	15/09/2021	Indefinite
Croston Road (Phase 1 & 2)	Strategic Water Resource Zone	Water	25/08/2021	Indefinite
Windy Arbour	Strategic Water Resource Zone	Water	23/07/2021	Indefinite
Stainburn	Strategic Water Resource Zone	Water	21/07/2021	Indefinite
The White Ox	Strategic Water Resource Zone	Water	13/09/2021	Indefinite
Warton Fylde	Strategic Water Resource Zone	Water	06/08/2021	Indefinite
Belle Vue Greyhound Track	Strategic Water Resource Zone	Water	02/08/2021	Indefinite
Cranford Lodge	Strategic Water Resource Zone	Water	06/10/2021	Indefinite
Clifton Green	Strategic Water Resource Zone	Water	14/09/2021	Indefinite
Whittingham Lane	Strategic Water Resource Zone	Water	20/10/2021	Indefinite
Holts Lane	Strategic Water Resource Zone	Water	24/01/2022	Indefinite
Omega 3b	Strategic Water Resource Zone	Water	13/10/2021	Indefinite
Carrwood Road	Strategic Water Resource Zone	Water and Waste	03/03/2022	Indefinite
Blackpool Road	Strategic Water Resource Zone	Water	21/10/2021	Indefinite
Sydney Road	Strategic Water Resource Zone	Water	07/03/2022	Indefinite
Foxdenton 2	Strategic Water Resource Zone	Water	13/01/2022	Indefinite
Halton Court	Strategic Water Resource Zone	Water	11/11/2021	Indefinite
St Helens Road	Strategic Water Resource Zone	Water and Waste	10/11/2021	Indefinite
Ellison Fold Way	Strategic Water Resource Zone	Water and Waste	31/03/2022	Indefinite
Mill Lane	Strategic Water Resource Zone	Water	31/01/2022	Indefinite
Moss House Road	Strategic Water Resource Zone	Water	10/01/2022	Indefinite
Keyfold Farm	Strategic Water Resource Zone	Water	06/04/2022	Indefinite
Arthurs Lane	Strategic Water Resource Zone	Water and Waste	20/09/2022	Indefinite
Thames Avenue	Strategic Water Resource Zone	Water and Waste	30/11/2021	Indefinite
Hampshire Road	Strategic Water Resource Zone	Water	23/12/2021	Indefinite
Sovereign Fold	Strategic Water Resource Zone	Water	13/12/2021	Indefinite



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Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
Road	Resource Zone			
Gib Lane	Strategic Water Resource Zone	Water and Waste	23/09/2022	Indefinite
Pemberton Colliery	Strategic Water Resource Zone	Water and Waste	23/08/2022	Indefinite
Rossfield Park	Strategic Water Resource Zone	Water	26/04/2022	Indefinite
School Road, Kirkby-In-Furness	Strategic Water Resource Zone	Water	07/06/2022	Indefinite
Plummers Meadow	Strategic Water Resource Zone	Water	14/09/2022	Indefinite
Halewood Oaks	Strategic Water Resource Zone	Water	09/06/2022	Indefinite
Bourne Road, Thornton	Strategic Water Resource Zone	Water	17/06/2022	Indefinite

**Table 1.15 IWNL appointments within the Wessex Water Company area**

Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
Abbey Gardens	Wessex	Water	16/11/2021	Indefinite
Station Road, Crewkearne	Wessex	Water and Waste	06/01/2022	Indefinite
Wey Valley	Wessex	Water	29/10/2021	Indefinite
Firs Road	Wessex	Water	16/12/2021	Indefinite
Grovelands Way	Wessex	Water and Waste	04/04/2022	Indefinite
Filands View	Wessex	Water and Waste	09/06/2022	Indefinite
Swanage Grammar School	Wessex	Water	25/05/2022	Indefinite
Liddymore Farm	Wessex	Water and Waste	14/04/2022	Indefinite
Jurston Farm	Wessex	Water	12/08/2022	Indefinite
Stalbridge Road	Wessex	Water and Waste	22/06/2022	Indefinite
Station Road, Milborne Port	Wessex	Water and Waste	12/07/2022	Indefinite
Lavington Lane	Wessex	Water	16/08/2022	Indefinite
Three Lanes Way	Wessex	Water	09/09/2022	Indefinite

**Table 1.16 IWNL appointments within the Yorkshire Water Company area**

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Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Brough</b>	Grid Surface Water Zone	Water	08/10/2018	Indefinite
<b>Pitty Close Farm</b>	Grid Surface Water Zone	Water	15/08/2019	Indefinite
<b>Minster Way</b>	Grid Surface Water Zone	Water	27/08/2019	Indefinite
<b>Manse Farm</b>	Grid Surface Water Zone	Water	07/10/2019	Indefinite
<b>Heathlands</b>	Grid Surface Water Zone	Water	12/12/2019	Indefinite
<b>Breary Lane</b>	Grid Surface Water Zone	Water	09/12/2019	Indefinite
<b>Market Place</b>	Grid Surface Water Zone	Water	21/09/2020	Indefinite
<b>Hatfield Lane</b>	Grid Surface Water Zone	Water	12/11/2020	Indefinite
<b>City Fields</b>	Grid Surface Water Zone	Water	16/10/2020	Indefinite
<b>Stumpcross Lane</b>	Grid Surface Water Zone	Water	22/09/2020	Indefinite
<b>Kingsgate East Phase</b>	Grid Surface Water Zone	Water	08/12/2020	Indefinite
<b>Rawcliffe Road</b>	Grid Surface Water Zone	Water	25/11/2020	Indefinite
<b>Church Lane</b>	Grid Surface Water Zone	Water	28/07/2020	Indefinite
<b>Harland Way</b>	Grid Surface Water Zone	Water	27/11/2020	Indefinite
<b>Monks Bridge</b>	Grid Surface Water Zone	Water and Waste	26/08/2020	Indefinite
<b>Wheatley Hall Road 1</b>	Grid Surface Water Zone	Water	10/11/2020	Indefinite
<b>Cookridge (Phase 2)</b>	Grid Surface Water Zone	Water	20/11/2020	Indefinite
<b>Portholme Road</b>	Grid Surface Water Zone	Water	05/11/2020	Indefinite
<b>H26, Grosvenor Road, Hull</b>	Grid Surface Water Zone	Water	27/10/2020	Indefinite
<b>Doncaster Road</b>	Grid Surface Water Zone	Water	09/03/2021	Indefinite
<b>Orchard Close</b>	Grid Surface Water Zone	Water	26/08/2021	Indefinite
<b>Heathlands West</b>	Grid Surface Water Zone	Water	23/04/2021	Indefinite
<b>Pit Lane</b>	Grid Surface Water Zone	Water	15/10/2021	Indefinite
<b>Manor Farm (Phases 2,3,4 &amp; 5)</b>	Grid Surface Water Zone	Water	18/06/2021	Indefinite
<b>Wentworth Way</b>	Grid Surface Water Zone	Water	02/08/2021	Indefinite
<b>Low Moor Side</b>	Grid Surface Water Zone	Water	28/01/2022	Indefinite

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Site	Incumbent WRZ	Service(s)	Date granted	Contract Length
<b>Granby Farm</b>	Grid Surface Water Zone	Water	09/12/2021	Indefinite
<b>Middle Deepdale</b>	Grid Surface Water Zone	Water	18/08/2021	Indefinite
<b>Willow Lane (Phase 2)</b>	Grid Surface Water Zone	Water and Waste	12/10/2021	Indefinite
<b>Swinnow Park</b>	Grid Surface Water Zone	Water and Waste	04/02/2022	Indefinite
<b>Brighthouse Road</b>	Grid Surface Water Zone	Water and Waste	05/01/2022	Indefinite
<b>Beckhill Approach</b>	Grid Surface Water Zone	Water and Waste	10/11/2021	Indefinite
<b>Southfield Lane</b>	Grid Surface Water Zone	Water	14/09/2021	Indefinite
<b>Topcliffe Road</b>	Grid Surface Water Zone	Water	28/10/2021	Indefinite
<b>Mount Vernon Road</b>	Grid Surface Water Zone	Water	17/02/2022	Indefinite
<b>Boroughbridge Road</b>	Grid Surface Water Zone	Water	21/07/2022	Indefinite
<b>Cocoa East</b>	Grid Surface Water Zone	Water and Waste	16/03/2022	Indefinite
<b>Woodside Quarry</b>	Grid Surface Water Zone	Water and Waste	29/04/2022	Indefinite
<b>Throstle Rec Ground</b>	Grid Surface Water Zone	Water	15/08/2022	Indefinite
<b>Wyvern Park</b>	Grid Surface Water Zone	Water	12/04/2022	Indefinite
<b>Lockwood Farm</b>	Grid Surface Water Zone	Water	31/05/2022	Indefinite
<b>Broomfield Farm</b>	Grid Surface Water Zone	Water and Waste	07/06/2022	Indefinite
<b>Thirsk Road</b>	Grid Surface Water Zone	Water	21/09/2022	Indefinite

## IWNL'S APPROACH TO WATER RESOURCES

IWNL does not currently own or operate water sources. All our supplies are through bulk connections from the local incumbent water company. IWNL have negotiated bulk supply agreements with the incumbent water companies for each of the inset areas. These agreements are designed to secure adequate supplies for our customers throughout the 25-year planning period and include sufficient headroom to allow for uncertainties in demand forecasts.

IWNL are committed to achieving high levels of water-use efficiency. This will involve formulating a long-term strategy with developers to reduce water consumption on new domestic and commercial developments. This strategy will involve innovation and the development of strategic policies to:

- a. Promote efficient water use in domestic properties;
- b. Reduce in per capita consumption from the industry average of 139 l/p/d to the Government's aim of 110 l/p/d for new homes;
- c. Develop customer communication and an awareness of IWNL codes of practice to deliver reliable and sustainable supplies of water and wastewater services;
- d. Implement the latest AMR metering technology for all domestic and commercial supplies;
- e. Manage leakage to maintain low levels at inset appointed sites;
- f. Consider environmental solutions and water recycling strategies to meet specific water demand requirements for each inset licence appointed development;
- g. Work with the Home Builders Federation and house developers to help reduce the PCC in our insets;
- h. Explore water neutrality with the goal to reduce water usage and promote positive actions within the construction industry.

## SECURITY CONSIDERATIONS

As an inset supplier reliant on supplies from incumbent suppliers, we have liaised with each of them about security considerations. As a consequence, we are confident that they have robust security arrangements in place for their own infrastructure.

We do not own or operate any water treatment works or service reservoirs which might represent entry points for contaminants.

On sites that are still under development, site access is strictly controlled by the developer with all visitors being required to sign in and wear visible ID tags. These arrangements help to secure our operations against any deliberate attempts to sabotage water supplies.

## 2 THE REQUIREMENT FOR AND BACKGROUND TO WATER RESOURCES MANAGEMENT PLANS

### THE ROLE OF A WRMP

A water resources management plan sets out how a water company intends to maintain the balance between the supply and demand for water over a twenty five-year period. It shows how the company expects the demand for water to grow over the planning period and how it plans to meet those forecast demands.

### TIME SCALES

Water companies in England and Wales have a statutory requirement to prepare a WRMP every five years; this final plan will be submitted for approval to the Secretary of State in late 2022/early 2023.

### CONSULTATION

#### PRE-CONSULTATION

Prior to publication of this Draft Plan, IWNL consulted the Environment Agency and incumbent water companies as part of its compilation.

#### PUBLIC CONSULTATION

The statutory process for the preparation of water resources management plans sets out defined stages for consultation, and IWNL will be inviting views from individuals and organisations on our plan, as detailed below.

- All of our customers
- The Environment Agency (EA)
- The Drinking Water Inspectorate (DWI)
- The Water Services Regulation Authority (OFWAT)
- CCW (formerly Consumer Council for Water)
- Natural England
- RAPID
- National Infrastructure Commission
- Anglian Water Services Limited
- Thames Water Utilities Ltd
- Severn Trent Water Limited
- Southern Water
- Affinity Water
- South East Water
- Wessex Water
- Yorkshire Water
- Bristol Water
- Cambridge Water
- Northumbrian Water
- Portsmouth Water
- South West Water

- United Utilities
- Regional Planning Groups.

The period of consultation will be 8 weeks, opening on 9<sup>th</sup> December 2022 and closing on 3<sup>rd</sup> February 2023. IWNL will produce a Statement of Response to this consultation within 15 weeks of it opening.

### IWNL'S STRATEGY

IWNL has negotiated bulk-supply agreements with incumbent water companies with the intention of ensuring that no supply-demand balance is in deficit under baseline demand conditions. Risks for specific areas are considered in the supply-demand balance for each incumbent region which are detailed in section 3. IWNL's Drought Plans set out the short-term operational steps IWNL will take to maintain supplies in the event of a severe drought.

IWNL's Strategy for maintaining a positive supply-demand balance can be summarised as follows:

- Monitor actual demand as sites are developed to their full potential and develop a database of historic demand data to aid future demand planning.
- Implement a targeted programme of leakage monitoring and control (based on metering data) in order to maintain levels of leakage at or close to the economic level.
- Monitor available headroom to ensure that this does not fall below target headroom objectives.
- If available headroom falls below target headroom, consider options to eliminate the supply-demand deficit. This will entail one or more of the following:
  - implement demand management measures if these have not yet reached their optimum level of performance.
  - increase the quantities specified in bulk supply agreements.

### LEVELS OF SERVICE

A water company's target level of service is the standard of service (effectively the reliability of supply) that a customer can expect to receive. It is a form of contract between a water company and its customers. A water company's success in delivering its stated levels of service over a period of time depends on the combined effectiveness of its WRMP and Drought Plan.

It is accepted within the water industry that it would not be economically justified, or environmentally sustainable, to develop long-term plans that removed completely the need to periodically introduce restrictions on customer's non-essential use during more extreme drought events. The target level of service is therefore the average frequency with which restrictions on water use is expected to be applied to customers. This frequency should be considered appropriate both in terms of customer expectation, impact on the environment, and cost implications.

The quantity of water to be supplied under the bulk supply agreements allow for unconstrained demand in each WRZ to be supplied both now and in the future. However, the agreements

also allow for reductions in bulk supply to be applied during times of -drought.

IWNL’s levels of service are therefore effectively aligned to those of the incumbent water companies and the annual risk is unchanged throughout the planning period. These are the restrictions on water use that IWNL will apply as drought severity increases (categorised according to incumbent supplier):

**Table 2.1 IWNL’s Levels of Service Showing Annual Risk of Restriction in each Region**

<b>IWNL’S LEVEL OF SERVICE</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>ACTION</b>	Communication campaign, increased leakage control	Temporary use bans	Drought Order to implement a Non-Essential Use Ban	Emergency Drought Order
<b>Affinity Water Area</b>	10.0%	2.5%	1.3%	0.5%
<b>Anglian Water Area</b>	-	10.0%	2.5%	0.5%
<b>Bristol Water Area</b>	-	6.7%	3.0%	0.5%
<b>Cambridge Water Area</b>	-	5.0%	2.0%	1.0%
<b>Essex and Suffolk Water Area</b>	10.0%	5.0%	2.0%	0.4%
<b>Northumbrian Water Area</b>	5.0%	0.7%	0.5%	0.4%
<b>Portsmouth Water Area</b>	-	5.0%	1.3%	0.5%
<b>Severn Trent Water Area</b>	-	3.0%	3.0%	0.0%
<b>South East Water Area</b>	10.0%	2.5%	2.0%	0.5%
<b>South Staffs Water Area</b>	10.0%	5.0%	2.5%	0.5%
<b>South West Water Area</b>	20.0%	10.0%	5.0%	0.2%
<b>Southern Water Area</b>	20.0%	10.0%	5.0%	1.0%
<b>Thames Water Area</b>	20.0%	10.0%	5.0%	1.0%
<b>United Utilities Water Area</b>	-	5.0%	1.3%	0.5%
<b>Wessex Water Area</b>	-	1.0%	0.7%	0.5%
<b>Yorkshire Water Area</b>	-	4.0%	1.3%	0.2%

### NON-DROUGHT HAZARDS CONSIDERED

IWNL’s supplies are derived from bulk supply contracts and IWNL does not own any above-ground infrastructure on its clean water network. Having reviewed potential hazards (UKWIR 2013) on IWNL’s network, the following were identified as presenting a very low risk to IWNL’s supply resilience and have been factored into our calculations. Note that these are risks to IWNL’s assets and infrastructure, not to the incumbent suppliers who will have included these risks in their own plans.

- Freeze-Thaw.
- Landslip/Subsidence.
- Third Party - emptying inappropriate material into washouts.
- Geological Processes.
- Security and Emergency Measures Directive Hazards.

## GREENHOUSE GAS EMISSIONS

IWNL obtains water from bulk supplies and does not abstract, treat, or store water.

Although IWNL install polyethylene pipes, the production of greenhouse gases resulting from the manufacture and transport of these products is assessed by the manufacturer rather than the end-use to prevent double counting.

Consequently, IWNL assess our contribution of Carbon Dioxide equivalent emissions to be effectively zero tonnes.

## CURRENT DEVELOPMENT OF SUPPLY AREAS

Table 2.18 below shows the expected number of connections at full development together with the actual numbers of connected customers at the end of September 2022 for all IWNL inset areas.

**Table 2.2 Current and ultimate levels of development at IWNL sites in Affinity Water area**

Site	Number of connections				Current development % Connected
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Martello Lakes</b>	201	1050	1	1	19%
<b>Bishop Stortford</b>	826	2200	14	29	37%
<b>Bidwell, Houghton Regis</b>	980	1900	2	3	51%
<b>Nestles Avenue</b>	387	1389	4	13	27%
<b>Oakwood Park</b>	150	301	2	3	50%
<b>Archers Court Road</b>	64	264	0	1	24%
<b>Folkestone Seafront</b>	0	84	0	0	0%
<b>Turpins Farm</b>	0	210	0	0	0%
<b>Weeley Road</b>	0	136	0	2	0%
<b>Hadham Road (Phase 1)</b>	75	163	0	3	45%
<b>West Road</b>	38	140	1	1	27%
<b>E09508 17-51 London Road</b>	0	487	0	7	0%
<b>Hertford Gas Works</b>	0	375	0	2	0%
<b>Kings Langley</b>	25	55	1	2	45%
<b>Barnfield Avenue</b>	25	104	0	1	23%
<b>Canalside Copper Athletics Track</b>	0	88	0	0	0%
<b>Palm Hill</b>	0	81	0	0	0%
<b>Long Road</b>	0	485	0	0	0%



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Site	Number of connections				Current development % Connected
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Hadham Road (Phase 2)	0	84	0	0	0%
Henham Road	0	350	0	0	0%
East of Stevenage	0	618	0	0	0%
Harwich Valley	0	259	0	0	0%
Manor Farm, East Lane	0	138	0	0	0%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.3 Current and ultimate levels of development at IWNL sites in Anglian Water area**

Site	Number of connections				Current development % Connected
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Priors Hall	1547	5589	12	24	27%
Little Stanion	888	970	8	13	91%
Great Billing	162	162.00	4	5	99%
Brooklands	2124	2500.00	46	119	82%
Lincolnshire Lakes 1	0	3000	0	1	0%
Henley Road, Ipswich	16	1100	0	0	1%
Clipstone Park	682	1210	2	2	56%
Colney Lane, Cringleford	113	650	2	6	17%
Prebend Lane	97	278	1	1	35%
Salhouse Road	4	362	0	1	1%
Factory Lane	49	320	0	1	15%
Cowdray Centre	85	262	1	12	31%
Ashby Road, Daventry	41	515	1	9	8%
Yardley Road	118	250	0	3	46%
St Giles Park	106	350	0	9	29%
Greetwell Fields	104	500	0	3.00	20%
Chilton Woods	0	1150	0	1	0%
Naisberry Farm	69	220	0	2	31%
Salhouse Road 2, Sprowston	23	251	0	1	9%
Manor Road	63	69	0	0	91%
Salhouse Road 3,	95	535	0	3	17%

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Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Rackheath</b>					
<b>Foxby Lane</b>	68	454	0	1	14%
<b>Norwich Road, Acle</b>	44	137	0	0	32%
<b>Rowtree Park</b>	98	349	0	1	28%
<b>Green Lane East</b>	56	157	0	0	35%
<b>Eastrea Road</b>	35	158	1	1	22%
<b>Thorney Green (Devon Road)</b>	50	143	0	0	34%
<b>Dunston Road</b>	21	329	0	1	6%
<b>Church Street, Langford</b>	72	95	2	2	76%
<b>Buckenham Road</b>	0	165	0	1	0%
<b>Wynyard Park</b>	28	67	2	2	43%
<b>Ashfield Road</b>	5	106	0	2	4%
<b>Tunstall Farm</b>	0	162	0	0	0%
<b>Upper Warren</b>	18	570	0	4	3%
<b>Norwood Farm</b>	0	1900	0	1	0%
<b>Stone Path Drive</b>	27	140	0	2	19%
<b>Hitchin Road</b>	45	150	0	4	29%
<b>Stewartby (Phase 5)</b>	51	110	0	0	46%
<b>London Road (Phase 1)</b>	0	525	0	0	0%
<b>Flaxwell Fields</b>	40	190	0	1	20%
<b>Old Norwich Road</b>	15	190	0	1	7%
<b>Keston Nurseries</b>	23	100	0	0	23%
<b>Norwich Road, Swaffham</b>	32	185	0	0	17%
<b>Barbrook Lane</b>	22	200	0	2	10%
<b>Dysart Road</b>	56	227	0	1	24%
<b>T3580 Broadland Fields (Phases 1 &amp; 2)</b>	0	315	0	3	0%
<b>Halstead Road</b>	21	142	0	0	14%
<b>Walkeringham Road</b>	21	33	0	0	63%
<b>Station Road, Grimsby</b>	10	400	0	3	2%
<b>Soham Road</b>	34	52	1	1	66%
<b>Furlong Way</b>	27	315	1	1	8%
<b>Candleet Road</b>	41	560	0	3	7%
<b>Little Tufts</b>	29	100	0	2	28%
<b>Oundle Road</b>	0	130	0	0	0%
<b>High Street</b>	0	368	0	7	0%
<b>Land Adjacent to</b>	30	100	0	0	30%

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Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Gleneagles Way</b>					
<b>Station Road, Long Melford</b>	1	150	0	1	0%
<b>Appletree Farm</b>	0	78	0	1	0%
<b>Broad Street</b>	24	80	0	2	29%
<b>Newark Road</b>	0	94	0	0	0%
<b>Halstead Road, Earls Colne</b>	0	100	0	3	0%
<b>Elsa Park</b>	8	373	0	2	2%
<b>Wardentree Lane</b>	0	96	0	1	0%
<b>Berechurch Hall Road</b>	0	153	0	1	0%
<b>Bedford Road</b>	0	115	0	0	0%
<b>Bromham Road</b>	0	296	0	0	0%
<b>Merlins Point</b>	0	148	0	0	0%
<b>Lorraine Way</b>	0	190	0	0	0%
<b>Silfield Road (Phase 3)</b>	0	555	0	1	0%
<b>Cedars Park 3C</b>	0	85	0	1	0%
<b>Longholme Road</b>	0	60	0	1	0%
<b>Farndish Road</b>	8	75	1	1	11%
<b>Graze Hill</b>	0	163	0	2	0%
<b>Wynyard (Phase 2)</b>	0	243	0	0	0%
<b>Tattenhoe Park (Phase 4)</b>	0	160	0	1	0%
<b>Daubeney Gate</b>	10	73	0	0	13%
<b>Womb Farm</b>	0	248	0	0	0%
<b>Land off Nursery Lane</b>	0	125	0	0	0%
<b>Ashton Road</b>	0	65	0	0	0%
<b>North Street</b>	0	135	0	1	0%
<b>Stanton Cross (Parcel 20)</b>	0	180	0	1	0%
<b>Westerfield Road</b>	0	455	0	0	0%
<b>Land West of Bedford Road</b>	0	85	0	0	0%
<b>Towerlands Site</b>	0	509	0	0	0%
<b>School Road, Elmswell</b>	0	86	0	0	0%
<b>Northampton West</b>	0	430	0	0	0%
<b>Sutton Road, WISBECH</b>	0	217	0	0	0%
<b>Buckton Fields (Phase 3)</b>	0	262	0	0	0%
<b>Overstone Leys</b>	0	700	0	0	0%

