Environment Agency

enhancing... improving... cleaning... restoring...
changing... tackling... protecting... reducing...
create a better place... influencing... inspiring...
advising... managing... adapting...

Managing water abstraction

We are The Environment Agency. It's our job to look after your environment and make it **a better place** - for you, and for future generations.

Your environment is the air you breathe, the water you drink and the ground you walk on. Working with business,

government and society as a whole, we are making your environment cleaner and healthier.

The Environment Agency. Out there, making your environment a better place.

Published by:

Environment Agency
Horizon House
Deanery Road
Bristol BS1 5AH
Tel: 03708 506506
Email: enquiries@environment-agency.gov.uk

Foreword

Water is the most essential of our natural resources, and it is our job to ensure that we manage and use it effectively and sustainably. The latest climate change predictions show that pressure on water resources is likely to increase in the future. In light of this, we have to ensure that we continue to maintain and improve sustainable abstraction by balancing the needs of society, the economy and the environment.

We monitor the environment and existing abstraction so we understand the water balance of our catchments and what water may be available for future use. We publish the results in our Abstraction Licensing Strategies.

In this document we explain our approach to managing abstraction and what it means for existing and potential abstractors. This gives the context for our Abstraction Licensing Strategies and links to where you can find out more.

Contents

Summary for potential abstractors

The availability of water

We monitor the environment and existing abstractions, and use this information to assess how much water is available for people to take from rivers, groundwater and other sources. This document includes maps of water availability in England. For more detailed maps for your area you need to identify which catchment you are in and look at the local Abstraction Licensing Strategy document. These are published alongside this document and can be found on our website.

To take water from rivers, groundwater and other sources, you generally need an abstraction licence and to create or alter an impoundment you need an impoundment licence. There are some circumstances where a licence isn't needed currently. To find out if you need a licence and how to apply, take a look at our Guide to getting your licence and water abstraction webpage.

Upcoming changes to the current system

Following formal consultation in 2014 Defra have now published their consultation response which sets out plans for introducing a reformed abstraction management system in England in the early 2020s. The consultation response sets out how the new system will balance the needs of different water users and the environment in the face of pressures from climate change and increasing water demand. More information can be found on the Defra website.

Where to find out more

This document gives an overview of how we manage water resources in England and how the strategies and plans that relate to water resources fit together. Throughout the document you will find hyperlinks to webpages and other useful documents. You can also call us on 03708 506 506 (calls cost no more than a national rate call to an 01 or 02 number) or email us enquiries@environment-agency.gov.uk.

1 Introduction

Water is essential for human life and to sustain a diverse, thriving aquatic environment. It is also an important economic driver as an essential requirement for industry, power generation, commerce and agriculture.

This edition of **Managing Water Abstraction** (2016) sets out how we manage water resources in England. It explains the technical, legal and policy requirements behind the abstraction licensing strategies.

Water Resources is the term we use to refer to the quantity of water available for people and the environment. Abstraction is the removal of that water, permanently or temporarily, from rivers, lakes, canals, reservoirs or from underground strata. We need to make sure that abstraction is sustainable and does not damage the environment. We control how much, where and when water is abstracted through our licensing system. This system was introduced by the Water Resources Act 1963 and has been refined and changed as a result of the Water Resources Act 1991 and the Water Act 2003.

Our powers and duties enable us to regulate the use of water under existing licences and to decide whether to grant new ones. Where abstraction is damaging the environment we also have the power to amend or revoke existing licences.

The availability of water resources for abstraction is assessed through our Resource Assessment Methodology. This determines how much water is reliably available for abstraction on a catchment by catchment basis. By taking into account the amount of water already licensed for abstraction and how much water the environment needs, we can determine how much water is potentially available for further abstraction. We can also identify where abstraction pressures exist and solutions for addressing them.

Our approach is an integral part of River Basin Management Planning, and the Abstraction Licensing Strategies we publish implement objectives for sustainable management of water resources. The strategies are reviewed and updated when required and may be found on our web site.

2 Water resources strategies and plans

Managing water resources requires a coordinated approach by government, water companies and the Environment Agency. There are a number of different plans and strategies that help us to balance the needs of people, the economy and the environment. Each covers different aspects of managing water and they fit together to form the system we have today.