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Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Park Road	0	70	0	0	0%
Wavendon Lodge	0	108	0	0	0%
Dexters Farm	0	59	0	0	0%
Whole Site, Hatchfield Farm	0	400	0	0	0%
Bourne Road	0	66	0	0	0%
Oak Road	0	80	0	0	0%
Manning Road	0	121	0	0	0%
The Brambles	0	42	0	0	0%
Wixams 3.5	0	180	0	0	0%
Northon's Lane	0	103	0	0	0%
HMS Ganges	0	345	0	0	0%
Ferry Road	0	64	0	0	0%
Hookhams Path	0	98	0	0	0%
Slough Road	0	65	0	0	0%
Newmarket Road, Burwell	0	400	0	0	0%
Union Road	0	146	0	0	0%
Stearn Land, Clipstone Park	0	270	0	0	0%
Fitzgerald Road	0	115	0	0	0%
Cotterstock Road	0	130	0	0	0%
The Street	0	300	0	0	0%
Land at School Lane	0	50	0	0	0%
High Road, Weston	0	150	0	0	0%
Exning (Phase 2)	0	205	0	0	0%
Brenda Road	0	234	0	0	0%
Finchingfield	0	50	0	0	0%
Fenny Road, Milton Keynes	0	58	0	0	0%

- Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.
2. 'Ultimate' refers to the expected no. of connections at full build-out.
3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.4 Current and ultimate levels of development at IWNL sites in Bristol Water area**

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Parklands</b>	182	1600.00	2	1	11%
<b>Bonnington Walk</b>	0	185.00	0	1	0%
<b>Cribbs Causeway</b>	0	1000.00	0	0	0%
<b>Engine Lane</b>	0	171.00	0	0	0%
<b>Netherton Wood Lane</b>	14	450.00	0	2	3%
<b>Fishpool Hill</b>	0	1100.00	0	1	0%
<b>Helliers Lane</b>	0	60.00	0	0	0%
<b>Axbridge Road</b>	0	96.00	0	0	0%
<b>Isleport Road</b>	0	248.00	0	0	0%
<b>Crossways, Morton Way</b>	0	69.00	0	0	0%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.5 Current and ultimate levels of development at IWNL sites in Cambridge Water area**

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Newmarket Road</b>	169	1312	5	12	13%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.6 Current and ultimate levels of development at IWNL sites in Essex and Suffolk Water area**

Site	Number of connections				Current development % Connected
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Limebrook Way</b>	334	1000	4	7	33%
<b>Malyons Lane</b>	219	500	2	11	43%
<b>Marsh Road</b>	54	110	0	2	48%
<b>Manor Way, Stanford Le Hope</b>	44	153	0	4	28%
<b>Gascoigne West (Phase 2)</b>	0	386	0	0	0%
<b>River View</b>	10	78	0	0	12%
<b>Maple Creek</b>	0	168	0	9	0%
<b>Broad Road</b>	0	65	0	0	0%
<b>Church Road, Bacton</b>	0	81	0	0	0%
<b>Fossetts Way</b>	0	221	0	0	0%
<b>Blossom Park</b>	0	91	0	0	0%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.7 Current and ultimate levels of development at IWNL sites in Northumbrian Water area**

Site	Number of connections				Current development % Connected
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Throckley North, Newcastle</b>	169	580	3	5	29%
<b>Lambton Park</b>	40	400	0	5	9%
<b>Chester Road (Phase 1)</b>	35	118	1	1	30%
<b>Blakeston Lane</b>	50	76	1	2	65%
<b>Edderacres Walk</b>	55	250	1	0	22%
<b>Chapelgarth</b>	26	590	0	2	4%
<b>Cell A, Newcastle Great Park</b>	84	1200	1	2	7%
<b>Percy Drive</b>	100	272	0	0	36%
<b>Seaton Vale</b>	0	600	0	0	0%

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<b>Hesleden Road</b>	22	123	1	1	18%
<b>Burtree Lane</b>	0	380	0	1	0%
<b>Low Grange Farm</b>	0	990	0	3	0%
<b>West Benton</b>	25	650	0	2	3%
<b>Marton Avenue</b>	0	72	0	0	0%
<b>Four Lane Ends</b>	3	145	0	0	2%
<b>Blackburn Farm</b>	5	76	0	1	6%
<b>Windy Edge (Phase 2)</b>	0	125	0	0	0%
<b>Blackfell Way</b>	0	73	0	0	0%
<b>Howdon Green</b>	0	82	0	0	0%
<b>Beacon Lane</b>	13	715	0	0	1%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.8 Current and ultimate levels of development at IWNL sites in Portsmouth Water area**

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Harbour Place</b>	109	320	1	9	33%
<b>The Spires</b>	31	200	0	2	15%
<b>Windmill Views</b>	60	95	2	1	64%
<b>Shopwhykes Lakes</b>	76	169	1	2	45%
<b>Drove Lane</b>	0	300	0	1	0%
<b>Fontwell Avenue</b>	13	42	0	3	28%
<b>Manor Road, Selsey</b>	0	193	0	1	0%
<b>Pebble Walk</b>	0	195	0	4	0%
<b>Portfield Quarry</b>	0	88	0	1	0%
<b>Hook Lane</b>	0	300	0	21	0%
<b>Manor Farm, Bedhampton</b>	0	50	0	1	0%
<b>Land at Camp Field</b>	0	70	0	0	0%
<b>Bilsham Road</b>	0	250	0	0	0%
<b>Seafield Road</b>	0	48	0	0	0%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.9 Current and ultimate levels of development at IWNL sites in Severn Trent Water area**

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Oakham	822	1100	3	11	74%
Blythe Valley Park	436	750	1	11	57%
Europa Way, Warwick	398	735	2	2	54%
Nightingale Quarter	105	900	0	3	11%
Lea Castle	158	600	0	4	26%
Churchfields	112	240	0	2	46%
Southend Lane (Phase 4)	82	230	0	0	35%
Firbeck Colliery	16	400	0	1	3%
Calverswall Lane	43	169	0	0	25%
Soho Loop	0	752	0	3	0%
Kettering Road	15	600	0	0	2%
Newcomen Way	55	55	0	1	98%
Bosworth Lane	37	116	0	1	31%
Oldwood Road	27	72	0	1	36%
Port Loop (Phase 3 & 4)	0	394	0	4	0%
Broomhill Farm	21	217	1	2	10%
Brinsford Lodge	24	81	0	2	28%
Station Road, Darley Dale	0	100	0	1	0%
Nightingale Road	0	363	0	0	0%
Shaftmoor Lane	0	288	0	3	0%
Cordy Lane	0	115	0	1	0%
Kirby Lane	0	199	1	1	0%
New Lane	10	81	0	1	12%
London Road, Markfield	0	282	0	0	0%
Station Road, Pershore	20	196	1	2	10%
Rolleston Park	0	131	0	1	0%
Coney Green Lane	0	78	0	1	0%
Shepherd's Lane (Water)	0	271	0	2	0%
Hollowdyke Lane	6	350	1	1	1%
Pickford Green Lane	0	60	0	0	0%
The Asps	0	900	0	0	0%



Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Land off Barkbythorpe Road	0	574	0	1	0%
Chesterfield Road	0	150	0	1	0%
Rugby Radio Station	36	194	0	1	18%
Snelsmoor Lane (Ph 1A & 1B)	0	800	0	0	0%
Eakring Road	0	103	0	2	0%
Land East of Eastboro Way	0	360	0	0	0%
Boat Lane	0	200	0	0	0%
KP3	0	172	0	0	0%
Long Lawford	0	149	0	0	0%
Welbeck Road	0	238	0	0	0%
Charlton Road	0	195	0	0	0%
Beck Lane	0	322	0	0	0%
Money Hill	0	605	0	0	0%
Naas Lane	0	97	0	0	0%
Beckhampton Road	0	131	0	0	0%
Iveshead Road	0	63	0	0	0%
Earls Court Farm	0	915	0	0	0%
Kirklington Road	2	136	1	1	2%
Inkersall Road	0	400	0	0	0%
Belgrave Middleway	0	439	0	0	0%

- Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.  
 2. 'Ultimate' refers to the expected no. of connections at full build-out.  
 3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.10 Current and ultimate levels of development at IWNL sites in South East Water area**

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Chilmington Green	240	5750	3	4	4%
Cockering Road, Canterbury	127	750	2	11	16%
Turners Hill Road	43	200	0	1	21%
Sutton Road	124	791	0	10	15%
Watery Lane	0	300	2	8	0%

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Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Sportsman's Farm	44	120	0	0	36%
Thanet Way	41	425	0	1	9%
Swing Swang Lane	3	100	1	4	3%
Basingstoke Golf Course	0	1000	0	15	0%
Alton Brewery	13	220	0	1	5%
Ashridge Farm	25	153	0	3	16%
Wateringbury Way	0	51	0	0	0%
Church Road, Otham	0	421	0	0	0%
Greenhill Road (West)	0	450	0	0	0%
Broad Oak Farm	0	456	0	0	0%
Beaufort Park, Hanworth	0	68	0	0	0%
Ashford Road	0	80	0	0	0%
Cuckoo Fields and Ersham Park	0	400	0	0	0%
Areas 5.2 & 5.3, Kings Hill	0	210	0	0	0%
Ersham Road	0	241	0	0	0%
Marshfoot Lane	0	300	0	0	0%
Land North of Mackie Avenue	0	500	0	0	0%
Hailsham Road	0	90	0	0	0%
Kings Hill Phase 5 Area 5.6	0	70	0	0	0%
Willingdon (Phase 3)	0	220	0	0	0%
Kings Hill Phase 5 Area 5.1	0	70	0	0	0%
Hermitage Lane	0	840	0	0	0%

- Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.  
 2. 'Ultimate' refers to the expected no. of connections at full build-out.  
 3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.11 Current and ultimate levels of development at IWNL sites in South West Water area**

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Goodmores Farm	0	300	0	4	0%

<b>Land off Townsend Road</b>	0	55	0	0	0%
<b>Nadder Lane</b>	0	187	0	0	0%
<b>Higher Trenant Road</b>	0	203	0	0	0%
<b>Gatehouse Farm</b>	0	355	0	0	0%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.12 Current and ultimate levels of development at IWNL sites in South Staffs Water area**

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Ashby Road, TAMWORTH</b>	41	1000	0	3	4%
<b>St Neots Road</b>	45	155	0	1	28%
<b>Goscote Lane</b>	88	263	1	1	33%
<b>Fountain Lane</b>	0	193	0	0	0%
<b>Rampton Road</b>	0	140	0	0	0%
<b>Rectory Road</b>	0	121	0	0	0%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.13 Current and ultimate levels of development at IWNL sites in Southern Water area**

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>NES Crawley</b>	1150	1900	30	48	60%
<b>North Whiteley</b>	273	1562	0	9	17%
<b>Otterham Quay Lane</b>	51	300	0	7	16%
<b>Stoneham Lane</b>	41	65	3	4	63%
<b>Deer Park</b>	0	605	0	4	0%
<b>Poorhole Lane</b>	37	153	0	0	24%
<b>Westwood Thanet</b>	0	601	0	8	0%

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Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Land at Brook Lane	0	85	0	4	0%
Bargate Quarter	0	519	0	6	0%
Plaistow Road	0	54	1	1	1%
Lyon Close	0	152	0	0	0%
Cliffe Woods	0	184	0	2	0%
Stoneham (Stage 2)	3	322	0	0	0%
Cryalls Lane/Wises Lane	0	595	0	0	0%
Southampton Road	0	95	0	0	0%
Greenway Lane	0	81	0	0	0%
Hoe Lane	0	300	0	0	0%
Harrow Lane	0	140	0	0	0%
Two Gate Lane	0	82	0	0	0%
Darwell Close	0	210	0	0	0%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.14 Current and ultimate levels of development at IWNL sites in Thames Water area**

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
GMV	936	1746	29	61	53%
The Bridge, Dartford	892	894	54	65	98%
Kings Cross	1069	2500	134	244	43%
Berryfields	3179	3835	49	110	81%
Castle Hill, Ebbsfleet	1151	1387	23	60	81%
Ebbsfleet EQ	50	4500	0	0	1%
Brent Cross (Phase 1a.1 Potable)	0	6700	5	9	0%
Coronation Square (Phase 1)	0	429	0	9	0%
South Chesterton	0	2350	0	1	0%

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Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Oval Village	0	1309	0	3	0%
Tudor Nurseries	42	360	0	1	11%
Nine Elms Square (Phase 1)	507	524	0	1	96%
East Riverside	0	530	0	13	0%
Brent Cross (Phase 2)	0	1281	5	9	0%
Nine Elms Park (EF+G)	0	759	0	0	0%
Royal Docks West 2	0	854	0	1	0%
Mount Pleasant	0	336	0	12	0%
Thornton Park	40	294	0	0	13%
Oxford North	0	318	0	0	0%
CEG North Abingdon	7	425	0	14	1%
Poplar Riverside	0	643	0	0	0%
The Sands	0	240	0	1	0%
Wykham Park	0	1000	0	2	0%
New Avenue	0	378	0	0	0%
Fairford Lakes	0	140	0	0	0%
Neptune Works	0	199	0	0	0%
Elephant & Castle Town Centre	0	485	0	0	0%
Vulcan Wharf	0	457	0	0	0%
Hill View Farm	0	159	0	0	0%
Patchworks, Homebase	0	583	0	0	0%
Goffs Lane	0	81	0	0	0%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.15 Current and ultimate levels of development at IWNL sites in United Utilities Water area**

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Ramsgreave Drive	8	63	0	0	12%
West Bridgewater	88	216	0	0	40%

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Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Street</b>					
<b>Heath Lane</b>	65	69	0	0	94%
<b>Riverside Way</b>	28	239	0	1	11%
<b>Wharton Bridge</b>	70	138	0	0	50%
<b>Sycamore Lane</b>	46	92	0	1	49%
<b>Whitefield Drive</b>	97	266	0	0	36%
<b>Former Foxwood School</b>	33	69	0	1	47%
<b>Lock Lane</b>	0	449	0	1	0%
<b>Land off Tabley Lane</b>	0	233	0	0	0%
<b>Rockferry</b>	20	186	0	0	10%
<b>Croston Road (Phase 1 &amp; 2)</b>	55	520	0	0	10%
<b>Windy Arbour</b>	29	328	0	0	8%
<b>Stainburn</b>	18	81	0	3	21%
<b>The White Ox</b>	29	67	0	1	42%
<b>Warton Fylde</b>	0	345	0	1	0%
<b>Belle Vue Greyhound Track</b>	0	247	0	0	0%
<b>Cranford Lodge</b>	0	106	0	0	0%
<b>Clifton Green</b>	4	51	0	2	7%
<b>Whittingham Lane</b>	0	66	0	0	0%
<b>Holts Lane</b>	0	102	0	1	0%
<b>Omega 3b</b>	41	145	0	0	28%
<b>Carrwood Road</b>	0	61	0	0	0%
<b>Blackpool Road</b>	8	231	1	1	3%
<b>Sydney Road</b>	0	245	0	0	0%
<b>Foxdenton 2</b>	0	160	0	0	0%
<b>Halton Court</b>	50	119	0	0	42%
<b>St Helens Road</b>	0	108	0	0	0%
<b>Ellison Fold Way</b>	15	345	0	0	4%
<b>Mill Lane</b>	0	50	0	1	0%
<b>Moss House Road</b>	0	86	0	1	0%
<b>Keyfold Farm</b>	0	129	0	0	0%
<b>Arthurs Lane</b>	0	201	0	1	0%
<b>Thames Avenue</b>	13	59	0	0	22%
<b>Hampshire Road</b>	0	48	0	0	0%
<b>Sovereign Fold Road</b>	0	99	0	0	0%
<b>Gib Lane</b>	0	155	0	0	0%
<b>Pemberton Colliery</b>	0	268	0	0	0%

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Rosfield Park	0	208	0	0	0%
School Road, Kirkby-In-Furness	0	46	0	0	0%
Plummers Meadow	0	98	0	0	0%
Halewood Oaks	0	315	0	0	0%
Bourne Road, Thornton	0	210	0	0	0%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.16 Current and ultimate levels of development at IWNL sites in Wessex Water area**

Site	Number of connections				Current development Connected %
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
Abbey Gardens	0	162	0	1	0%
Station Road, Crewkearne	0	635	0	1	0%
Wey Valley	0	323	0	0	0%
Firs Road	0	50	0	1	0%
Grovelands Way	0	131	0	0	0%
Filands View	0	70	0	0	0%
Swanage Grammar School	0	90	0	0	0%
Liddymore Farm	0	250	0	0	0%
Jurston Farm	0	190	0	0	0%
Stalbridge Road	0	130	0	0	0%
Station Road, Milborne Port	0	65	0	0	0%
Lavington Lane	0	50	0	0	0%
Three Lanes Way	0	41	0	0	0%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

**Table 2.17 Current and ultimate levels of development at IWNL sites in Yorkshire Water area**

Site	Number of connections				Current development % Connected
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Brough</b>	136	750	2	5	18%
<b>Pitty Close Farm</b>	101	250	1	2	40%
<b>Minster Way</b>	114	900	1	3	12%
<b>Manse Farm</b>	155	601	3	4	26%
<b>Heathlands</b>	208	324	3	3	64%
<b>Breary Lane</b>	205	319	2	4	64%
<b>Market Place</b>	66	131	0	0	50%
<b>Hatfield Lane</b>	40	800	0	0	5%
<b>City Fields</b>	317	735	3	5	43%
<b>Stumpcross Lane</b>	87	101	0	2	84%
<b>Kingsgate East Phase</b>	0	470	0	0	0%
<b>Rawcliffe Road</b>	108	400	0	1	26%
<b>Church Lane</b>	52	64	1	1	81%
<b>Harland Way</b>	10	87	0	0	11%
<b>Monks Bridge</b>	0	665	0	13	0%
<b>Wheatley Hall Road 1</b>	74	145	1	1	51%
<b>Cookridge (Phase 2)</b>	57	61	0	0	93%
<b>Portholme Road</b>	44	104	0	1	41%
<b>H26, Grosvenor Road, Hull</b>	60	143	0	0	41%
<b>Doncaster Road</b>	75	244	1	0	31%
<b>Orchard Close</b>	13	74	0	0	17%
<b>Heathlands West</b>	6	135	0	2	4%
<b>Pit Lane</b>	29	104	0	0	27%
<b>Manor Farm (Phases 2,3,4 &amp; 5)</b>	9	606	0	3	1%
<b>Wentworth Way</b>	24	157	0	1	15%
<b>Low Moor Side</b>	3	126	1	1	3%
<b>Granby Farm</b>	8	95	0	0	8%
<b>Middle Deepdale</b>	17	535	0	0	3%
<b>Willow Lane (Phase 2)</b>	0	400	0	2	0%



Site	Number of connections				Current development % Connected
	Domestic		Non-household		
	Current	Ultimate	Current	Ultimate	
<b>Swinnow Park</b>	0	790	0	2	0%
<b>Brighthouse Road</b>	0	91	0	0	0%
<b>Beckhill Approach</b>	0	153	0	2	0%
<b>Southfield Lane</b>	12	119	1	0	10%
<b>Topcliffe Road</b>	7	97	0	1	7%
<b>Mount Vernon Road</b>	1	42	0	1	2%
<b>Boroughbridge Road</b>	0	266	0	0	0%
<b>Cocoa East</b>	0	279	0	0	0%
<b>Woodside Quarry</b>	0	299	0	0	0%
<b>Throstle Rec Ground</b>	0	93	0	0	0%
<b>Wyvern Park</b>	0	188	0	0	0%
<b>Lockwood Farm</b>	0	82	0	0	0%
<b>Broomfield Farm</b>	0	233	0	0	0%
<b>Thirsk Road</b>	0	154	0	0	0%

Notes: 1. 'Current' refers to the actual numbers of connected customers at the end of September 2022.

2. 'Ultimate' refers to the expected no. of connections at full build-out.

3. Numbers exclude temporary builders' supplies to compounds etc.

IWNL customers are being supplied via new infrastructure constructed to industry standards, therefore, IWNL views these assets to be at low risk of failure. IWNL's networks use polyethylene pipe (PE pipe) which has a service lifetime exceeding 50 years. Details on the risk associated with infrastructure age are excluded from this plan as it is outside the 25-year planning period.

## THE SCOPE OF THE PLAN

The main components of a water resources management plan are as follows:

- A baseline forecast of demand for the 25-year planning period, assuming current demand policies.
- A baseline forecast of the available water supplies over the same period making assumptions about current resources and future known changes.
- From these forecasts, a baseline supply-demand balance is prepared by computing whether there is a water surplus or deficit in each year of the planning period.

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- If there is a deficit, IWNL devises and selects water management solutions to make up the deficit.
- IWNL assesses the cost and benefits of a range of supply and demand options and provides justification for the proposed preferred solutions.
- Prepare a final-supply demand balance, taking the preferred water management solutions into account.

As stated in section 1, all the company supplies are bulk transfers, therefore there is no requirement to carry out a deployable output assessment, nor the associated assessment of how sustainability reductions or the impact of climate change might affect supplies. These risks are born by the donor company, although in times of drought IWNL customers will have to share the impact of any supply restrictions on an equitable basis.

### 3 THE SUPPLY-DEMAND BALANCE

#### INTRODUCTION

This section describes the general methodology used to compute the supply-demand balance, the data available and the assumptions made. Detailed balances for each of the WRZs covered by this plan are presented and discussed in section 4. These will need to be revisited as data on actual consumption and water delivery become available. Assumed or estimated values can then be substituted with actual data. The opportunity to do this arises with each annual review of the plan with a new and revised plan due after five years.

#### DEPLOYABLE OUTPUT

IWNL does not own or operate water supply sources of its own. All supplies are bulk transfers from the incumbent water companies. There are no exports out of IWNL supply areas.

In general, the quantity of water to be made available in each WRZ has been negotiated with the incumbent water company such that no supply-demand deficit is envisaged within the twenty five-year planning horizon. Quantities are based on estimates of the total water requirement (baseline demand and operating losses) in each inset area at projected final development, i.e., after all the currently proposed development is complete.

Quantities are defined in terms of an annual maximum volume in m<sup>3</sup>/year, a maximum daily volume in m<sup>3</sup>/day and a maximum instantaneous flow in l/s. Values are set out in separate bulk supply agreements between IWNL and incumbent water companies

**Table 3.1 Agreed limits to the bulk supply within the Affinity Water area**

Site	Maximum instantaneous flow l/s	Maximum daily volume m <sup>3</sup> /day	Maximum annual volume m <sup>3</sup> /year
Martello Lakes	12.30	393.75	143718.75
Bishop Stortford	23.58*	825.00	301125.00
Bidwell, Houghton Regis	18.10	712.50	260062.50
Nestles Avenue	16.86*	520.88	190119.38
Oakwood Park	3.53	112.88	41199.38
Archers Court Road	3.09	99.00	36135.00
Folkestone Seafront	0.37	31.50	11497.50
Turpins Farm	2.46	78.75	28743.75
Weeley Road	1.59	51.00	18615.00
Hadham Road (Phase 1)	1.91	61.13	22310.63
West Road	1.66	52.50	19162.50
E09508 17-51 London Road	5.71	182.63	66658.13
Hertford Gas Works	4.39	140.63	51328.13
Kings Langley	0.64	20.63	7528.13
Barnfield Avenue	1.22	39.00	14235.00

Site	Maximum instantaneous flow l/s	Maximum daily volume m <sup>3</sup> /day	Maximum annual volume m <sup>3</sup> /year
Canalside Copper Athletics Track	1.03	33.00	12045.00
Palm Hill	0.95	30.38	11086.90
Long Road	5.82	185.92	67862.60
Hadham Road (Phase 2)	0.98	31.50	11497.50
Henham Road	5.14	161.25	58856.25
East of Stevenage	8.50	267.95	97800.38
Harwich Valley	3.04	97.13	35450.63
Manor Farm, East Lane	1.62	51.75	18888.75

\*Where two flow rate values are given, these have been combined.

**Table 3.2 Agreed limits to the bulk supply within the Anglian Water area**

Site	Maximum instantaneous flow l/s	Maximum daily volume m <sup>3</sup> /day	Maximum annual volume m <sup>3</sup> /year
Priors Hall	66.34	-	773863.88
Little Stanion	11.37	363.75	132,768.75
Great Billing	1.90	60.75	22,173.75
Brooklands	48.49	-	-
Lincolnshire Lakes 1	53	1125	410,625.00
Henley Road, Ipswich	12.89	412.5	150,562.50
Clipstone Park	33.36*	453.75	165,618.75
Colney Lane, Cringleford	7.62	243.75	88,968.75
Prebend Lane	3.26	105.4828767	38,501.25
Salhouse Road	4.24	135.75	49,548.75
Factory Lane	3.75	120	43,800.00
Cowdray Centre	3.07	98.25	35,861.25
Ashby Road, Daventry	7.37	636.768	232,420.32
Yardley Road	5.86	506.304	184,800.96
St Giles Park	4.8	414.72	151,372.80
Greetwell Fields	5.86	506.304	184,800.96
Chilton Woods	19.67	1699.488	620,313.12
Naisberry Farm	2.58	51.84	18,921.60
Salhouse Road 2, Sprowston	2.94	254.016	92,715.84
Manor Road	0.81	25.8750137	9,444.38

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Site	Maximum instantaneous flow l/s	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Salhouse Road 3, Rackheath	6.27	200.6250137		73,228.13	
Foxby Lane	5.32	170.25		62,141.25	
Norwich Road, Acle	1.61	51.3750137		18,751.88	
Rowtree Park	4.09	130.8750137		47,769.38	
Green Lane East	1.84	58.8750137		21,489.38	
Eastrea Road	1.97	63		22,995.00	
Thorney Green (Devon Road)	1.68	53.6250137		19,573.13	
Dunston Road	4.45	142.5		52,012.50	
Church Street, Langford	1.11	35.6250137		13,003.13	
Buckenham Road	1.93	61.8750137		22,584.38	
Wynyard Park	0.79	25.1250137		9,170.63	
Ashfield Road	1.24	39.75		14,508.75	
Tunstall Farm	1.9	60.75		22,173.75	
Upper Warren	6.68	213.75		78,018.75	
Norwood Farm	23.85*	737.914		269,338.61	
Stone Path Drive	1.66	52.5		19,162.50	
Hitchin Road	1.76	56.25		20,531.25	
Stewartby (Phase 5)	1.29	41.25		15,056.25	
London Road (Phase 1)	3.304	196.8750137		71,859.38	
Flaxwell Fields	2.23	71.25		26,006.25	
Old Norwich Road	2.23	71.25		26,006.25	
Keston Nurseries	1.17	37.5		13,687.50	
Norwich Road, Swaffham	2.17	69.3750137		25,321.88	
Barbrook Lane	2.34	75		27,375.00	
Dysart Road	2.66	85.1250137		31,070.63	
T3580 Broadland Fields (Phases 1 & 2)	3.69	118.1250137		43,115.63	
Halstead Road	1.66	53.25		19,436.25	
Walkeringham Road	0.39	12.3750137		4,516.88	
Station Road, Grimsby	2.8	220.64		80,533.60	
Soham Road	0.61	19.5		7,117.50	
Furlong Way	3.69	118.1250137		43,115.63	
Candle Road	6.56	210		76,650.00	
Little Tufts	1.17	37.5		13,687.50	
Oundle Road	1.52	48.75		17,793.75	
High Street	4.31	138		50,370.00	
Land Adjacent to Gleneagles Way	1.17	37.5		13,687.50	

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Site	Maximum instantaneous flow l/s	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Station Road, Long Melford	1.81	56.25		20,531.25	
Appletree Farm	0.91	29.25		10,676.25	
Broad Street	1	47.18		17,220.70	
Newark Road	0.96	30.75		11,223.75	
Halstead Road, Earls Colne	1.17	37.5		13,687.50	
Eelsea Park	4.37	139.8750137		51,054.38	
Wardentree Lane	1.13	36		13,140.00	
Berechurch Hall Road	1.79	57.3750137		20,941.88	
Bedford Road	1.35	43.1250137		15,740.63	
Bromham Road	3.47	111		40,515.00	
Merlins Point	1.73	55.5		20,257.50	
Lorraine Way	2.23	71.25		26,006.25	
Silfield Road (Phase 3)	6.5	208.1250137		75,965.63	
Cedars Park 3C	1	31.8750137		11,634.38	
Longholme Road	0.73	34.518		12,599.07	
Farndish Road	0.91	43.148		15,749.02	
Graze Hill	1.91	61.1250137		22,310.63	
Wynyard (Phase 2)	2.85	91.1250137		33,260.63	
Tattenhoe Park (Phase 4)	1.88	60		21,900.00	
Daubeney Gate	0.86	27.3750137		9,991.88	
Womb Farm	2.91	93		33,945.00	
Land off Nursery Lane	1.46	46.8750137		17,109.38	
Ashton Road	1.89	56.8750137		20,759.38	
North Street	2.29	73.1250137		26,690.63	
Stanton Cross (Parcel 20)	2.11	67.5		24,637.50	
Westerfield Road	5.61	178.7249315		65234.6	
Land West of Bedford Road	1.0	31.8750137		11,634.38	
Towerlands Site	6.43	204.3750685		74596.9	
School Road, Elmswell	1.09	34.75		12,683.75	
Northampton West	1.89	163.2750685		59595.4	
Sutton Road, WISBECH	2.54	81.3750137		29,701.88	
Buckton Fields (Phase 3)	3.05	97.5		35,587.50	
Overstone Leys	8.2	262.5		95812.5	
Park Road	0.82	26.25		9,581.25	
Wavendon Lodge	1.27	40.5		14,782.50	
Dexters Farm	0.69	22.1250137		8,075.63	
Whole Site, Hatchfield	4.688	166.8750685		60909.4	

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Site	Maximum instantaneous flow l/s	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
<b>Farm</b>					
<b>Bourne Road</b>	0.77	24.75		9,033.75	
<b>Oak Road</b>	0.938	30		10950	
<b>Manning Road</b>	1.418	45.375		16561.875	
<b>The Brambles</b>	0.49	15.75		5,748.75	
<b>Wixams 3.5</b>	2.11	67.5		24,637.50	
<b>Northon's Lane</b>	1.21	38.6250137		14,098.13	
<b>HMS Ganges</b>	4.53	143.4150137		52,346.48	
<b>Ferry Road</b>	0.75	24		8,760.00	
<b>Hookhams Path</b>	1.148	36.75		13413.75	
<b>Slough Road</b>	0.762	24.375		8896.875	
<b>Newmarket Road, Burwell</b>	4.71	150.576		54,960.24	
<b>Union Road</b>	1.71	54.75		19,983.75	
<b>Stearn Land, Clipstone Park</b>	3.1	101.25		36956.25	
<b>Fitzgerald Road</b>	1.35	43.1250137		15740.63	
<b>Cotterstock Road</b>	1.52	48.75		17,793.75	
<b>The Street</b>	5.25	162.5		59,312.50	
<b>Land at School Lane</b>	0.59	18.75		6,843.75	
<b>High Road, Weston</b>	1.7	56.25		20531.25	
<b>Exning (Phase 2)</b>	3.07	98		35,770.00	
<b>Brenda Road</b>	2.74	87.75		32028.75	
<b>Finchingfield</b>	0.217	18.75		6843.75	
<b>Fenny Road, Milton Keynes</b>	0.68	21.75		7938.75	

\*Where two flow rate values are given, these have been combined.

**Table 3.3 Agreed limits to the bulk supply within the Bristol Water area**

Site	Maximum flow l/s	instantaneous	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Parklands	31.39		600.00		219000.00	
Bonnington Walk	2.17		69.38		25321.88	
Cribbs Causeway	11.72		375.00		136875.00	
Engine Lane	2.00		64.13		23405.63	
Netherton Wood Lane	5.27		168.75		61593.75	
Fishpool Hill	12.89		412.50		150562.50	
Helliers Lane	0.7		22.50		8212.50	
Axbridge Road	1.13		36.00		13140.00	
Isleport Road	2.97		94.92		34645.80	
Crossways, Morton Way	0.081		25.87		9444.37	

**Table 3.4 Agreed limits to the bulk supply within the Cambridge Water area**

Site	Maximum flow l/s	instantaneous	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Newmarket Road	21.44*		492.00		179580.00	

\*Where two flow rate values are given, these have been combined.

**Table 3.5 Agreed limits to the bulk supply within the Essex and Suffolk Water area**

Site	Maximum flow l/s	instantaneous	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Limebrook Way	13.5*		375.00		136875.00	
Malyons Lane	5.86		187.50		68437.50	
Marsh Road	1.29		41.25		15056.25	
Manor Way, Stanford Le Hope	1.79		57.38		20941.88	
Gascoigne West (Phase 2)	4.52		144.75		52833.75	
River View	0.91		29.25		10676.25	
Maple Creek	1.969		63.00		22995.00	
Broad Road	0.76		24.38		8896.90	
Church Road, Bacton	0.949		30.38		11086.88	
Fossetts Way	2.59		82.88		30249.40	



Site	Maximum flow l/s	instantaneous	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Blossom Park	1.07		34.12		12455.60	

\*Where two flow rate values are given, these have been combined.

**Table 3.6 Agreed limits to the bulk supply within the Northumbrian Water area**

Site	Maximum flow l/s	instantaneous	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Throckley North, Newcastle	6.8		217.5		79,387.50	
Lambton Park	4.69		150		54,750.00	
Chester Road (Phase 1)	5.86		187.5		68,437.50	
Blakeston Lane	0.89		28.5		10,402.50	
Edderacres Walk	2.93		93.75		34,218.75	
Chapelgarth	6.91		221.25		80,756.25	
Cell A, Newcastle Great Park	14.06		450		164,250.00	
Percy Drive	3.19		102		37,230.00	
Seaton Vale	7.03		225		82,125.00	
Hesleden Road	1.44		46.12		16,835.63	
Burtree Lane	4.45		142.5		52,012.50	
Low Grange Farm	11.6		371.25		135,506.25	
West Benton	7.62		243.75		88,968.75	
Marton Avenue	0.84		27		9,855.00	
Four Lane Ends	1.7		54.37		19,846.88	
Blackburn Farm	0.89		28.5		10402.5	
Windy Edge (Phase 2)	1.46		46.8		17109.4	
Blackfell Way	0.855		27.375		9991.875	
Howdon Green	0.961		30.75		11223.75	
Beacon Lane	8.379		268.12		97865.62	

**Table 3.7 Agreed limits to the bulk supply within the Portsmouth Water area**

Site	Maximum flow l/s	instantaneous	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Harbour Place	3.75		120.00		43800.00	
The Spires	2.34		75.00		27375.00	

Windmill Views	1.11	35.63	13003.13
Shopwhykes Lakes	1.98	63.38	23131.88
Drove Lane	3.52	112.50	41062.50
Fontwell Avenue	0.49	15.75	5748.75
Manor Road, Selsey	2.26l	72.38	26416.88
Pebble Walk	2.29	73.13	26690.63
Portfield Quarry	1.03	33.00	12045.00
Hook Lane	4.23	133.00	48545.00
Manor Farm, Bedhampton	0.59	18.75	6843.75
Land at Camp Field	0.82	26.25	9581.25
Bilsham Road	2.93	93.75	34218.75
Seafield Road	0.563	18.00	6570.00

**Table 3.8 Agreed limits to the bulk supply within the Severn Trent Water area**

Site	Maximum instantaneous flow l/s	Maximum daily volume m3/day	Maximum annual volume m3/year
Oakham	14.40*	412.50	150562.50
Blythe Valley Park	8.79	281.25	102656.25
Europa Way, Warwick	8.61	275.63	100603.13
Nightingale Quarter	4.25	294.75	107583.75
Lea Castle	7.03	225.00	82125.00
Churchfields	2.81	90.00	32850.00
Southend Lane (Phase 4)	2.6	86.25	31481.25
Firbeck Colliery	4.69	150.00	54750.00
Calverswall Lane	1.98	63.38	23131.88
Soho Loop	8.81	282.00	102930.00
Kettering Road	7.03	225.00	82125.00
Newcomen Way	0.64	20.63	7528.13
Bosworth Lane	1.36	43.50	15877.50
Oldwood Road	0.84	27.00	9855.00
Port Loop (Phase 3 & 4)	4.73	151.50	55297.50
Broomhill Farm	2.54	81.38	29701.88
Brinsford Lodge	0.96	30.38	11086.88
Station Road, Darley Dale	1.17	37.50	13687.50
Nightingale Road	3.88	124.13	45305.63
Shaftmoor Lane	3.38	108.00	39420.00
Cordy Lane	1.35	43.13	15740.63
Kirby Lane	2.33	74.63	27238.13
New Lane	0.95	30.38	11086.88
London Road, Markfield	3.3	105.75	38598.75

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Site	Maximum flow l/s	instantaneous	Maximum volume m3/day	daily	Maximum volume m3/year	annual
Station Road, Pershore	2.3		73.50		26827.50	
Rolleston Park	1.54		49.13		17930.63	
Coney Green Lane	0.91		29.25		10676.25	
Shepherd's Lane (Water)	3.98		127.50		46537.50	
Hollowdyke Lane	4.1		131.25		47906.25	
Pickford Green Lane	0.7		22.50		8212.50	
The Asps	10.55		337.50		123187.50	
Land off Barkbythorpe Road	6.73		215.25		78566.25	
Chesterfield Road	1.76		56.25		20531.25	
Rugby Radio Station	2.27		72.75		26553.75	
Snelsmoor Lane (Ph 1A & 1B)	9.38		300.00		109500.00	
Eakring Road	1.21		38.63		14098.13	
Land East of Eastboro Way	4.22		135.00		49275.00	
Boat Lane	2.34		75.00		27375.00	
KP3	2.02		64.50		23542.50	
Long Lawford	1.75		55.88		20394.40	
Welbeck Road	2.79		89.25		32576.30	
Charlton Road	2.29		73.12		26690.60	
Beck Lane	3.77		120.75		44073.80	
Money Hill	7.65		243.08		88722.40	
Naas Lane	1.137		36.38		13276.88	
Beckhampton Road	1.535		49.13		17930.63	
Iveshead Road	0.738		23.63		8623.13	
Earls Court Farm	10.723		343.13		125240.63	
Kirklington Road	1.59		51.00		18615.00	
Inkersall Road	4.688		150.00		54750.00	
Belgrave Middleway	5.145		164.63		60088.13	

\*Where two flow rate values are given, these have been combined.

**Table 3.9 Agreed limits to the bulk supply within the South East Water area**

Site	Maximum instantaneous flow l/s	Maximum daily volume m <sup>3</sup> /day	Maximum annual volume m <sup>3</sup> /year
Chilmington Green	32.08*	2156.25	787031.25
Cockering Road, Canterbury	18.28*	281.25	102656.25
Turners Hill Road	2.34	75.00	27375.00
Sutton Road	9.27	296.63	108268.13
Watery Lane	3.52	112.50	41062.50
Sportsman's Farm	1.40	45.00	16425.00
Thanet Way	4.98	159.38	58171.88
Swing Swang Lane	1.17	37.50	13687.50
Basingstoke Golf Course	11.72	375.00	136875.00
Alton Brewery	8.10	82.50	30112.50
Ashridge Farm	1.79	57.38	20941.88
Wateringbury Way	0.57	18.38	6706.88
Church Road, Otham	4.93	157.88	57624.38
Greenhill Road (West)	5.34	170.78	62332.90
Broad Oak Farm	7.34	228.60	83438.64
Beaufort Park, Hanworth	0.80	25.50	9307.50
Ashford Road	1.64	50.27	18348.72
Cuckoo Fields and Ersham Park	4.69	150.00	54750.00
Areas 5.2 & 5.3, Kings Hill	2.46	78.75	28743.75
Ersham Road	2.82	90.38	32986.88
Marshfoot Lane	3.51	112.50	41062.50
Land North of Mackie Avenue	6.00	191.50	69897.50
Hailsham Road	1.05	33.75	12318.75
Kings Hill Phase 5 Area 5.6	0.82	26.25	9581.25
Willingdon (Phase 3)	2.64	84.38	30796.88
Kings Hill Phase 5 Area 5.1	0.80	26.25	9581.25
Hermitage Lane	10.56	335.50	122457.50

\*Where two flow rate values are given, these have been combined.

**Table 3.10 Agreed limits to the bulk supply within the South West Water area**

Site	Maximum flow l/s	instantaneous	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Goodmores Farm	3.46		130.11		47488.66	
Land off Townsend Road	0.63		23.54		8591.67	
Nadder Lane	2.19		70.13		25595.63	
Higher Trenant Road	2.39		76.50		27922.50	
Gatehouse Farm	5.50		171.59		62629.02	

**Table 3.11 Agreed limits to the bulk supply within the South Staffs Water area**

Site	Maximum flow l/s	instantaneous	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Ashby Road, Tamworth	11.72		375		136,875.00	
St Neots Road	1.82		58.12		21,215.63	
Goscote Lane	3.08		98.62		35,998.13	
Fountain Lane	2.26		72.37		26,416.88	
Rampton Road	1.641		52.5		19162.50	
Rectory Road	1.418		45.37		16561.87	

**Table 3.12 Agreed limits to the bulk supply within the Southern Water area**

Site	Maximum flow l/s	instantaneous	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
NES Crawley	31.83		718.58		262279.88	
North Whiteley	18.30		585.75		213798.75	
Otterham Quay Lane	3.52		112.50		41062.50	
Stoneham Lane	0.68		24.38		8896.88	
Deer Park	7.09		226.88		82809.38	
Poorhole Lane	1.79		57.38		20941.88	
Westwood Thanet	7.04		225.38		82261.88	
Land at Brook Lane	1.00		31.88		11634.38	
Bargate Quarter	7.47		234.63		85639.95	
Plaielow Road	0.63		20.25		7391.25	
Lyon Close	1.60		95.00		34675.00	
Cliffe Woods	2.16		69.00		25185.00	
Stoneham (Stage 2)	3.77		120.75		44073.75	

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Site	Maximum flow l/s	instantaneous	Maximum volume m3/day	daily	Maximum volume m3/year	annual
Cryalls Lane/Wises Lane	7.54		239.32		87353.60	
Southampton Road	1.11		35.62		13003.10	
Greenway Lane	0.95		30.38		11086.88	
Hoe Lane	3.50		112.50		41062.50	
Harrow Lane	1.64		52.50		19162.50	
Two Gate Lane	1.10		30.75		11223.75	
Darwell Close	2.46		78.75		28743.75	

**Table 3.13 Agreed limits to the bulk supply within the Thames Water area**

Site	Maximum flow l/s	instantaneous	Maximum volume m3/day	daily	Maximum volume m3/year	annual
GMV	23.46*		666.90		243418.50	
The Bridge, Dartford	35.40*		335.25		122366.25	
Kings Cross	327.00*		1275.68		465621.38	
Berryfields	115.64*		1523.18		555958.88	
Castle Hill, Ebbsfleet	25.48		520.13		189845.63	
Ebbsfleet EQ	21.03		1687.50		615937.50	
Brent Cross (Phase 1a.1 Potable)	141.65*		2512.50		917062.50	
Coronation Square (Phase 1)	8.79		281.25		102656.25	
South Chesterton	27.54		881.25		321656.25	
Oval Village	15.34		490.88		179169.38	
Tudor Nurseries	4.22		135.00		49275.00	
Nine Elms Square (Phase 1)	6.14		196.50		71722.50	
East Riverside	6.56		208.92		76254.00	
Brent Cross (Phase 2)	15.01		480.38		175336.88	
Nine Elms Park (EF+G)	8.89		284.63		103888.13	
Royal Docks West 2	10.01		320.25		116891.25	
Mount Pleasant	4.12		131.18		47879.61	
Thornton Park	3.45		110.25		40241.25	
Oxford North	12.59		380.33		138818.63	
CEG North Abingdon	4.98		159.38		58171.88	
Poplar Riverside	8.15		258.85		94478.96	
The Sands	2.81		90.00		32850.00	
Wykham Park	11.72		375.00		136875.00	
New Avenue	4.43		141.75		51738.75	

Site	Maximum instantaneous flow l/s	Maximum daily volume m <sup>3</sup> /day	Maximum annual volume m <sup>3</sup> /year
Fairford Lakes	1.64	52.50	19162.50
Neptune Works	2.52	79.99	29195.50
Elephant & Castle Town Centre	10.84	330.38	120586.90
Vulcan Wharf	5.94	188.25	68711.30
Hill View Farm	1.9	59.63	21763.13
Patchworks, Homebase	7.11	226.72	82754.60
Goffs Lane	0.95	30.37	11086.86

\*Where two flow rate values are given, these have been combined.