This section outlines the main plans and strategies in turn, separated into those driven by government, water companies and the Environment Agency. Section 3 onwards outlines how these plans and strategies are put into practice to manage abstraction.

2.1 Government strategies

On 28 January 2016 Defra launched the first single strategy for the whole of Defra, Creating a great place for living: Defra's strategy to 2020. The strategy sets the priorities and direction for Defra to 2020, including cleaner water and sustainable usage.

2.2 Environment Agency strategies and plans

2.2.1 River Basin Management Plans (RBMPs)

We produce River Basin Management Plans for each of the 7 River Basin Districts (RBDs) in England and work jointly with Natural Resources Wales on the Dee and Severn RBDs. These plans set out the actions, known as the 'programme of measures', that are necessary to ensure that inland and coastal waters achieve 'good ecological status or potential' status (or an alternative objective) and that there is no deterioration from their current status. The second River Basin Management Plans were published in 2016.

Abstraction licensing is one of several mechanisms in place to support River Basin Planning objectives. Other mechanisms include those to control diffuse and point source pollution, and to manage physical alterations to watercourses.

2.2.2 Resource Assessment and Abstraction Licensing Strategies (ALSs)

We have a standard approach to assessing the amount of water available for further abstraction licensing, taking into account what the environment needs. We set out our licensing approach for potential abstraction and existing abstraction in our ALSs. There is more information on how we do this in Section 3.

2.2.3 National Environment Programme (NEP)

The NEP is a programme of investigations and actions for environmental improvement schemes that ensures that water companies meet European Directives, national targets and their statutory environmental obligations. We provide a list of investigations and solutions for the NEP after consultation with the water industry and a number of other organisations.

The NEP forms part of the final Asset Management Plan (AMP) that determines the overall level of investment that water companies need to make over a five year period, based on the new price set by the Water Services Regulation Authority (known as Ofwat). Companies incorporate these requirements into their proposed business plans, which inform Ofwat's decision on price limits.

2.2.4 Restoring Sustainable Abstraction (RSA)

Where abstractions are unsustainable, or potentially damaging to the environment, we investigate the causes, assess options and implement measures to restore sustainable abstraction. This could include changing abstraction licences or other actions to reduce the impact on the environment. These licences are identified in the Restoring Sustainable Abstraction Programme. It is our ambition

to complete this by March 2020.

2.2.5 Environment Agency drought plans

We produce Drought plans which set out how we plan for, and manage a drought. They range from high-level plans where we co-ordinate our drought management activities throughout England to local level plans where we outline specific operational activities. Our plans are reviewed annually and updated when appropriate.

2.3 Water company plans

Water companies have a statutory duty to produce both Water Resources Business Plans (WRBPs) and Water Resources Management Plans (WRMPs). The first relates to how they manage their business and the level of customers' bills and the second to how they manage water.

2.3.1 Water company water resources business plans (WRBPs)

Water companies submit business plans to Ofwat, who regulate the price customers pay for the supply of water and the treatment of wastewater. Ofwat reviews Water Company pricing in a five-yearly process known as the Periodic Review. The final determination for the latest Periodic Review, PR14, was in December 2014. This set the price limits for the period 2015 to 2020. Water companies are now working on PR19 which will set prices for 2020 to 2025. Water companies prepare their final business plans using the advice and comments from Ofwat, ourselves, other organisations and the public. We use the consultation period to check that these plans are consistent with WRMPs.

2.3.2 Water company water resources management plans (WRMPs)

These plans show how water companies are going to manage the supply and demand for water over a 25-year period. From 2009 they've had to publish and consult on their draft WRMPs which will be kept under yearly review and revised every five years. Ofwat use the Management Plans to assess the companies' supply-demand balance and the work they need to undertake as part of the Periodic Review. This information forms the basis for the Water Company Business Plans. Further information on the plans and our role in producing them can be found at WRMPs.

2.3.3 Water company drought plans

Water companies prepare these plans to show the actions they propose to take in order to manage water supplies during drought periods. They prepare them following our guidance, consult on them and then submit them to government. Further information on this process can be found on our webpage for Water Company Drought Plans.