**Table 3.14 Agreed limits to the bulk supply within the United Utilities Water area**

Site	Maximum instantaneous flow l/s	Maximum daily volume m <sup>3</sup> /day	Maximum annual volume m <sup>3</sup> /year
Ramsgreave Drive	2.7	23.63	8,623.13
West Bridgewater Street	2.53	81.00	29,565.00
Heath Lane	0.81	25.88	9,444.38
Riverside Way	2.8	89.63	32,713.13
Wharton Bridge	1.62	51.75	18,888.75
Sycamore Lane	1.08	34.50	12,592.50
Whitefield Drive	3.12	99.75	36,408.75
Former Foxwood School	0.81	25.88	9,444.38
Lock Lane	5.27	168.75	61,593.75
Land off Tabley Lane	2.93	94.50	34,492.50
Rockferry	2.18	69.75	25,458.75
Croston Road (Phase 1 & 2)	5.5	135.20	49,348.00
Windy Arbour	3.4	85.28	31,128.00
Stainburn	0.85	21.07	7,689.00
The White Ox	0.85	21.06	7,687.00
Warton Fylde	3.6	89.70	32,740.50
Belle Vue Greyhound Track	2.6	64.22	23,440.30
Cranford Lodge	1.24	39.75	14,508.75
Clifton Green	0.6	19.13	6,980.63
Whittingham Lane	0.77	24.75	9,033.75
Holts Lane	1.2	38.25	13,961.25
Omega 3b	12.89	412.50	150,562.50

Site	Maximum instantaneous flow l/s	Maximum volume m <sup>3</sup> /day	daily Maximum volume m <sup>3</sup> /year	annual
Carrwood Road	0.71	22.88	8,349.38	
Blackpool Road	2.71	86.63	31,618.13	
Sydney Road	2.87	91.88	33,534.38	
Foxdenton 2	1.88	60.00	21,900.00	
Halton Court	1.39	44.63	16,288.13	
St Helens Road	1.27	40.50	14,782.50	
Ellison Fold Way	4.02	128.63	46,948.13	
Mill Lane	0.59	18.75	6,843.75	
Moss House Road	1.01	32.25	11,771.25	
Keyfold Farm	1.51	48.38	17,656.88	
Arthurs Lane	2.36	75.38	27,511.88	
Thames Avenue	0.69	22.13	8,075.63	
Hampshire Road	0.56	18.00	6,570.00	
Sovereign Fold Road	1.16	37.13	13,550.63	
Gib Lane	1.816	58.13	21215.625	
Pemberton Colliery	3.14	100.50	36682.5	
Rossfield Park	2.44	78.00	28,470.00	
School Road, Kirkby-In-Furness	0.539	17.25	6296.25	
Plummers Meadow	1.148	36.75	13413.75	
Halewood Oaks	3.691	118.12	43115.625	
Bourne Road, Thornton	2.461	78.75	28743.75	

Table 3.15 Agreed limits to the bulk supply within the Wessex Water area

Site	Maximum instantaneous flow l/s	Maximum volume m <sup>3</sup> /day	daily Maximum volume m <sup>3</sup> /year	annual
Abbey Gardens	1.90	60.75	22173.75	
Station Road, Crewkerne	7.44	238.13	86915.63	
Wey Valley	3.79	121.13	44210.63	
Firs Road	0.60	19.13	6980.63	
Grovelands Way	1.54	50.63	18478.13	
Filands View	0.82	26.25	9581.30	
Swanage Grammar School	1.05	33.75	12318.75	
Liddymore Farm	2.93	93.75	34218.80	



Site	Maximum flow l/s	instantaneous	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Jurston Farm	2.23		71.25		26006.25	
Stalbridge Road	1.52		48.75		17793.75	
Station Road, Milborne Port	0.97		30.45		11114.30	
Lavington Lane	2.46		78.75		28743.75	
Three Lanes Way	0.48		15.37		5611.87	

Table 3.16 Agreed limits to the bulk supply within the Yorkshire Water area

Site	Maximum flow l/s	instantaneous	Maximum volume m <sup>3</sup> /day	daily	Maximum volume m <sup>3</sup> /year	annual
Brough	8.79		281.25		102,656.25	
Pitty Close Farm	2.93		93.75		34,218.75	
Minster Way	10.55		337.5		123,187.50	
Manse Farm	7.04		225.37		82,261.88	
Heathlands	5.37		121.5		44,347.50	
Breary Lane	3.74		10.03		3,662.13	
Market Place	1.54		49.12		17,930.63	
Hatfield Lane	9.38		300		109,500.00	
City Fields	8.61		275.62		100,603.13	
Stumpcross Lane	1.18		37.87		13,824.38	
Kingsgate East Phase	5.51		176.25		64,331.25	
Rawcliffe Road	4.69		150		54,750.00	
Church Lane	0.75		24		8,760.00	
Harland Way	1.02		32.62		11,908.13	
Monks Bridge	7.79		249.37		91,021.88	
Wheatley Hall Road 1	1.7		54.37		19,846.88	
Cookridge (Phase 2)	0.71		22.87		8,349.38	
Portholme Road	1.22		39		14,235.00	
H26, Grosvenor Road, Hull	1.77		53.62		19,573.13	
Doncaster Road	0.84		27		9,855.00	
Orchard Close	0.87		27.75		10,128.75	
Heathlands West	1.58		50.62		18,478.13	
Pit Lane	1.22		39		14,235.00	
Manor Farm (Phases 2,3,4 & 5)	7.1		227.25		82,946.25	
Wentworth Way	1.84		58.87		21,489.38	
Low Moor Side	1.48		47.25		17,246.25	

Site	Maximum instantaneous flow l/s	Maximum daily volume m <sup>3</sup> /day	Maximum annual volume m <sup>3</sup> /year
Granby Farm	1.11ls	35.62	13,003.13
Middle Deepdale	6.08	197.09	71,938.13
Willow Lane (Phase 2)	4.69	150	54,750.00
Swinnow Park	9.53	304.87	111,279.38
Brighthouse Road	1.07	34.12	12,455.63
Beckhill Approach	1.79	57.37	20,941.88
Southfield Lane	1.39	44.62	16,288.13
Topcliffe Road	1.77	36.37	13,276.88
Mount Vernon Road	0.49	15.75	5,748.75
Boroughbridge Road	3.12	99.75	36,408.75
Cocoa East	6.61	211.5	77,197.50
Woodside Quarry	2.684	85.87	31344.38
Throstle Rec Ground	1.23	38.92	14207.6
Wyvern Park	2.203	70.5	25732.5
Lockwood Farm	0.961	30.75	11223.75
Broomfield Farm	2.730	87.375	31891.87
Thirsk Road	1.805	57.75	21078.75

When expressed as a daily rate, the maximum annual volume represents the average rate of transfer that can be maintained over the year. There are peaks of demand within this, normally in summer months and/or dry years when high temperatures lead to temporary highs in consumption. The maximum allowable daily transfer is at a higher rate than the annual volume in order to take these peaks into account.

The maximum daily and annual volumes will be supplied by incumbent water companies save in exceptional circumstances when supplies could be reduced. The incumbent water companies are entitled to reduce bulk supplies in cases of Emergency or 'Force Majeure'. Droughts are considered an emergency.

#### FORCE MAJEURE

Bulk supply agreements held by IWNL have 'force majeure' clauses, some of which specifically mention droughts. It is believed that a drought would come under a force majeure clause.

IWNL have noted that where some incumbents list bulk supply agreements with water companies in their Draft Drought Plan, IWNL are not always included. Additionally, some incumbent Draft Drought Plans state volumes which are above our bulk supply agreements and are viewed as non-strategic to pursue in the event of a drought. Consequently, IWNL have not included reductions in bulk supply amounts in our Drought plan. However, as IWNL mirror

the incumbent's actions, including reductions during a Drought Level 4 event, the water imported into IWNL's sites will reduce through self-imposed restrictions similar to that of a force majeure.

#### DRINKING WATER SAFETY PLANS

IWNL complete a Regulation 27/28 for each inset. The Drinking Water Safety Plans (DWSP) include an assessment of the risks associated with water resources such as "Disturbance of sediment" caused by low reservoir levels and poor turnover management. These risks, where applicable, are carried from source to tap and assessed at each stage of our network.

#### OUTAGE

Outage is a temporary, short-term loss in deployable output caused by unforeseen or unavoidable events affecting any part of the water supply system. The supply failure would normally last at least 24 hours before being considered a legitimate outage event. However, interruptions longer than 3 months would be considered reductions in deployable output rather than outage.

As IWNL do not operate any sources or treatment works, any outage events upstream of the point of connection for the bulk supply will therefore be taken into account in the incumbent company's assessment of WAFU, but not IWNL's. Any issues relating to the reliability of the bulk transfer are allowed for under Headroom.

The short-term loss in deployable output has been calculated by the average time a customer is without water in a year. This average is used to forecast the total deployable output for the twenty five-year planning period.

#### DEMAND

In line with Government policy, all new properties will be metered using the latest AMR metering technology for domestic and commercial supplies. 100% of IWNL's properties have metres and all occupied properties are billed on measured consumption. Table 2.6 shows the number of properties that have been built to date.

Existing data on water consumption is heavily influenced by the significant volumes of water used during construction at each site for building supplies, batching plants, water mains testing, commissioning of wastewater networks, road sweeping, and gully cleaning.

A reasonable period of 'normal' consumption is needed, free from construction activities, before usable data on actual consumption can be obtained. In the meantime, demand must be estimated using industry-standard or average rates for the water industry as a whole, or typical values recorded elsewhere in the region, particularly in neighbouring areas.

Nevertheless, it is important to take account of key differences between inset areas and the surrounding region. For example, all properties in the inset areas are new and built to modern

standards of water efficiency. Metering is generally believed to lower per capita consumption and so the fact that all properties in the insets will be metered is an important consideration.

### DOMESTIC DEMAND

Domestic demand is estimated as the product of the number of properties times their occupancy (number of people per property) times the rate of per capita consumption (pcc – expressed in litres/person/day or l/p/d).

The Government's water strategy for England sets out a vision for the year 2050 which includes, *“Encouraging local authorities to adopt a tighter standard of 110 litres per person per day, compared with the current standard of 125 litres, for new homes where appropriate, requiring developers to install more efficient fixtures and fittings.”* Further adding that *“These measures...will help meet the ambitions set out in the National Framework for Water Resources to reduce average personal water consumption to 110 litres per person per day by 2050.”* (Defra 2021)

New housing (which forms the whole of IWNL's asset base) should be built to the current standards of either 125 l/p/d/ for non-water stressed areas and 110 l/p/d for water stressed areas, with the aim of reducing this to 110 l/p/d by 2050. For initial planning purposes we have assumed a constant PCC of 125 or 110 l/p/d for domestic demand throughout the planning period and used a weighted average by incumbent. This has been calculated based on measured metered consumption in each zone. This reduces year by year to reach 110 l/p/d for all sites by 2050.

PCC is reduced to reach the government's target of 110 PCC by 2050. This reduction occurs gradually in the 25-year planning period. It is expected that this reduction will not occur linearly as displayed in the forecast, but rather in steps due to innovation, changes of regulation, and implementation of new water saving devices alongside demand management.

The number of domestic connections at full development in each inset area has been defined by the developers, although there is uncertainty about the rate of development and when full build-out will be achieved. This will depend on the rate of house sales which in turn will depend to a large extent on the 'economic recovery' and the state of the national and local economy. For the purposes of demand forecast, an average build out rate has been used and applied to all insets. This rate will undoubtedly vary from year to year but as it is thought that the development of new sources of supply within the planning period will not be necessary, the rate of house building is not critical unless more than one bulk supply connection needs to be made.

With the number of domestic and commercial properties at full development already known, the only uncertainty in numbers of population served is in the rate of occupancy. For planning purposes, we have used the UK average household size of 2.4 people per household (Ons.gov.uk, 2020).

## NON-DOMESTIC DEMAND

The number of non-domestic connections at full development in each inset area has been defined by the developers; the developments include a mix of both commercial and educational establishments.

Water demand in commercial developments is related to internal floor area and the number of people working or living there. The property mix can vary enormously, as can water consumption expressed per person or per square metre. Commercial demand has been forecast with the use metered consumption data and applying the average consumption per commercial property.

## WATER EFFICIENCY

Water efficiency is an integral part of resource planning and IWNL has a statutory duty to promote the efficient use of water. Key to this is support for customer behavioural change. We believe that it is important to support and assist customers with these changes and this will be the key strand of our work during the period along with promoting our environmental policy objectives. All new buildings will be designed with water efficiency in mind.

Our company publication entitled “*Using water wisely at home*” sets out a programme of water efficiency initiatives that focus on education, advice and raising awareness. This publication is provided free to every new customer and is available to view on the IWNL web site.

IWNL has a dedicated water resource webpage which provides water saving tips to domestic and non-domestic customers as well as information on the current drought level and associated advice/restrictions.

Our company issues Summer and Winter newsletters to all our domestic customers which include details on detecting leaks and water wise tips.

All bills include a table to show customers how their water consumption compares to industry averages for number of occupants, this additional information will enable customers to control their own usage.

Customer consumption from meter reads is monitored to either investigate for leakage or issue letters to customers advising that they are high users along with tips on being water wise.

Call centre agents are trained on how to discuss / direct customers to our water wise sections of the website and how to talk customers through leak detection techniques.

During the next five years, IWNL will monitor and utilise site-specific consumption data to target the delivery of water-efficiency messages to our customers in specific zones and use metering data to evaluate the efficacy of these messages.

## LEAKAGE

Some degree of leakage from the distribution network is unavoidable. It may occur from

storage facilities, transmission mains and distribution mains (often called 'distribution' or 'company-side' losses), or from service connections up to the customers' meter (sometimes called USPL or 'Underground Supply Pipe Leakage'). The latter are also referred to as 'customer-side losses'.

Leakage is normally the largest component of losses from a water supply system, but it is not the only component. Illegal connections may constitute real losses from the system while meter inaccuracies may give rise to 'apparent' losses. Together with leakage, these 'real' and 'apparent' losses make up the 'unaccounted-for water' component (UFW).

Leakage performance can be expressed in several ways. Customer-side leakage is often expressed in litres/property/day while distribution leakage may be more appropriately expressed in m<sup>3</sup>/kilometre/day. The former allows for different densities of housing while the latter takes into account the length of the distribution main from source works to customer. Leakage is also often expressed in terms of % of water put into distribution. These indicators can be useful for comparing the performance of similar systems, although care must be taken when comparing values from different systems or areas with widely varying characteristics.

In our inset application, IWNL has agreed target rates for 'unaccounted-for-water' of 5% of distribution input. Most of this will be leakage and the terms 'leakage' and 'unaccounted-for water' are taken as synonymous in the context of our supply-demand balance.

On the basis that that IWNL is predominantly constructing and operating new welded plastic systems and all supplied properties are new, water efficient and metered, UFW rates of around 4.5% are expected to be achievable. IWNL have therefore assumed that we will be able to maintain distribution losses at approximately 4.5% of distribution input towards the end of the planning period. The 4.5% is a target for losses which includes a potential 2% for meter inaccuracies as the meters age and 2.5% for pure distribution losses.

IWNL are also in the unique position of having 100% metering penetration. This enables IWNL to actively monitor our level of losses with real data rather than models of assumption. Any anomalies can be investigated and rectified. IWNL will also look to adopt a leakage maintenance strategy as our networks age. Eight top of the range, hydrophone noise loggers have been purchased and are due to be delivered in October 2022 which can be deployed to pinpoint the location of any leakage over a wide area where we suspect leakage to be occurring. IWNL also regularly send teams out to visually inspect our region, identifying areas of wet ground for potential leaks.

The vast majority of IWNL's sites are at an early stage of development and the take up of connected properties is low due to the downturn in housing markets. Meaningful assessments of unaccounted-for supply pipe background leakage and operational usage will therefore be difficult to make until several years of operational metering data are available. In the meantime, regular monitoring of demands and trends in readings from bulk meters will continue.

All of IWNL's meter base are fitted with AMR devices which enable remote meter reading through 'drive-by' collection. The meter readings will flag any customer-side leakage via

leakage alarms which are triggered when there is constant flow through a customer meter. All leakage alarms are actioned by our customer services department where the customer is contacted and informed of the issue and the actions required to rectify.

## TARGET HEADROOM

Headroom is a planning allowance that is used to provide a buffer in the forecast supply-demand balance. Target Headroom is defined as follows (UKWIR 1998), "The minimum buffer that a prudent water company should allow between supply (including raw-water imports and excluding raw-water exports) and demand to cater for specified uncertainties (except those due to outages) in the overall supply-demand balance. Introducing this into the overall supply-demand balance will help to ensure that the water company's chosen level of service can be achieved."

Available headroom is the difference between demand and WAFU (the water available for use) at any given time. It will vary with time as demand increases, new supplies are brought on-line to meet increasing demand, and uncertainty increases the further into the future you go.

If Available Headroom is greater than or equal to Target Headroom, then the desired level of service should be achieved. If Available Headroom falls below the target value, the water company will face the risk of not achieving its stated level of service.

IWNL have used a method developed by UKWIR in 1998 (UKWIR 1998) to estimate target headroom for the current WRMP. Target headroom has been calculated using the same method as WRMP19, this is calculated to rise from 6.7 in 2022/2023 to 7.9% in 2049/50 for all IWNL's WRZs.

## EFFECT OF CLIMATE CHANGE

### Effect on Supply

An increase in target headroom resulting from climate change has not been added to IWNL's supply model since our water is supplied by a point of connection to an incumbent water supply. The bulk supply agreements will not change as a result of climate change and the contracted quantities are not restricted by a change in demand which is a consequence of climate change.

### Effect on Demand

Each zone has been assessed for its vulnerability using the Met Office's 2018 UK Climate Projections (UKCP18) predictions and after liaison with incumbent water companies. UKCP18 predicts a medium vulnerability across England.

Factors found to be statistically significant in determine house water consumption (UKWIR2013b) are:

- Sunshine Hours

- Maximum Temperature
- Rainfall.
- Property Type.
- Month.

IWNL have used UKCP18 climate projections to consider how these factors influence domestic demand. Weather-demand relationships have been formed and these have been used to derive the estimate of climate change on household water demand. The increase in target headroom for each zone has been evaluated to ensure consistency with the incumbent water companies.

#### **4 OPTION APPRAISAL**

IWNL's unaccounted for water has a target of 5% of distribution input. IWNL have considered a reduction of this target to 4.5%. This reduction will be achieved through monitoring and repairing leaks on the network. Where agreed with incumbents, IWNL will install data loggers on the bulk meter. Where the incumbent will install a data logger on the bulk meter, arrangements will be made so that IWNL will be granted access to view this data. Data loggers will enable IWNL to monitor night-time flows to estimate leakage and respond to incidents promptly.

#### **5 WATER RESOURCES ZONES DETAILS**

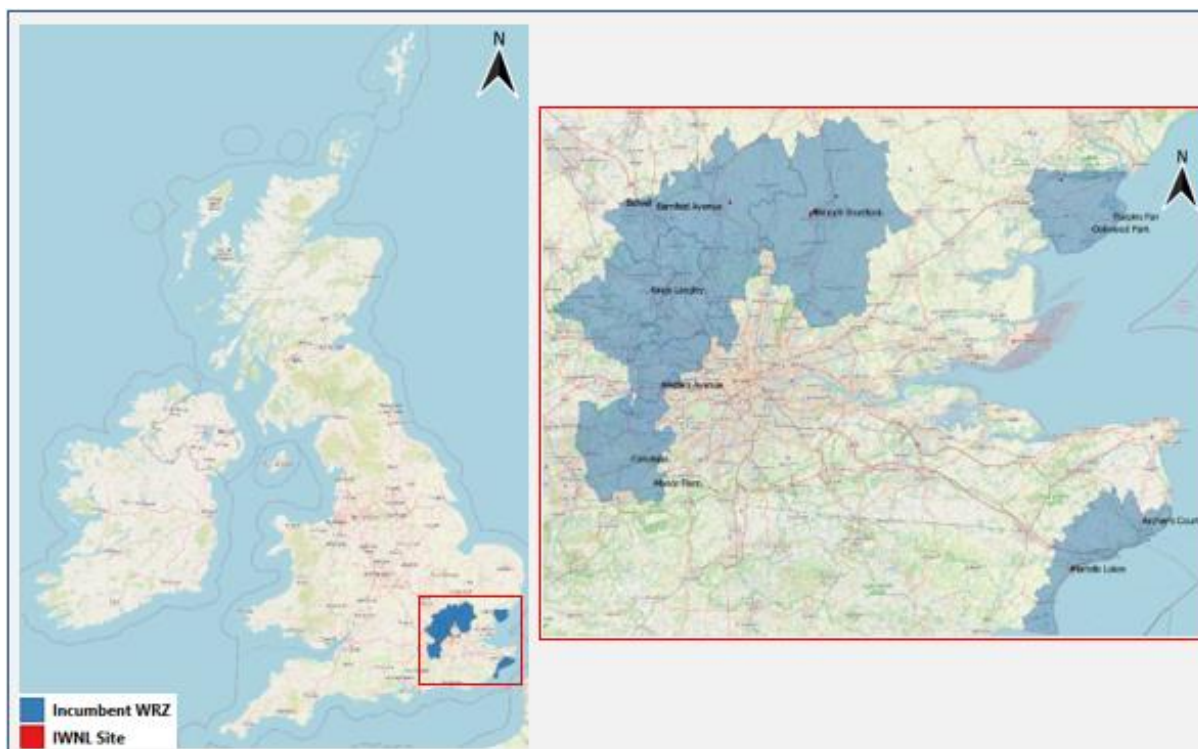
##### **INTRODUCTION**

Each Water Resource Zone (WRZ) is defined by the incumbent water company who supplies the water via a bulk supply point. The methodology and assumptions used to construct the supply-demand balance are described in section 3. However, the balance itself is different for each WRZ and some of the values used to estimate demand also vary. The detailed supply-demand balance for each WRZ is totalled by the incumbent.

##### **AFFINITY WATER**

IWNL currently operate twenty-three sites in the Affinity Water supply area. These are shown on Figure 5.1 below.





**Figure 5.1 Affinity Water Supply Area**

#### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 10,961 dwellings across the Affinity Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.1 on a site-by-site basis.

#### CURRENT DEMANDS

Currently 2,771 (25%) out of a projected final total of 10,961 domestic units are connected. The current water demand across IWNL sites in the Affinity Water supply area is 2,429.19 m<sup>3</sup>/d.

#### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 10,961 domestic properties and 68 commercial units of varying type at full build-out. The precise rate of development is not known as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 1,650 units will be built each year.

#### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 3,295.10 m<sup>3</sup>/d with an additional 333.25 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 911.40 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.2 and 5.3.

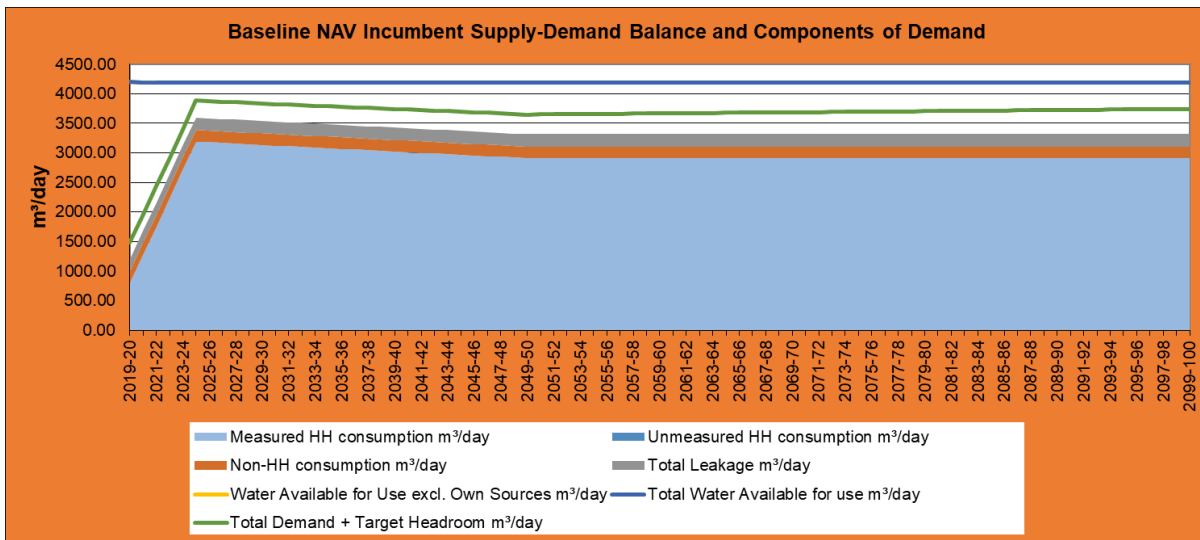


Figure 5.2 Baseline Supply-Demand Balance for Affinity Water Area

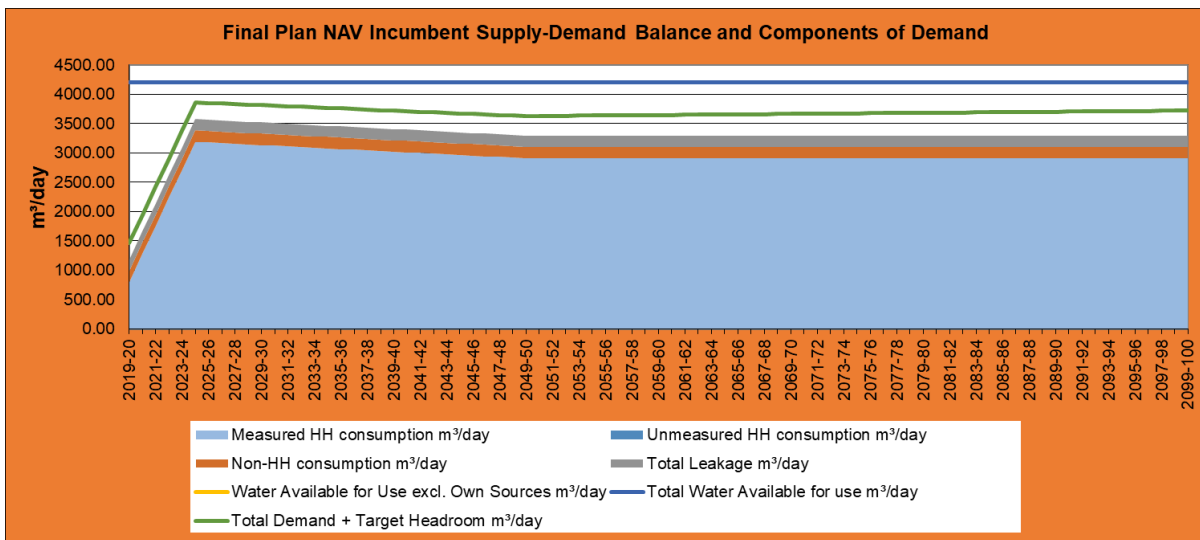


Figure 5.3 Final Plan Supply-Demand Balance for Affinity Water Area

### ANGLIAN WATER

IWNL currently operate 115 sites in the Anglian Water supply area. These are shown on Figure 5.4 below.



**Figure 5.4 Anglian Water supply area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 40260 dwellings across the Anglian Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.2 on a site-by-site basis.

### CURRENT DEMANDS

Currently 7456 (18.5%) out of a projected final total of 40260 domestic units are connected. The current water demand across IWNL sites in the Anglian Water supply area is 10410 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 40260 domestic properties and 115 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 6658 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 11360 m<sup>3</sup>/d with an additional 1490 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 6620 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.5 and 5.6.

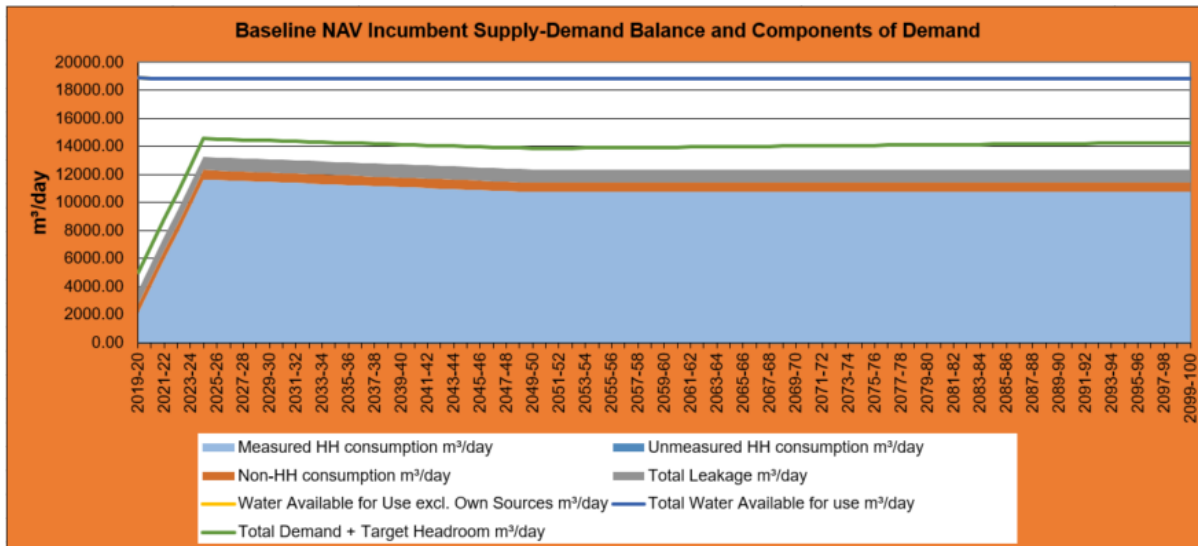


Figure 5.5 Baseline Supply-Demand Balance for Anglian Water Area

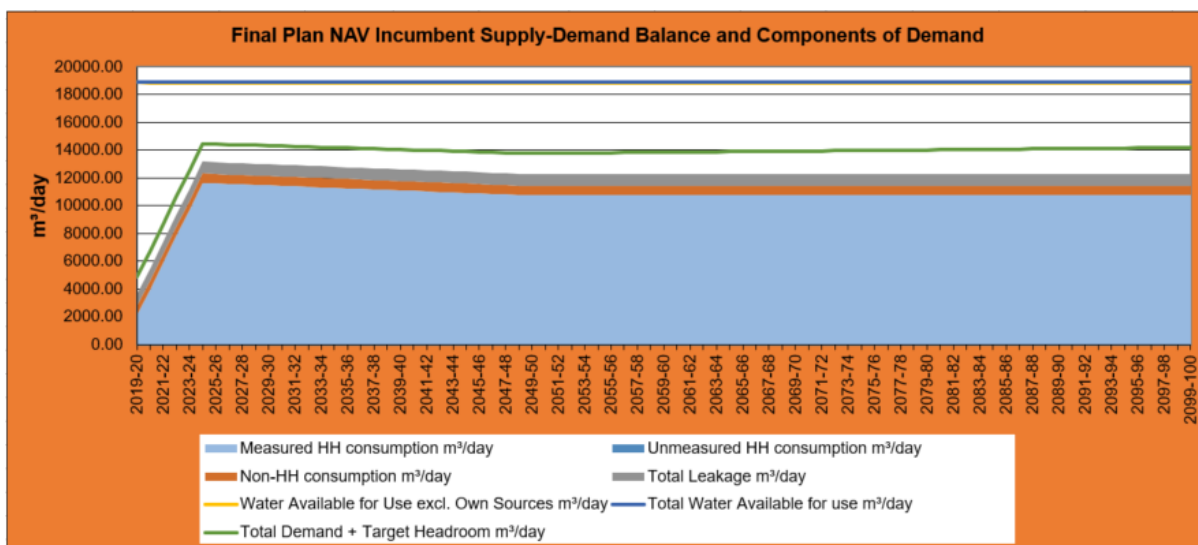
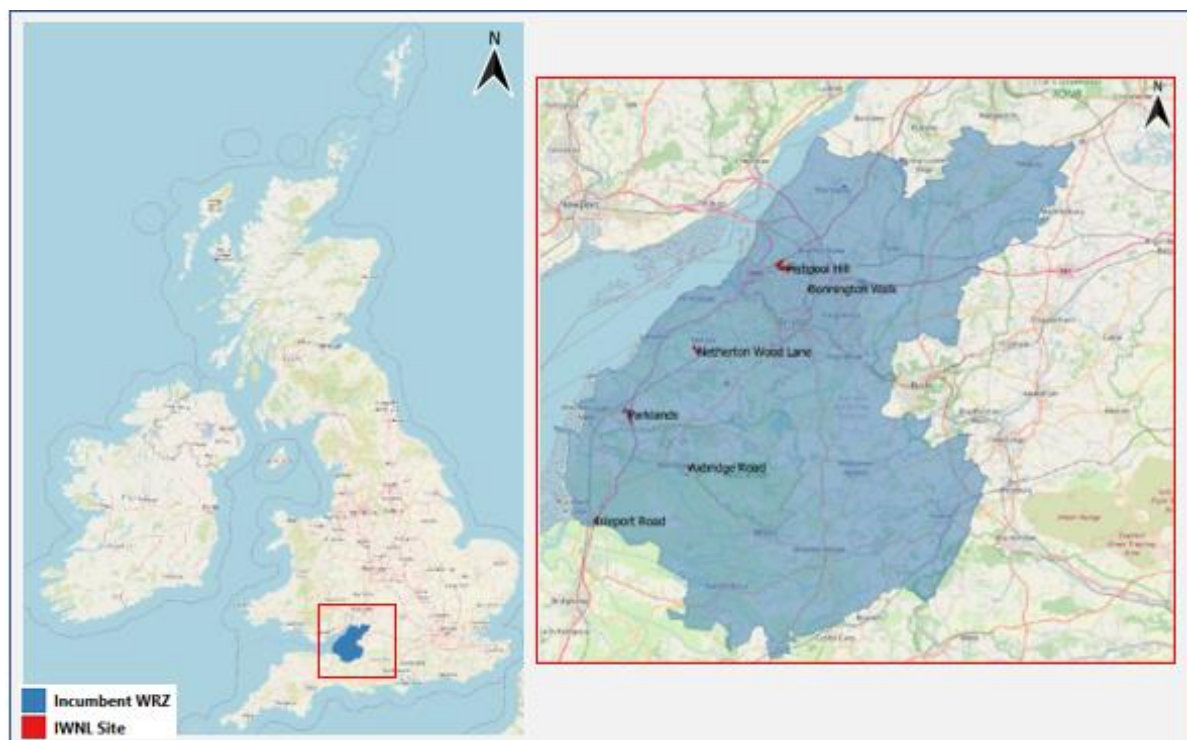


Figure 5.6 Final Plan Supply-Demand Balance for Anglian Water Area

**BRISTOL WATER**

IWNL currently operate 10 sites in the Bristol Water supply area. These are shown on Figure 5.7 below.



**Figure 5.7 Bristol Water Supply Area**

#### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 4,979 dwellings across the Bristol Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.3 on a site-by-site basis.

#### CURRENT DEMANDS

Currently 196 (4%) out of a projected final total of 4,979 domestic units are connected. The current water demand across IWNL sites in the Bristol Water supply area is 617.23 m<sup>3</sup>/d.

#### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 4,979 domestic properties and 1 commercial unit of varying type at full build-out. The precise rate of development is not known as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 598 units will be built each year.

#### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 1414.24 m<sup>3</sup>/d with an additional 148.07 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period

with an available headroom of 454.80 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.8 and 5.9.

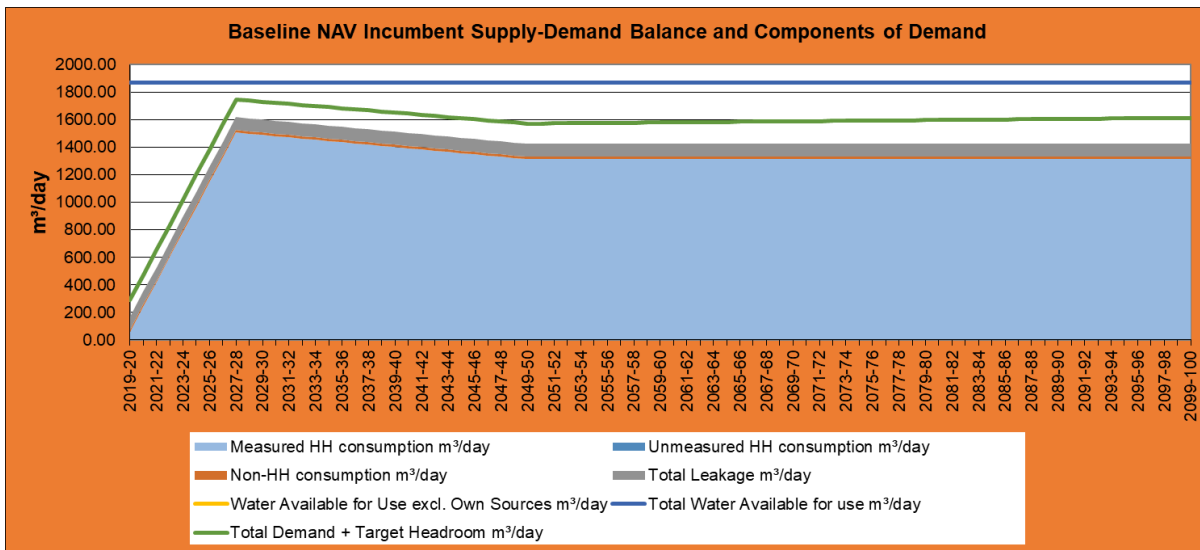


Figure 5.8 Baseline Supply-Demand Balance for Bristol Water Area

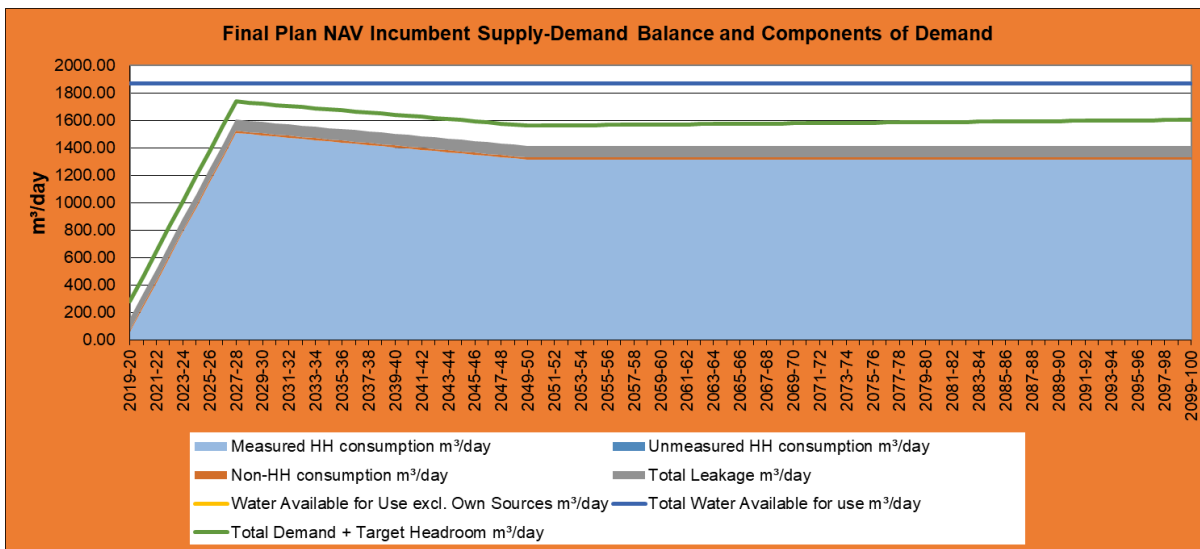


Figure 5.9 Final Plan Supply-Demand Balance for Bristol Water Area

CAMBRIDGE WATER

IWNL currently operate 1 site in the Cambridge Water supply area. These are shown on Figure 5.10 below.



**Figure 5.10 Cambridge Water Supply Area**

#### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 1,312 dwellings across the Cambridge Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.4 on a site-by-site basis.

#### CURRENT DEMANDS

Currently 169 (13%) out of a projected final total of 1,312 domestic units are connected. The current water demand across IWNL sites in the Cambridge Water supply area is 132.97 m<sup>3</sup>/d.

#### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 1,312 domestic properties and 12 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 60 units will be built each year.

#### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 407.71 m<sup>3</sup>/d with an additional 38.98 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 84.29 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the

forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.11 and 5.12.

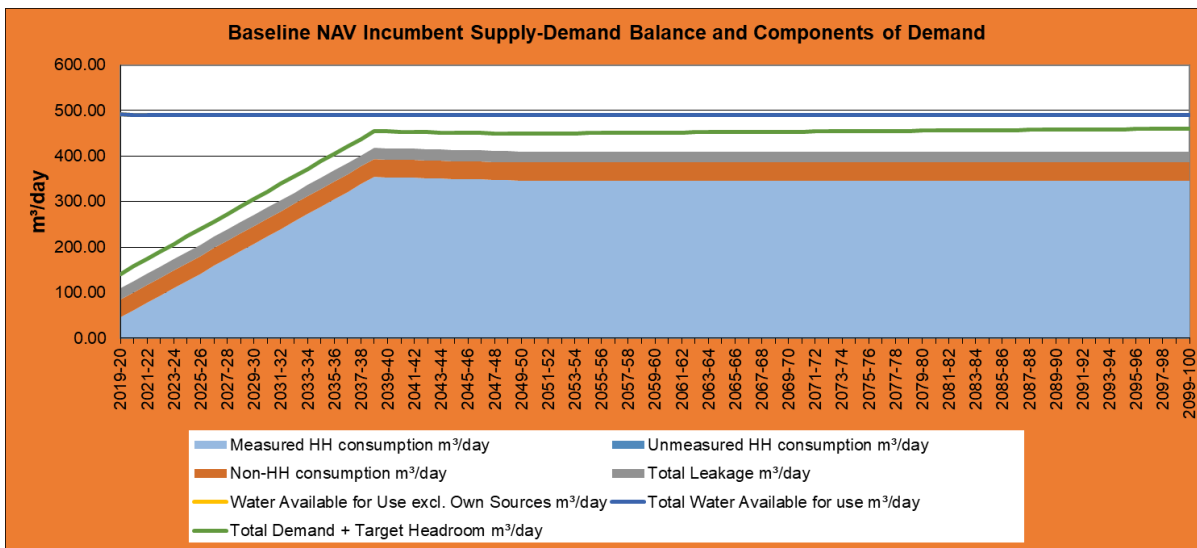


Figure 5.11 Baseline Supply-Demand Balance for Cambridge Water Area

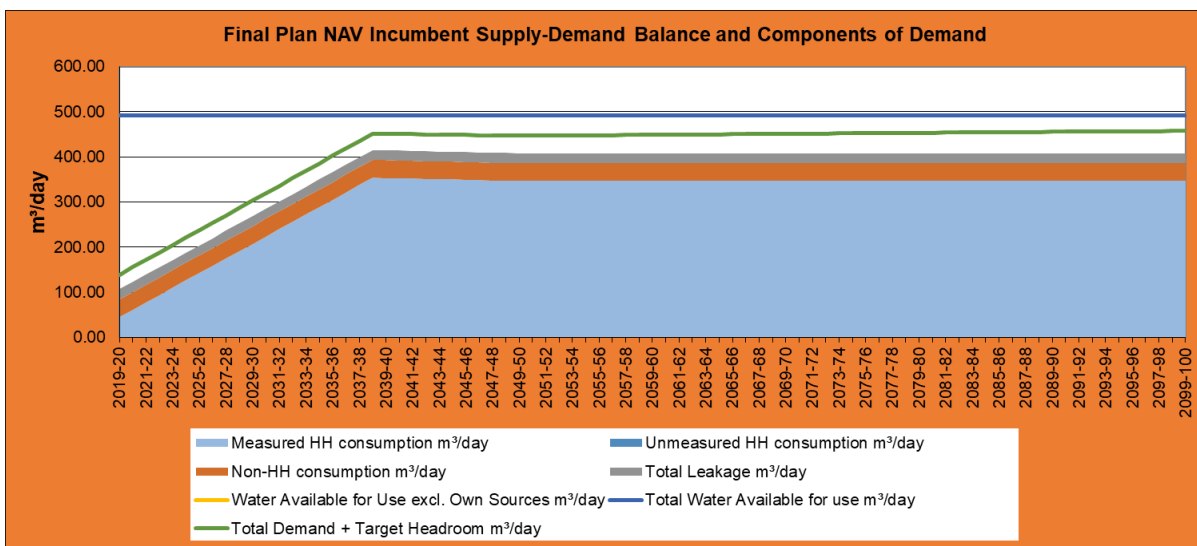


Figure 5.12 Final Plan Supply-Demand Balance for Bristol Water Area



## ESSEX AND SUFFOLK WATER



**Figure 5.13 Essex and Suffolk Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 2,853 dwellings across the Essex and Suffolk Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.5 on a site-by-site basis.

### CURRENT DEMANDS

Currently 661 (23%) out of a projected final total of 2,853 domestic units are connected. The current water demand across IWNL sites in the Essex & Suffolk Water supply area is 869.72 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 2,853 domestic properties and 7 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 731 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 848.37 m<sup>3</sup>/d with an additional 84.76 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 221.50 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.14 and 5.15.

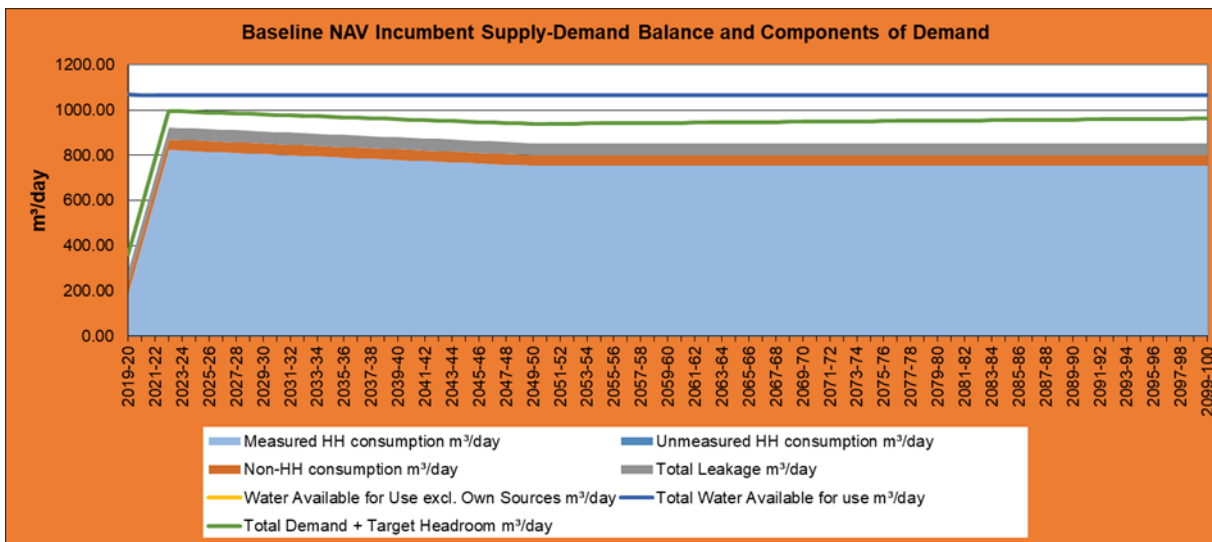


Figure 5.14 Baseline Supply-Demand Balance for Essex and Suffolk Water Area

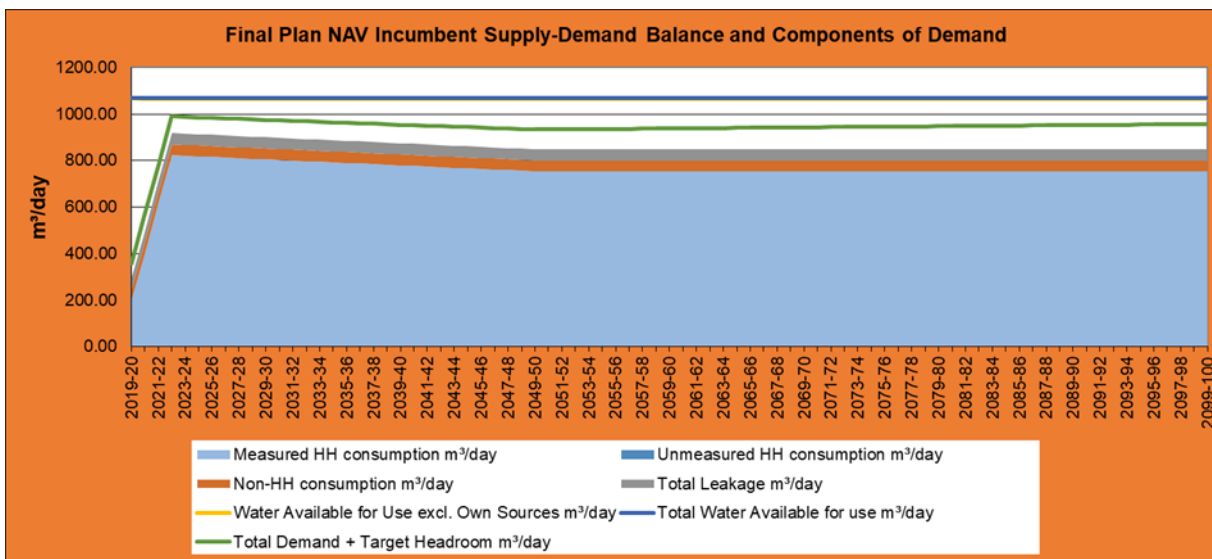


Figure 5.15 Final Plan Supply-Demand Balance for Essex and Suffolk Water Area

## NORTHUMBRIAN WATER



**Figure 5.16 Northumbrian Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 7517 dwellings across the Northumbrian Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.6 on a site-by-site basis.

### CURRENT DEMANDS

Currently 627 (8.34%) out of a projected final total of 7517 domestic units are connected. The current water demand across IWNL sites in the Northumbrian Water supply area is 1520 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 7517 domestic properties and 25 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 113 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 2190 m<sup>3</sup>/d with an additional 230 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 800 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.17 and 5.18.

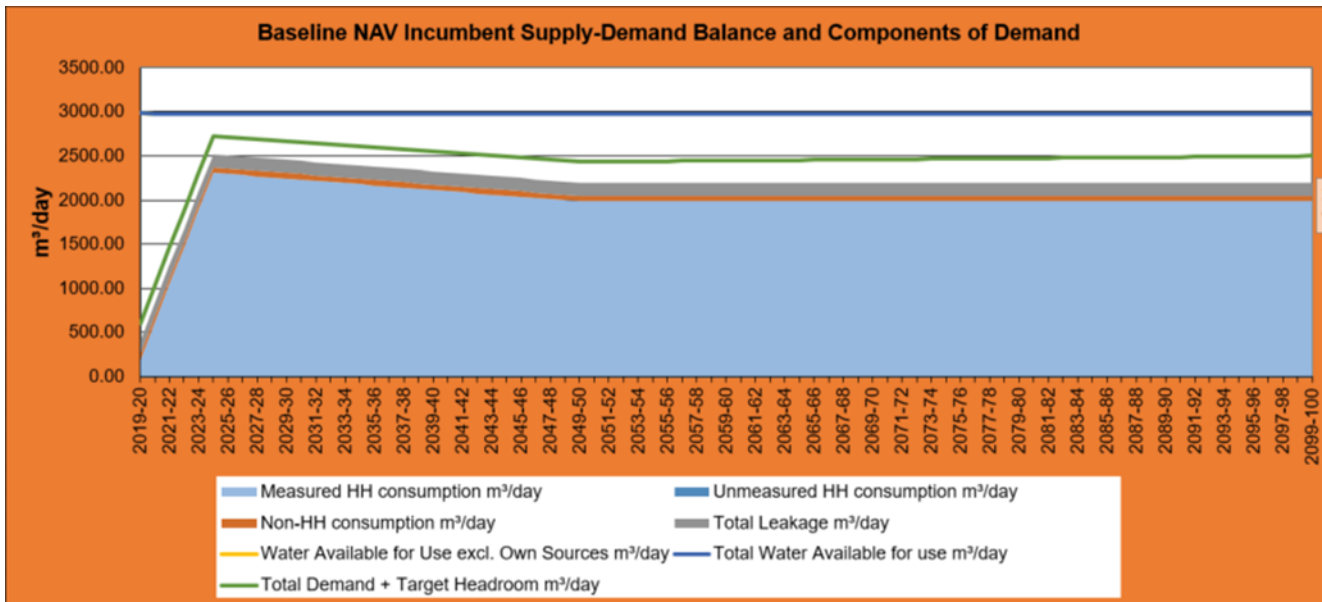


Figure 5.17 Baseline Supply-Demand Balance for Northumbrian Water Area

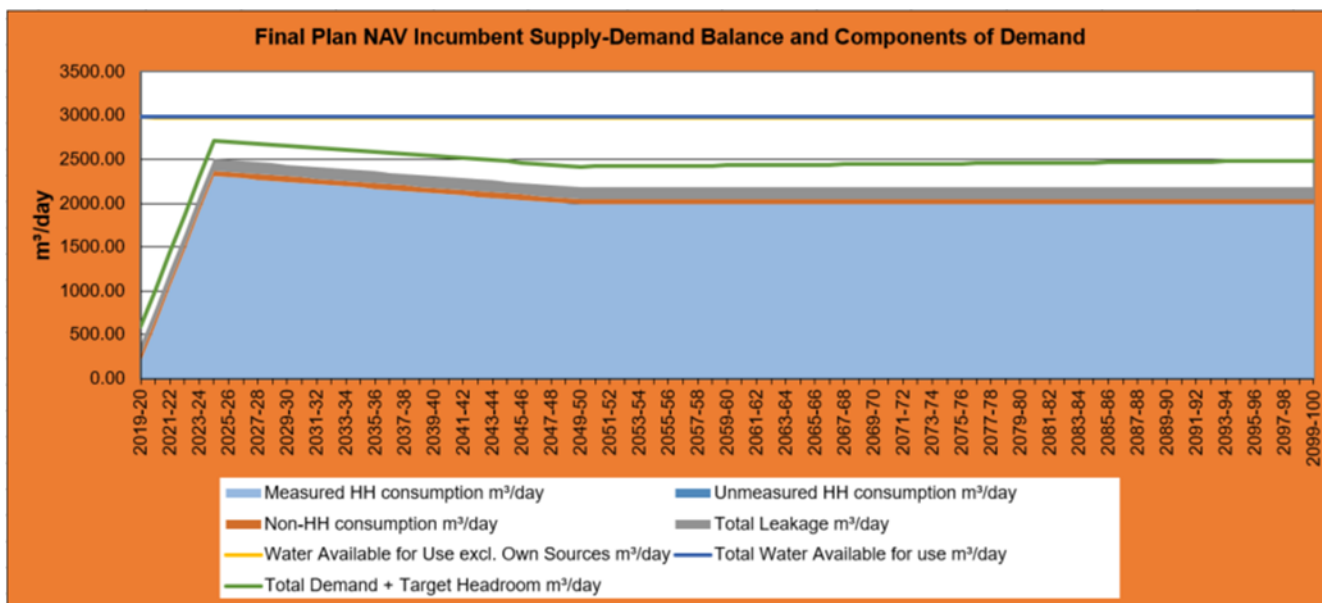


Figure 5.18 Baseline Supply-Demand Balance for Northumbrian Water Area

## PORTSMOUTH WATER



**Figure 5.19 Portsmouth Water Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 2,320 dwellings across the Portsmouth Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.7 on a site-by-site basis.

### CURRENT DEMANDS

Currently 289 (12%) out of a projected final total of 2,320 domestic units are connected. The current water demand across IWNL sites in the Portsmouth Water supply area is 695.79 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 2,320 domestic properties and 46 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 1,016 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages Total demand in 2049/50 (including leakage) is estimated to be 683.91 m<sup>3</sup>/d with an additional 70.55 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 206.59 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.20 and 5.21.

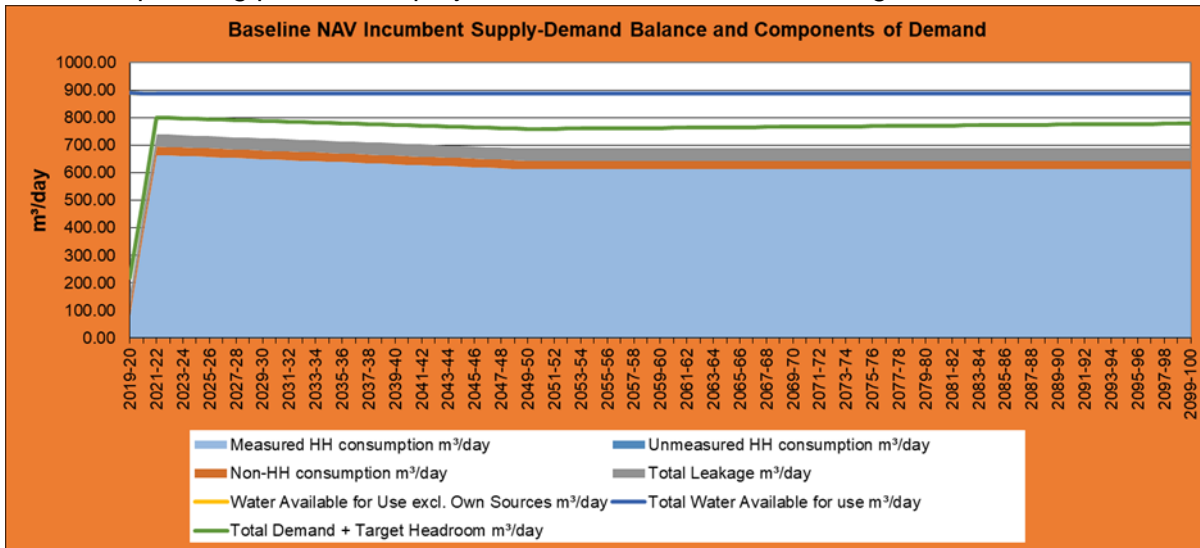


Figure 5.20 Baseline Supply-Demand Balance for Portsmouth Water Area

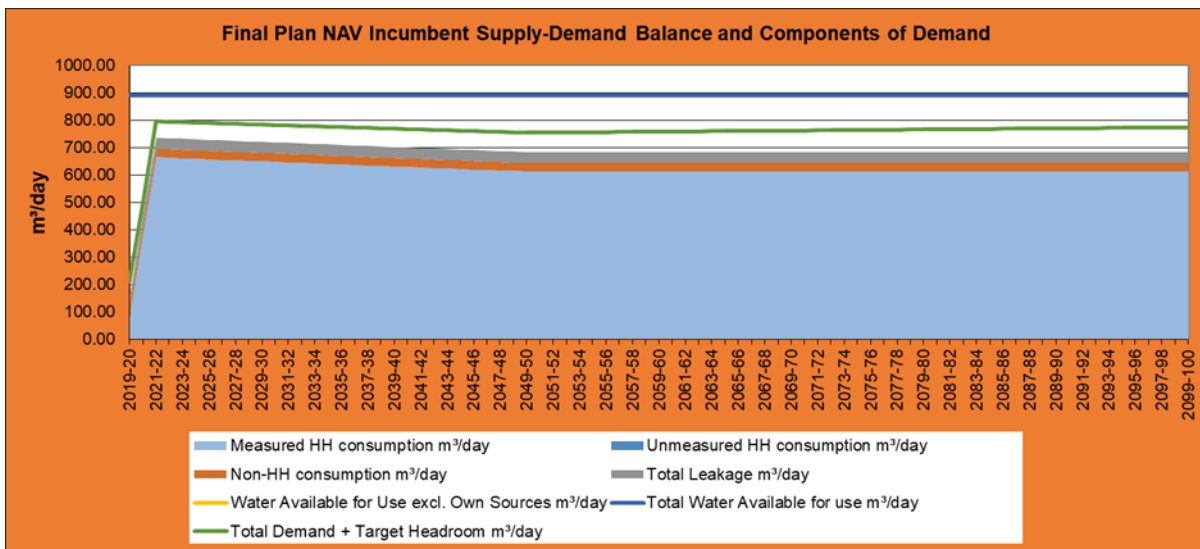
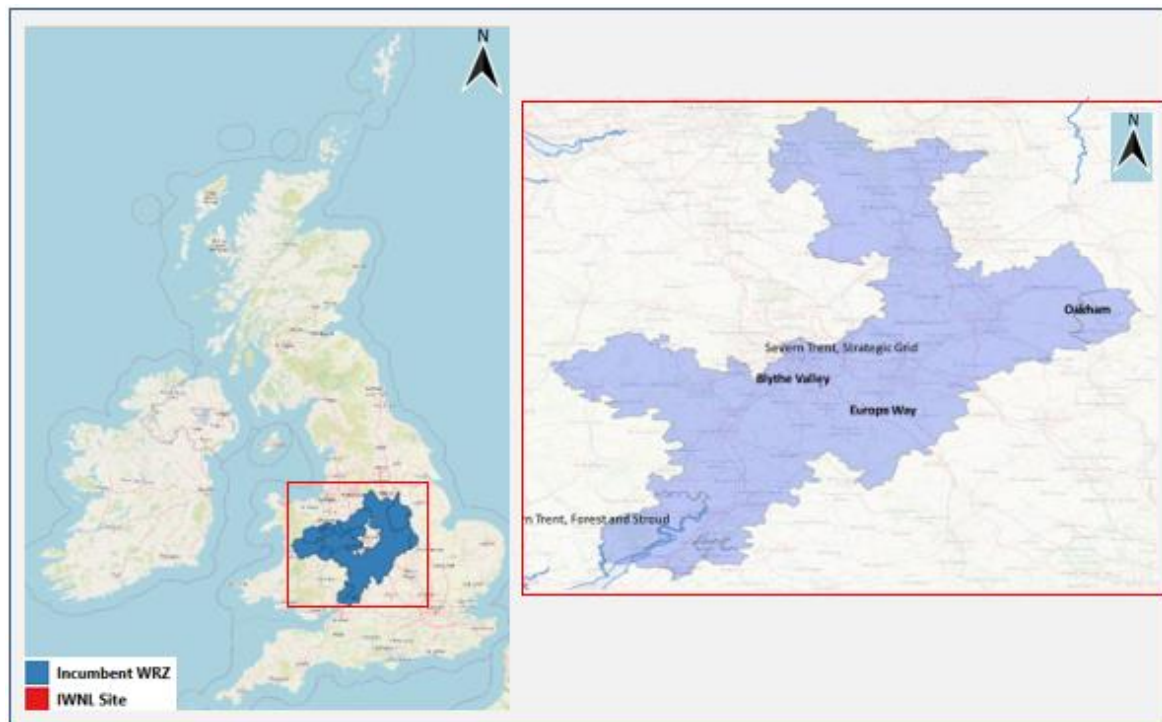


Figure 5.21 Final Plan Supply-Demand Balance for Portsmouth Water Area

## SEVERN TRENT WATER



**Figure 5.22 Severn Trent Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 17,068 dwellings across the Severn Trent Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.8 on a site-by-site basis.

### CURRENT DEMANDS

Currently 2425 (14%) out of a projected final total of 17,068 domestic units are connected. The current water demand across IWNL sites in the Severn Trent Water supply area is 3,213.72 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 17,068 domestic properties and 68 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 2,933 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages Total demand in 2049/50 (including leakage) is estimated to be 4,885.72 m<sup>3</sup>/d with an additional 506.98 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 1,513.74 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.23 and 5.24.

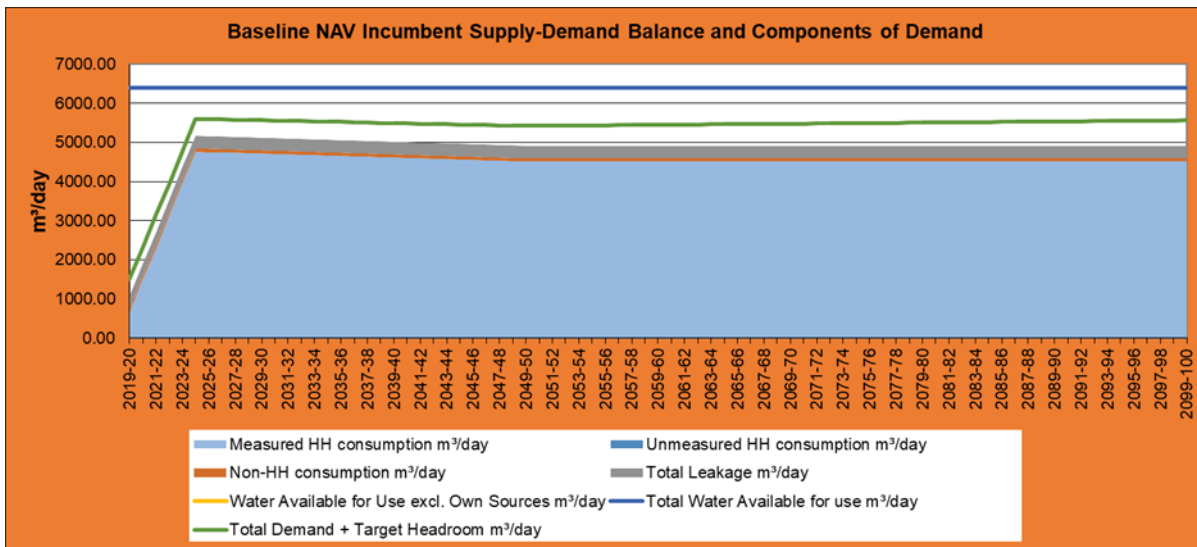


Figure 5.23 Baseline Supply-Demand Balance for Severn Trent Water Area

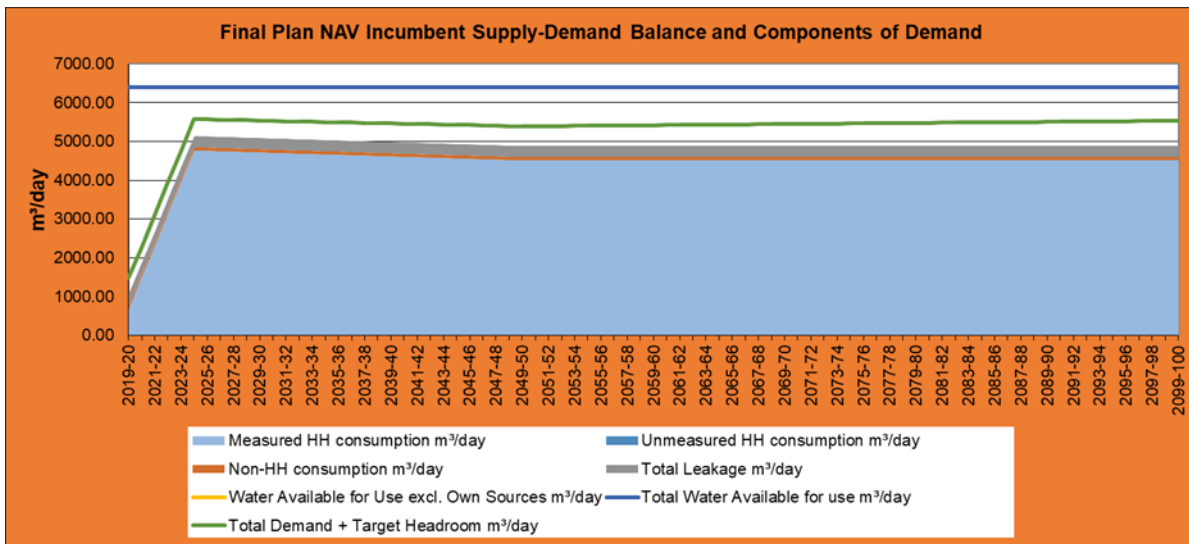


Figure 5.24 Final Plan Supply-Demand Balance for Severn Trent Water Area



## SOUTH EAST WATER



**Figure 5.25 South East Water Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 14,276 dwellings across the South East Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.9 on a site-by-site basis.

### CURRENT DEMANDS

Currently 660 (5%) out of a projected final total of 14,276 domestic units are connected. The current water demand across IWNL sites in the South East Water supply area is 1,912 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 14,276 domestic properties and 58 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 1,707 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 4,077.24 m<sup>3</sup>/d with an additional 432.48 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 1,381.78 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.26 and 5.27.

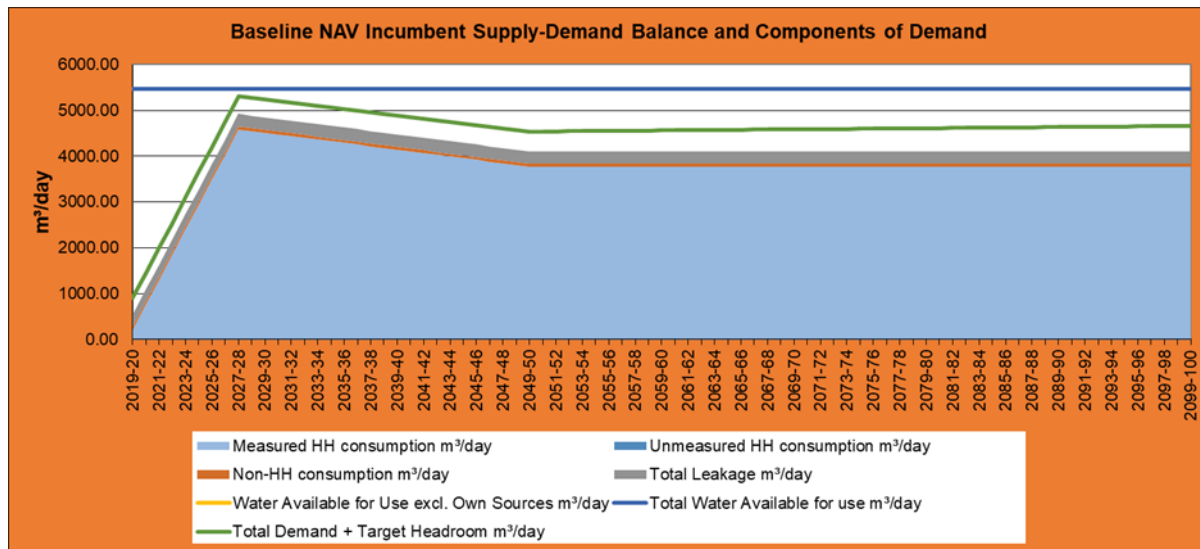


Figure 5.26 Baseline Supply-Demand Balance for South East Water Area

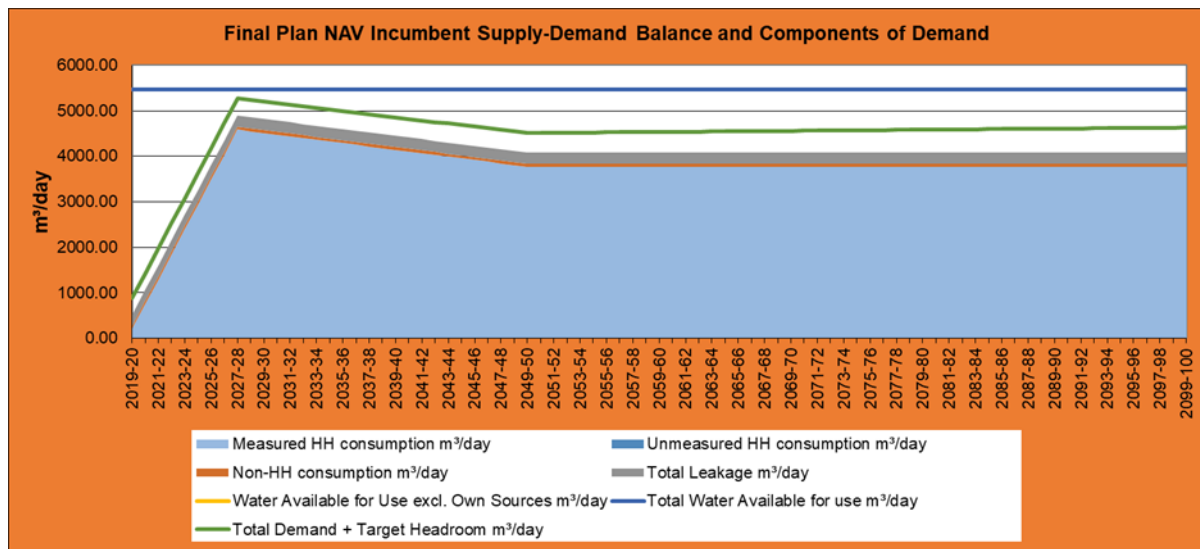
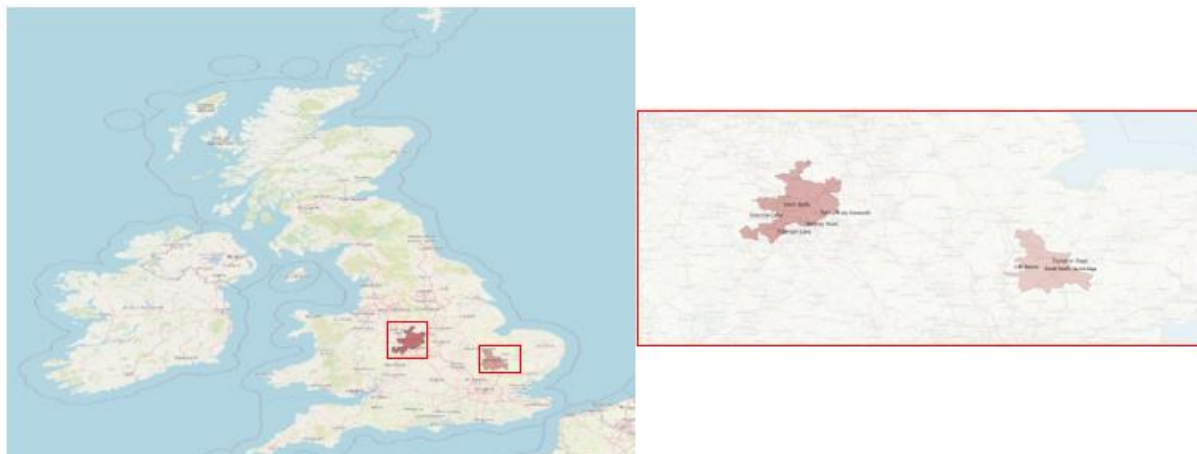


Figure 5.27 Final Plan Supply-Demand Balance for South East Water Area

## SOUTH STAFFS WATER



**Figure 5.28 South Staffs Water Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 1872 dwellings across the South Staffs Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.10 on a site-by-site basis.

### CURRENT DEMANDS

Currently 174 (9.29%) out of a projected final total of 1872 domestic units are connected. The current water demand across IWNL sites in the South Staffs Water supply area is 360 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 1872 domestic properties and 1 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 340 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages Total demand in 2049/50 (including leakage) is estimated to be 530 m<sup>3</sup>/d with an additional 50 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 160 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.29 and 5.30.

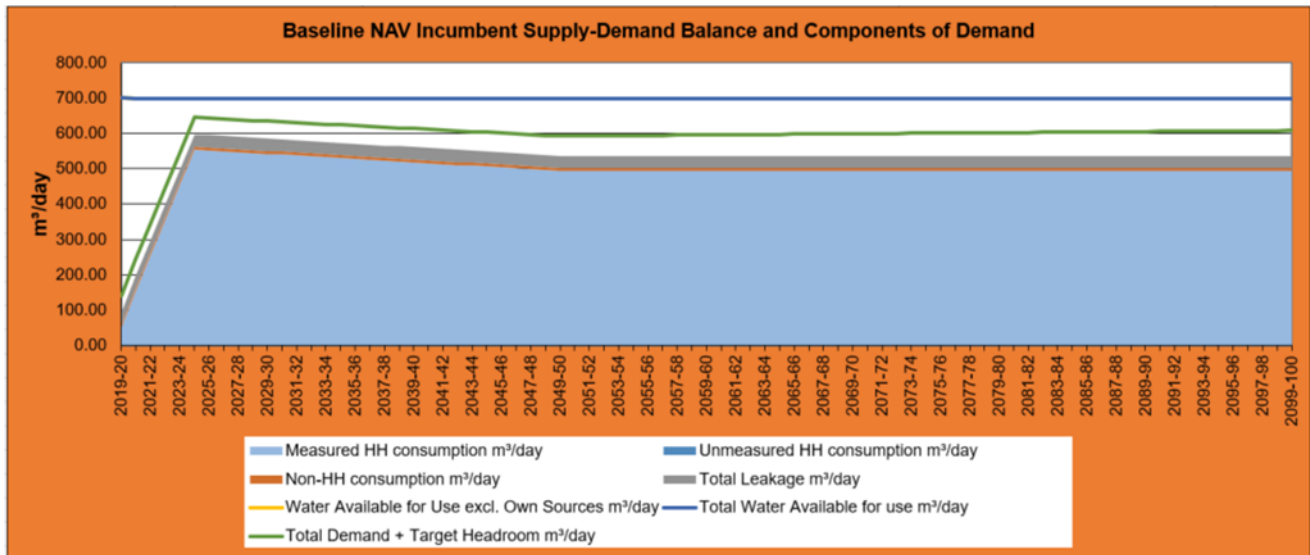


Figure 5.29 Baseline Supply-Demand Balance for South Staff Water Area

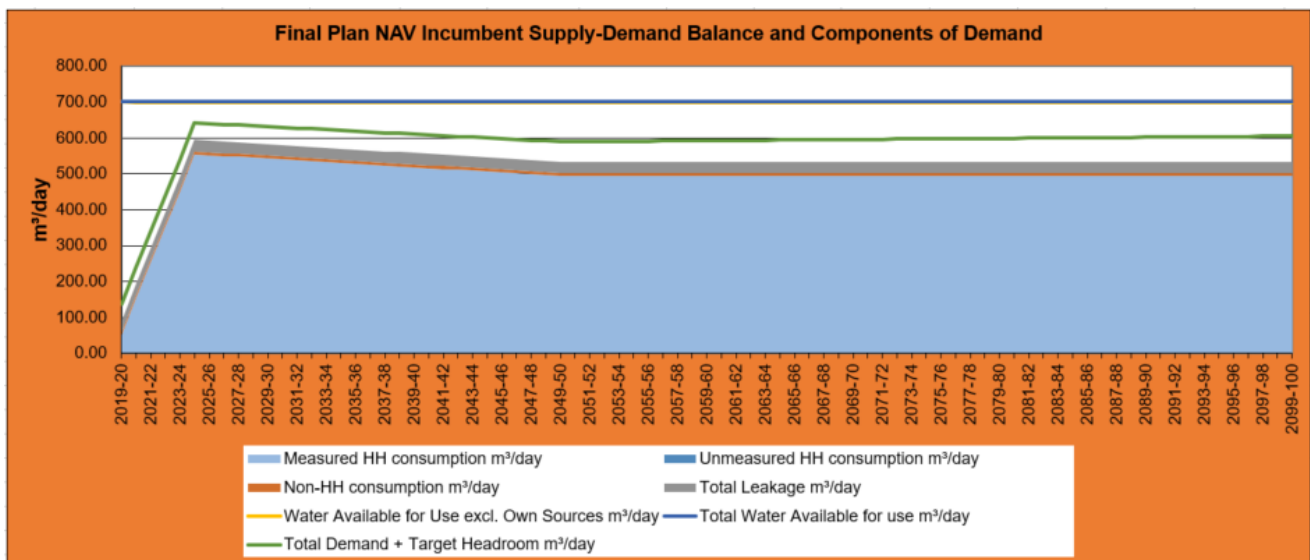


Figure 5.30 Final Plan Supply-Demand Balance for South Staff Water Area

## SOUTH WEST WATER



**Figure 5.31 South West Water Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 1,100 dwellings across the South West Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.11 on a site-by-site basis.

### CURRENT DEMANDS

Currently 0 (0%) out of a projected final total of 1,100 domestic units are connected. The current water demand across IWNL sites in the South West Water supply area is 247.15 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 1,100 domestic properties and 4 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 275 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages Total demand in 2049/50 (including leakage) is estimated to be 311.63 m<sup>3</sup>/d with an additional 37.38 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 160.22 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.32 and 5.33.

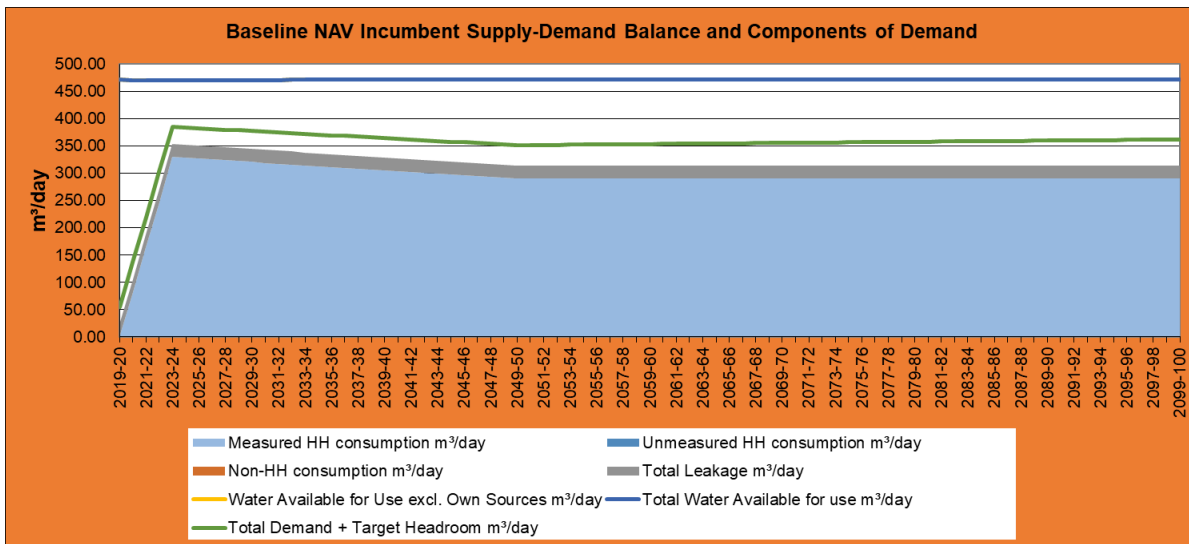


Figure 5.32 Baseline Supply-Demand Balance for South West Water Area

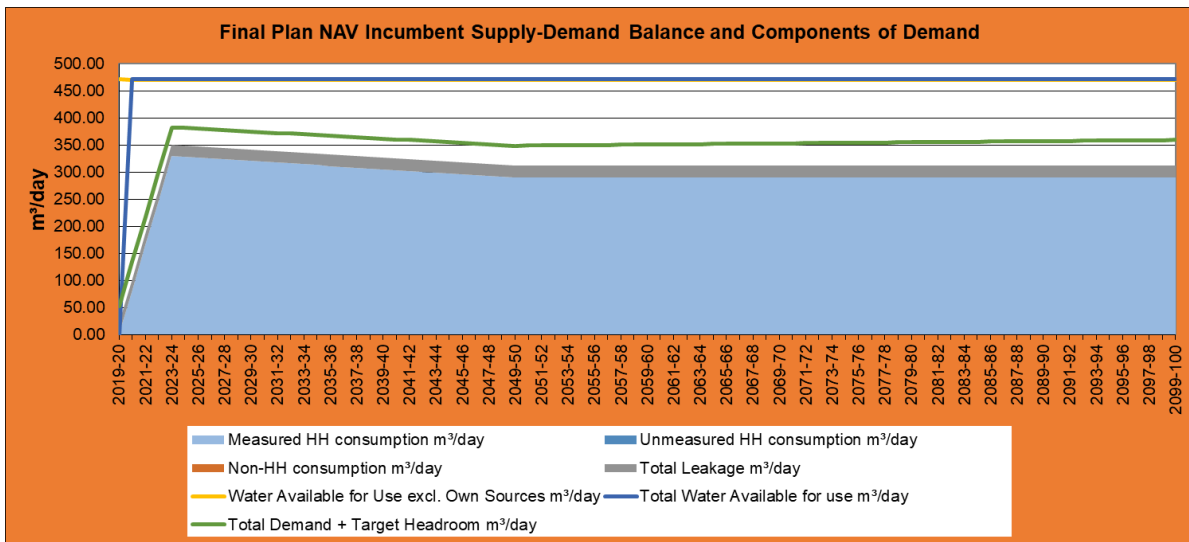


Figure 5.33 Final Plan Supply-Demand Balance for South West Water Area

## SOUTHERN WATER



**Figure 5.34 Southern Water Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 8,005 dwellings across the Southern Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.12 on a site-by-site basis.

### CURRENT DEMANDS

Currently 1555 (19%) out of a projected final total of 8,005 domestic units are connected. The current water demand across IWNL sites in the Southern Water supply area is 1,893.57 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 8,005 domestic properties and 93 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 1,369 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 2,640.56 m<sup>3</sup>/d with an additional 275.35 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 835.09 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.35 and 5.36.

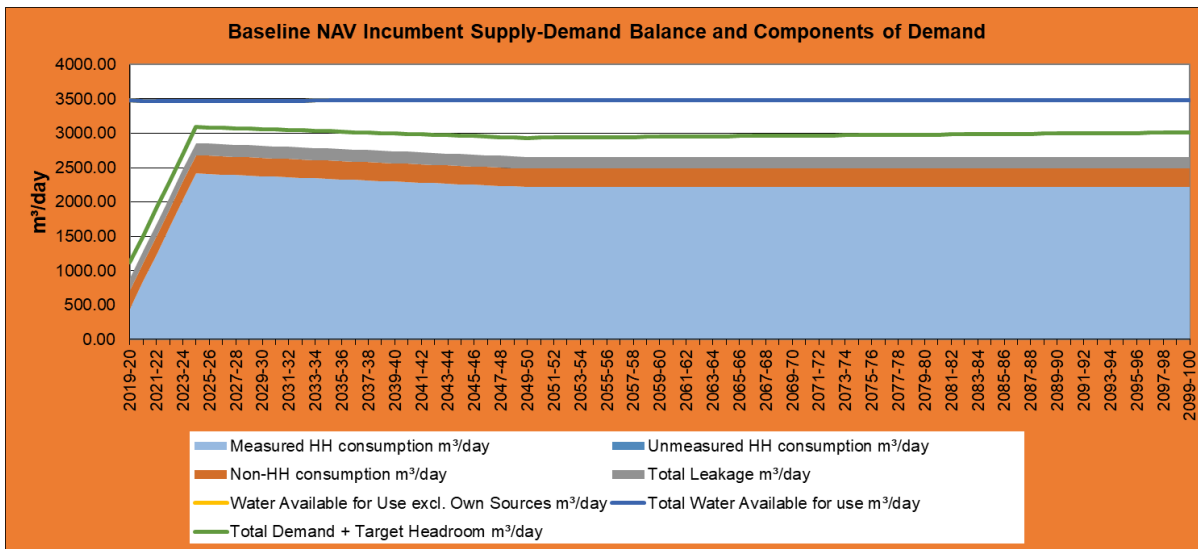


Figure 5.35 Baseline Supply-Demand Balance for Southern Water Area

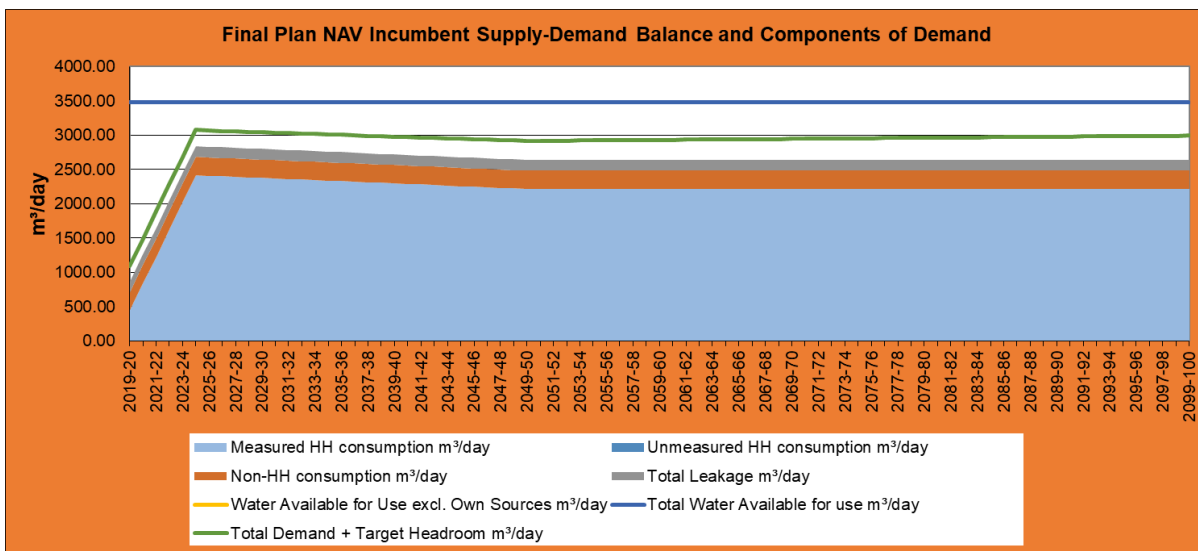


Figure 5.36 Final Plan Supply-Demand Balance for Southern Water Area



## THAMES WATER



**Figure 5.37 Thames Water Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 35,696 dwellings across the Thames Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.13 on a site-by-site basis.

### CURRENT DEMANDS

Currently 7,873 (22%) out of a projected final total of 35,696 domestic units are connected. The current water demand across IWNL sites in the Thames Water supply area is 6,343.86 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 35,696 domestic properties and 616 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 1,855 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 12,416.56 m<sup>3</sup>/d with an additional 1,141.97 m<sup>3</sup>/d headroom

allowance.

The supply-demand balance is projected to exceed in 2033/34 until 2039/40 if no further action is taken. We have projected a PCC reduction of 110 by 2050, in line with the other WRZ. However, this WRZ will require a reduction ahead of this target. Additional measures such as leakage monitoring and targeted water wise messaging will be required to aid a positive supply-demand balance within the planning period. The available headroom is 1998.16 m<sup>3</sup>/d by 2049/50. The projected balance is illustrated in Figure 5.38 and 5.39.

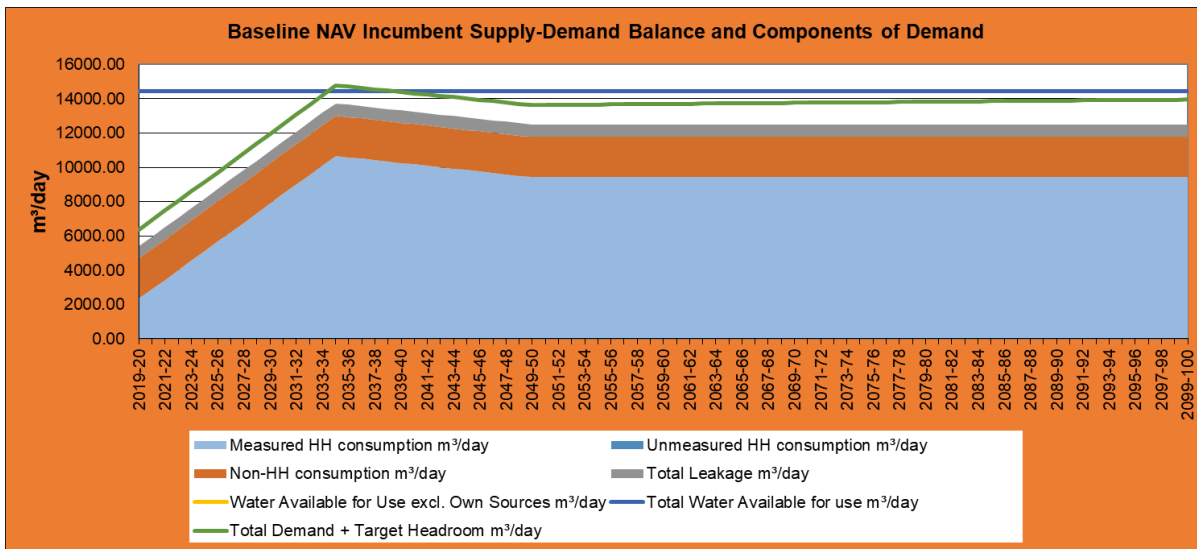


Figure 5.38 Baseline Supply-Demand Balance for Thames Water Area

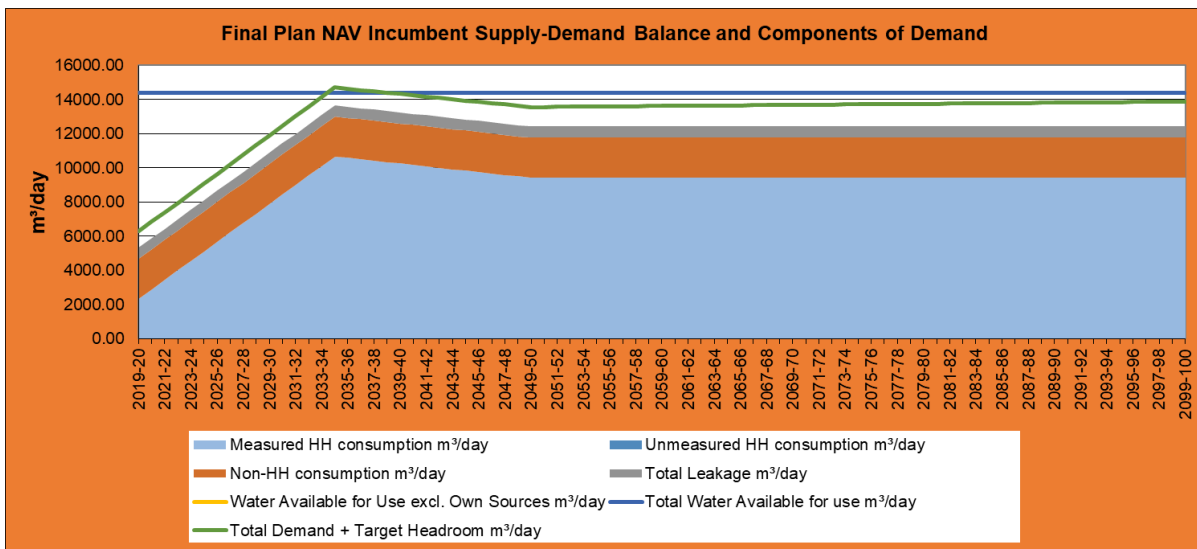
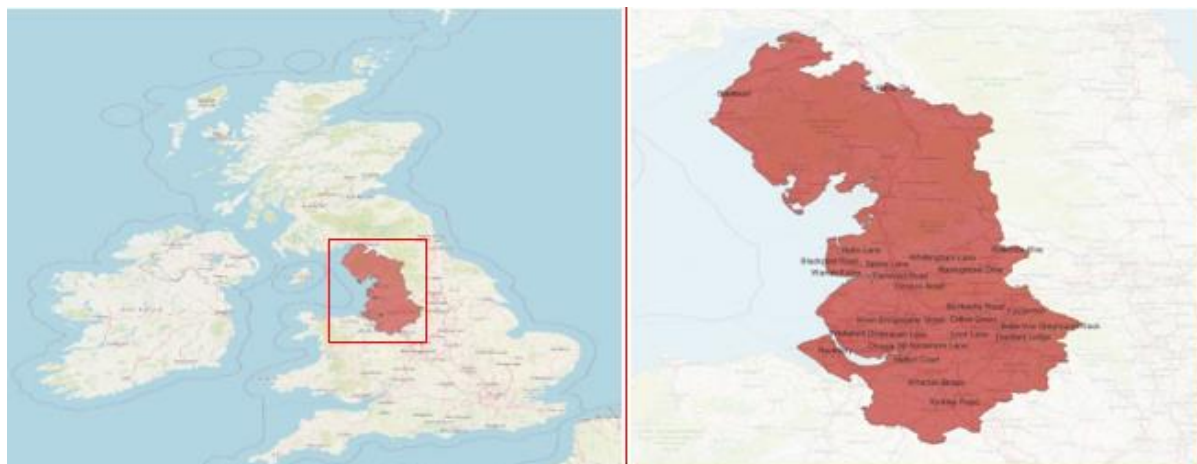


Figure 5.39 Final Plan Supply-Demand Balance for Thames Water Area

## UNITED UTILITIES



**Figure 5.40 United Utilities Water Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 7435 dwellings across the United Utilities Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.14 on a site-by-site basis.

### CURRENT DEMANDS

Currently 717 (9.64%) out of a projected final total of 7435 domestic units are connected. The current water demand across IWNL sites in the United Utilities Water supply area is 2300 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 7435 domestic properties and 16 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 271 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 2120 m<sup>3</sup>/d with an additional 220 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 750 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.41 and 5.42.

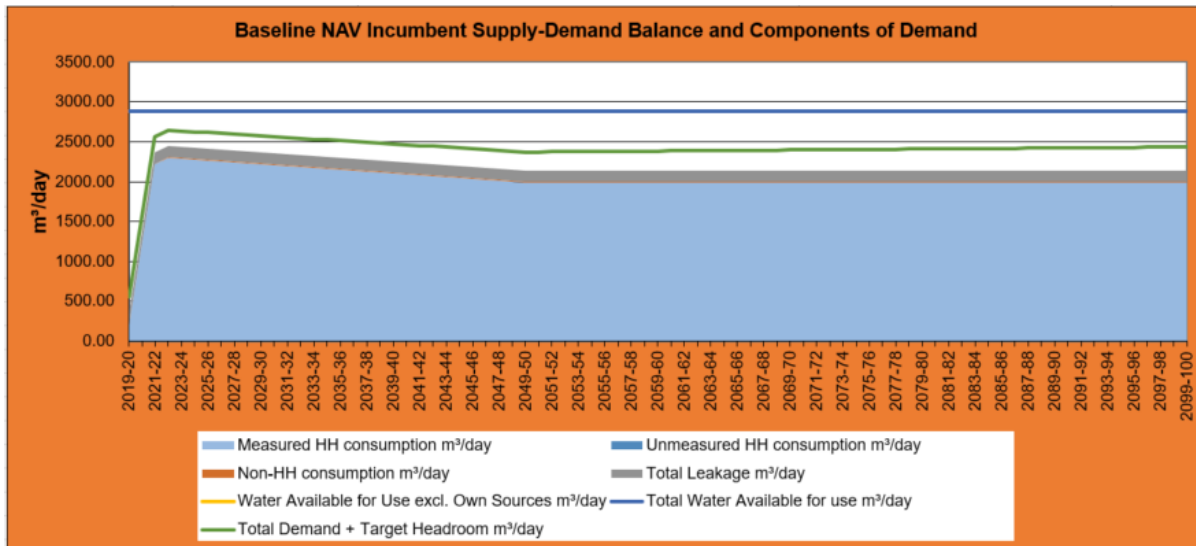


Figure 5.41 Baseline Supply-Demand Balance for United Utilities Water Area

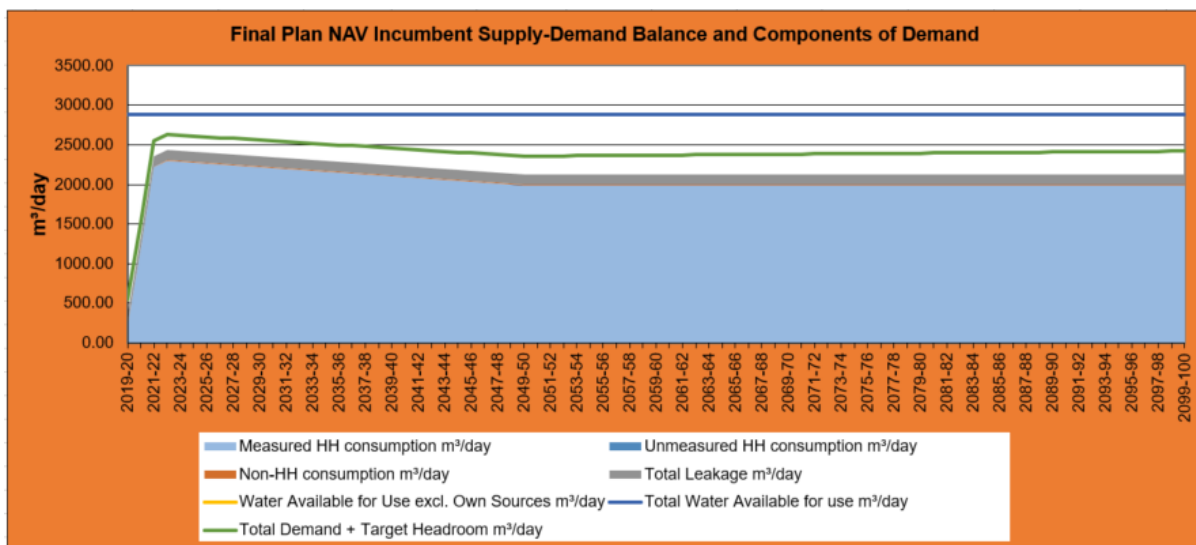


Figure 5.42 Final Plan Supply-Demand Balance for United Utilities Water Area

## WESSEX WATER



**Figure 5.43 Wessex Water Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 2,187 dwellings across the Wessex Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.15 on a site-by-site basis.

### CURRENT DEMANDS

Currently 0 (0%) out of a projected final total of 2,187 domestic units are connected. The current water demand across IWNL sites in the Wessex Water supply area is 589.68 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 2,187 domestic properties and 3 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 729 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 617.33 m<sup>3</sup>/d with an additional 70.36 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 270.74 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard

for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.44 and 5.45.

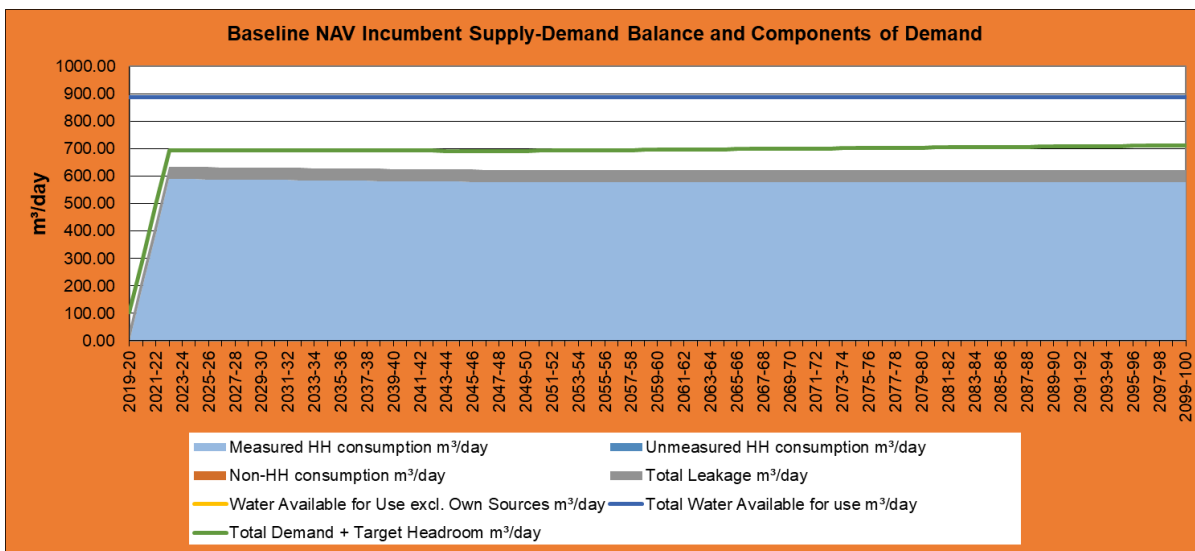


Figure 5.44 Baseline Supply-Demand Balance for Wessex Water Area

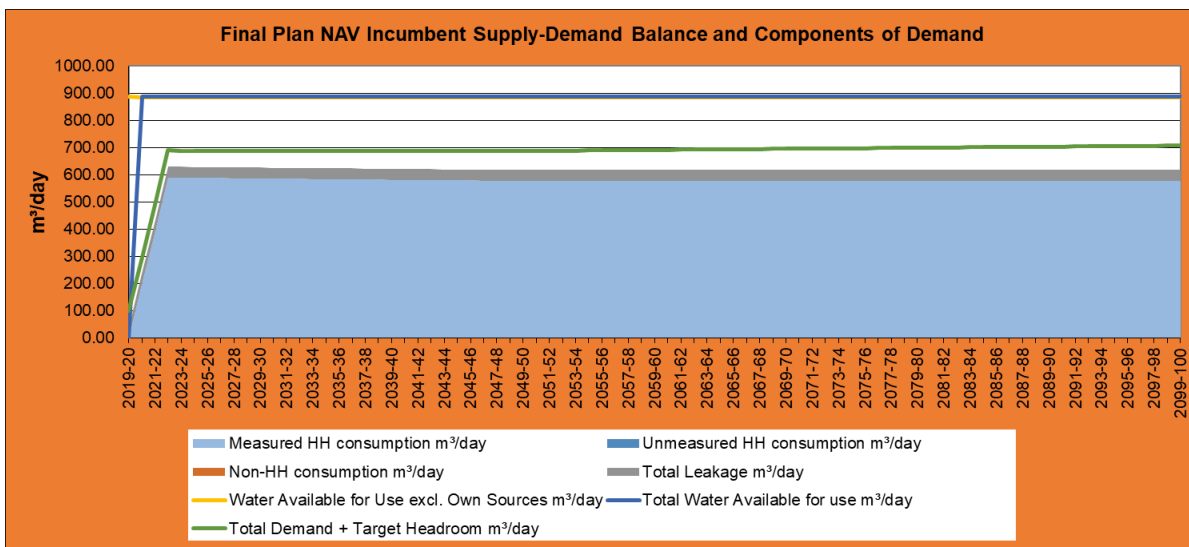


Figure 5.45 Final Plan Supply-Demand Balance for Wessex Water Area

## YORKSHIRE WATER



**Figure 5.46 Yorkshire Water Supply Area**

### CURRENT WATER SUPPLY ARRANGEMENTS

IWNL have negotiated initial bulk supply agreements to supply 12412 dwellings across the Yorkshire Water supply area. The maximum quantities to be supplied under this agreement are listed in Table 3.16 on a site-by-site basis.

### CURRENT DEMANDS

Currently 2038 (16.41%) out of a projected final total of 12412 domestic units are connected. The current water demand across IWNL sites in the Yorkshire Water supply area is 3090 m<sup>3</sup>/d.

### DEMAND FORECASTS AND PROJECTIONS

There will be an estimated 12412 domestic properties and 60 commercial units of varying type at full build-out. The precise rate of development is unknown as it will depend on many factors. For the purpose of resource planning, we have assumed that an average of 2,555 units will be built each year.

### THE SUPPLY-DEMAND BALANCE

Total demand in the zone increases steadily until the projected full build-out is achieved. Headroom increases very slightly as uncertainty increases into the future. Leakage remains low but does increase as the distribution network ages. Total demand in 2049/50 (including leakage) is estimated to be 3630 m<sup>3</sup>/d with an additional 360 m<sup>3</sup>/d headroom allowance.

The supply-demand balance is projected to remain in surplus throughout the planning period with an available headroom of 910 m<sup>3</sup>/d in 2049/50. It is therefore concluded that if the forecasts are reliable, no measures additional to routine leakage control and normal regard

for the efficient use of water will be required to maintain a positive supply-demand balance within the planning period. The projected balance is illustrated in Figure 5.47 and 5.48.

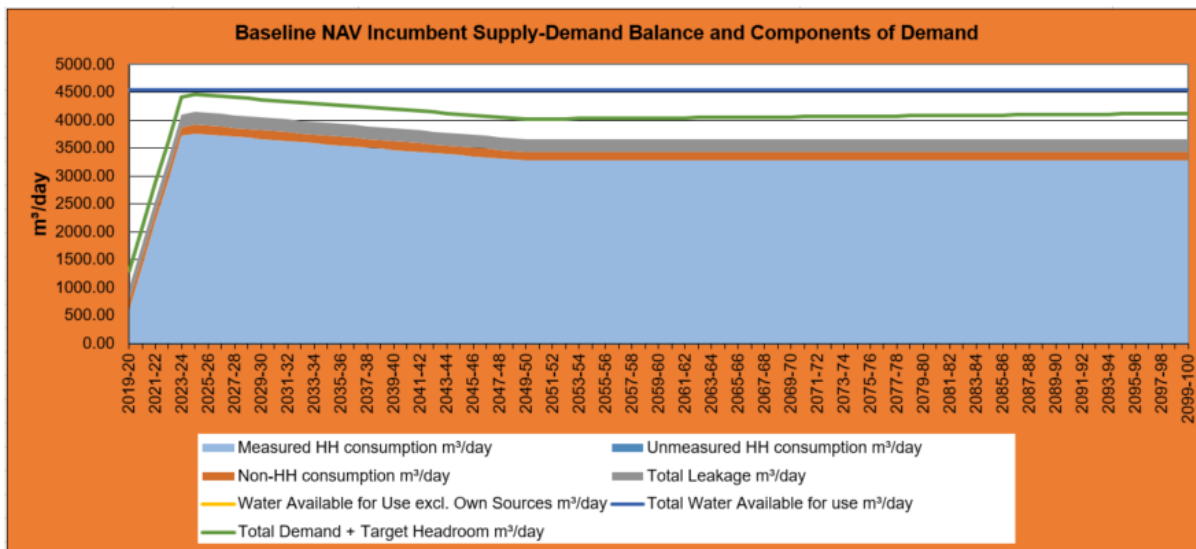


Figure 5.47 Baseline Supply-Demand Balance for Yorkshire Water Area

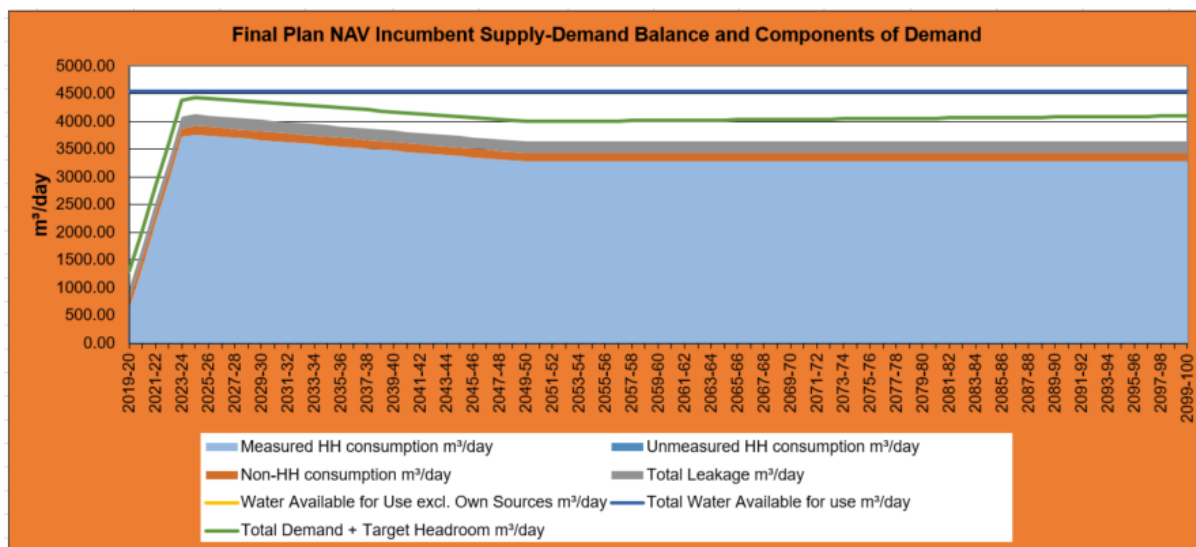


Figure 5.48 Final Plan Supply-Demand Balance for Yorkshire Water Area

## 6 NATIONAL ENVIRONMENT PROGRAMMES & WATER FRAMEWORK DIRECTIVE

IWNL will work closely with the incumbent water company as required in assessing the potential impact of licensed abstraction in designated or environmentally sensitive areas under the terms of the Habitats Directive; the Environment Agency’s Restoring Sustainable Abstractions (RSA) programme; local environment programme sustainability investigations; biodiversity action plans; Catchments Abstraction Management Strategies (CAMS); River Basin Management Plan; Local Nature Recovery Strategies.



However, given that IWNL will not be operating any of its own sources, in this WRMP it is not considered to be a major issue requiring significant addressing within the plan.

## **7 STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)**

The SEA process enables all options considered by IWNL during the formulation of the preferred strategy to be appraised against IWNL's own environmental objectives. This process therefore allows IWNL to demonstrate how it has considered the most environmentally favourable solutions within its overall strategy.

However, while the company will work closely with the incumbent water company as appropriate, given that it will not be operating any abstraction sources it is not considered necessary to address this topic specifically within the WRMP.

## **8 REGIONAL GROUPS AND PLANNING**

IWNL is geographically diverse and has insets in the following regional planning groups:

- Water Resources North
- Water Resources West
- Water Resources East
- Water Resources South East
- West Country Water Resources

While IWNL will work closely with the different Regional Planning groups as appropriate, given that it will not be operating any abstraction sources it is not considered necessary to address this topic specifically within the WRMP. Additionally, IWNL aligns the services levels to the incumbent and have the same target of reducing leakage by 50% and PCC to 110 by 2050.

## **9 DIFFERENCES BETWEEN WRMP19 AND WRMP24**

Our progress on our WRMP19 has been reported annually and these annual reports have been published on our website. These also report on any changes to demand, for example during the COVID19 pandemic.

The main changes in methodology between WRMP19 and WRMP24 is the use of UKCP18 for climate change predictions. Further, the data tables for WRMP24 are NAV specific where the forecast is examined by incumbent and whole company rather than by inset.

## 10 APPENDIX 1 GLOSSARY

AMP6	Asset Management Plan 6 The 6th 5-year planning period for which, following a price review, an investment programme will guide improvements to infrastructure over the period 2015 – 2020.
AMR	Automatic Meter Reading The technology of automatically collecting consumption and diagnostic data from water or energy meters and transferring it to a central database for billing, troubleshooting and analysis.
AWS	Anglian Water Services Limited The name under which the privatised water company known as ‘Anglian Water’ operates.
CAMS	Catchment Abstraction Management Strategies Strategies to help safeguard water resources despite the increasing pressure on water availability from climate change and population growth; involves assessments of how much water is reliably available on a catchment-by-catchment basis
CFSH	The Code for Sustainable Homes The national standard for the sustainable design and construction of new homes
CLG	Dept. for Communities and Local Government Responsible for local government, regeneration, neighbourhoods, planning, housing and the built environment.
Defra	Dept. for Environment Food and Rural Affairs The UK government department responsible for policy and regulations on the environment, food and rural affairs.
Headroom	A planning allowance that is used to provide a buffer in the forecast supply-demand balance
Available headroom	The difference between demand and WAFU at any given time.
Target headroom	The minimum buffer that a prudent water company should allow between supply and demand to cater for specified uncertainties.
Inset appointment	the appointment by Ofwat of an independent limited company to replace the incumbent as the appointed water and/or sewerage company for a specified area
IWNL	Independent Water Network Limited Owned by parent company BUUK Utilities UK.
LoS	Levels of Service The standard of service (effectively the reliability of supply) that a customer can expect to receive and the average frequency with which restrictions on water use are likely to be applied.
l/h/d	Litres per head per day A unit used to quantify per capita consumption of water; usually domestic consumption.
l/p/d	Litres per person per day The same as l/h/d (see above).

l/prop/d	<p>Litres per property per day</p> <p>A unit of demand or consumption which is often used to describe rates of leakage from the distribution network; not to be confused with l/p/d.</p>
l/s	<p>Litres per second</p> <p>A rate of flow</p>
NEP	<p>National Environment Programme</p> <p>A list of environmental improvement schemes drawn up by EA, in consultation with others, to ensure that water companies help to meet European and national water-related targets.</p>
Ofwat	<p>The Water Services Regulation Authority (formerly the 'Office of Water Services')</p> <p>The economic regulator of the water and sewerage sectors in England and Wales.</p>
pcc	<p>Per capita consumption</p> <p>The rate of water consumption expressed as an average per head of population.</p>
PoC	<p>Point of connection</p> <p>The point at which the bulk supply from the donor company's network enters the IWNL network.</p>
RSA	<p>Restoring Sustainable Abstractions</p> <p>An Environment Agency programme to assess all licences that permit abstractions from rivers or groundwater against the level of environmental impact they cause or potentially could cause to ensure they can be sustained without damaging the environment.</p>
SEA	<p>Strategic Environmental Assessment</p> <p>An assessment, called for under the European SEA Directive, to identify and consider the significant environmental issues likely to arise from the content of strategic documents such as plans, programmes and strategies including WRMPs.</p>
STW	<p>Severn Trent Water Limited</p> <p>The name under which the privatised water company known as 'Severn Trent' operates.</p>
TWUL	<p>Thames Water Utilities Limited</p> <p>The name under which the privatised water company known as 'Thames Water' operates.</p>
UKWIR	<p>UK Water Industry Research</p> <p>An organisation set up by the UK water industry in 1993 to facilitate collaborative research for UK water operators.</p>
USPL	<p>Underground Supply Pipe Leakage</p> <p>Leakage occurring from the supply pipe that connects a customer's property to the water company's main.</p>
WAFU	<p>Water Available for Use</p> <p>The amount of water available to meet expected demand. It is calculated by deducting allowable outages and planning allowances (such as sustainability reductions) from deployable output.</p>

WRMP	<p>Water Resources Management Plan</p> <p>A statement of how a water company intends to maintain the balance between the supply and demand for water over a 25-year period, together with economic, social and environmental justification for its preferred set of options for meeting projected demand.</p>
WRPG	<p>Water Resources Planning Guidelines</p> <p>Regularly updated documents issued by the Environment Agency in collaboration with Defra, Ofwat and the Welsh Government to guide water companies in the development and presentation of their WRMPs.</p>
WRZ	<p>Water Resource Zone</p> <p>A discrete area in which resources can be shared so that all customers experience the same risk of supply failure from a resource shortfall.</p>

## 11 APPENDIX 2 REFERENCES

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- UKWIR (2013), *Resilience Planning: Good Practice Guide - Summary Report*, Report Ref. No 13/RG/06/2

## 12 APPENDIX 3 THE WATER RESOURCES MANAGEMENT PLAN (ENGLAND) DIRECTION 2022

The requirements of clause 3.1 of The Water Resources Management Plan (England) Direction 2022 are tabulated below, and reference made to which section of this document these are actioned. If these are not applicable to IWNL, this has been noted.

Clause 3.1 Sub-section	Section of WRMP	Comment	
<b>a</b>	Appraisal methodology.	4	
<b>b</b>	Estimate of average annual risk, expressed as a percentage, of prohibitions or restrictions on its customers and how it changes over the course of the planning period.	Table 2.1	
<b>c</b>	Assumptions made to estimate of average annual risk.	2	Aligned to incumbent levels.
<b>d</b>	Greenhouse gas emissions likely to arise, individual and collective sources and plans to reduce these. Contribution to net zero and how this will contribute to government target.	2	
<b>e</b>	Supply-demand assumptions, to include a. climate change b. domestic / non-domestic housing numbers.	3 (Climate Change)  Tables 2.3-2.17 (domestic/non-domestic numbers)	
<b>f</b>	Intended programme for the implementation of domestic metering.	3	
<b>g</b>	The total number of meters installed to record water supplied to domestic premises at the commencement of the planning period.	3	
<b>h</b>	The total number of domestic premises which will become subject to domestic metering during the planning period	3	

<b>i</b>	The impact on demand for water due to any increase in the number of premises subject to domestic metering.	3	
<b>j</b>	Assessment of the cost-effectiveness of domestic metering as a mechanism for reducing demand for water by comparison with other measures.	-	Not included since 100% of IWNL domestic and non-domestic properties have meters, and all occupied properties are billed on metered consumption.
<b>k</b>	Programme to manage and reduce leakage, including anticipated leakage levels and how those levels have been determined.	3	
<b>l</b>	If leakage levels are expected to increase, why any increase is expected and the proposed plan of works that will be undertaken to mitigate this.	-	Not included since leakage is not expected to increase.
<b>m</b>	How its intended programme to manage and reduce leakage will contribute to a reduction in leakage by 50% from 2017/18 levels by 2050 and any leakage reduction commitment it has made.	4	Leakage level is set at 5%, it is not considered feasible to reduce this by 50%. Options to reduce to 4.5% are included in the plan.
<b>n</b>	How the plan reflects regional water resource plans.	8	