3 Resource assessment and abstraction licensing strategies.

ALSs set out how we will manage water resources within a catchment area. Our aim is to:

- make information on water resource availability and the abstraction licensing strategy more readily available
- provide a consistent and structured approach to local water resource management
- recognise both the abstractor's reasonable need for water and environmental needs
- provide mechanisms to assess water resources availability
- provide results which ensure the relevant RBMP objectives are met
- provide tools to aid licensing decisions – particularly the management of time limited licences.

3.1 Our approach

Abstractions over 20 cubic metres per day require an abstraction licence (with some exceptions). Whether we grant a licence or not depends on the amount of water available after the needs of the environment and existing abstractors are met, and whether the justification for the abstraction is reasonable.

Our resource assessment draws this information together and, in combination with the resultant ALSs, underpins our licensing decisions and contributes to delivering the objectives of River Basin Management Planning for abstraction and impoundment.

3.1.1 Resource assessment and availability

We use information from our monitoring network to assess the current and past water and ecological situation. We routinely gather information on rainfall, river level and flows, groundwater levels and ecology. More information on our monitoring activities can be found on our website, along with the latest data from some of our key water flow and level sites. At the start of the resource assessment we calculate a water balance for each ALS area. The elements of the water balance calculation are river flows, groundwater recharge, abstractions, discharges, and a resource allocation for the environment and any other water uses or features that require protection. We use an 'Environmental flow indicator' (EFI) to assess whether river flows are sufficient to support a healthy ecology. More information on how we use EFIs is given in Appendix 1.

The proportion of time that water is available for new abstraction for England in Map 3.2. The actual resource availability detailed in our Abstraction Licensing Strategies could be different from this national picture due to the need to manage local features and issues, or to account for better local information. Local water availability may also be affected by other activities and the environment downstream. The resource assessment also helps us understand which parts of our catchments, due to existing abstractions, may not have enough water to support the river ecology. We carry out further investigation on abstraction licences that may be causing or have the potential to cause environmental damage. If any of these licences are found to be damaging the environment we investigate further and identify options for a solution. We will consider mitigating, varying or revoking these abstraction licences. This process is outlined in more detail in Section 4.

We report the results of the resource assessment at a local scale based on the water bodies and groundwater bodies we use in River Basin Planning. We use colours known as water resource availability colours to indicate the amount of water available for additional abstraction. Not all abstractors use the full quantity of water they are entitled to, so the flows in recent years may be significantly different to what we would expect if abstractors took their full licensed quantities. To account for this, we assess the availability of water by the relationship between the fully licensed and recent actual flows and compare this to the EFI. River flows change naturally throughout the

year, so we want to protect flow quantity and variability in our rivers from low to high flow conditions. To achieve this we calculate resource availability at four different flows, low flow (Q95); below moderate flows (Q70); moderate flows (Q50); and higher flows (Q30). We use statistical analysis to make interpretation of long term flow information easier. For example, a low flow is generally accepted to be a flow that is exceeded 95 percent of the time. We call this a Q95 flow. You will see flow presented this way in both this document and our Abstraction Licensing Strategies. Map 3.1 illustrates what this looks like for England.

Water resource availability colour	Implication for licensing
High hydrological regime	There is more water than required to meet the needs of the environment. However, due to the need to maintain the near pristine nature of the water body, further abstraction is severely restricted.
Water available for licensing	There is more water than required to meet the needs of the environment. New licences can be considered depending on local and downstream impacts.
Restricted water available for licensing	Full Licensed flows fall below the EFIs. If all licensed water is abstracted, there will not be enough water left for the needs of the environment. No new consumptive licences would be granted. It may also be appropriate to investigate the possibilities for reducing fully licensed risks. Water may be available if you can 'buy' (known as licence trading) the entitlement to abstract water from an existing licence holder.
Water not available for licensing	Recent actual flows are below the EFI. No further consumptive licences will be granted. Water may be available if you can buy (known as licence trading) the amount equivalent to recently abstracted from an existing licence holder.
Heavily Modified Water Bodies (and /or discharge rich water bodies)	These water bodies have a modified flow that is influenced by reservoir compensation releases or they have flows that are augmented. These are often known as 'regulated rivers'. They may be managed through an operating agreement, often held by a water company. The availability of water is dependent on these operating agreements. There may be water available for abstraction in discharge rich catchments, you need to contact the Environment Agency to find out more.

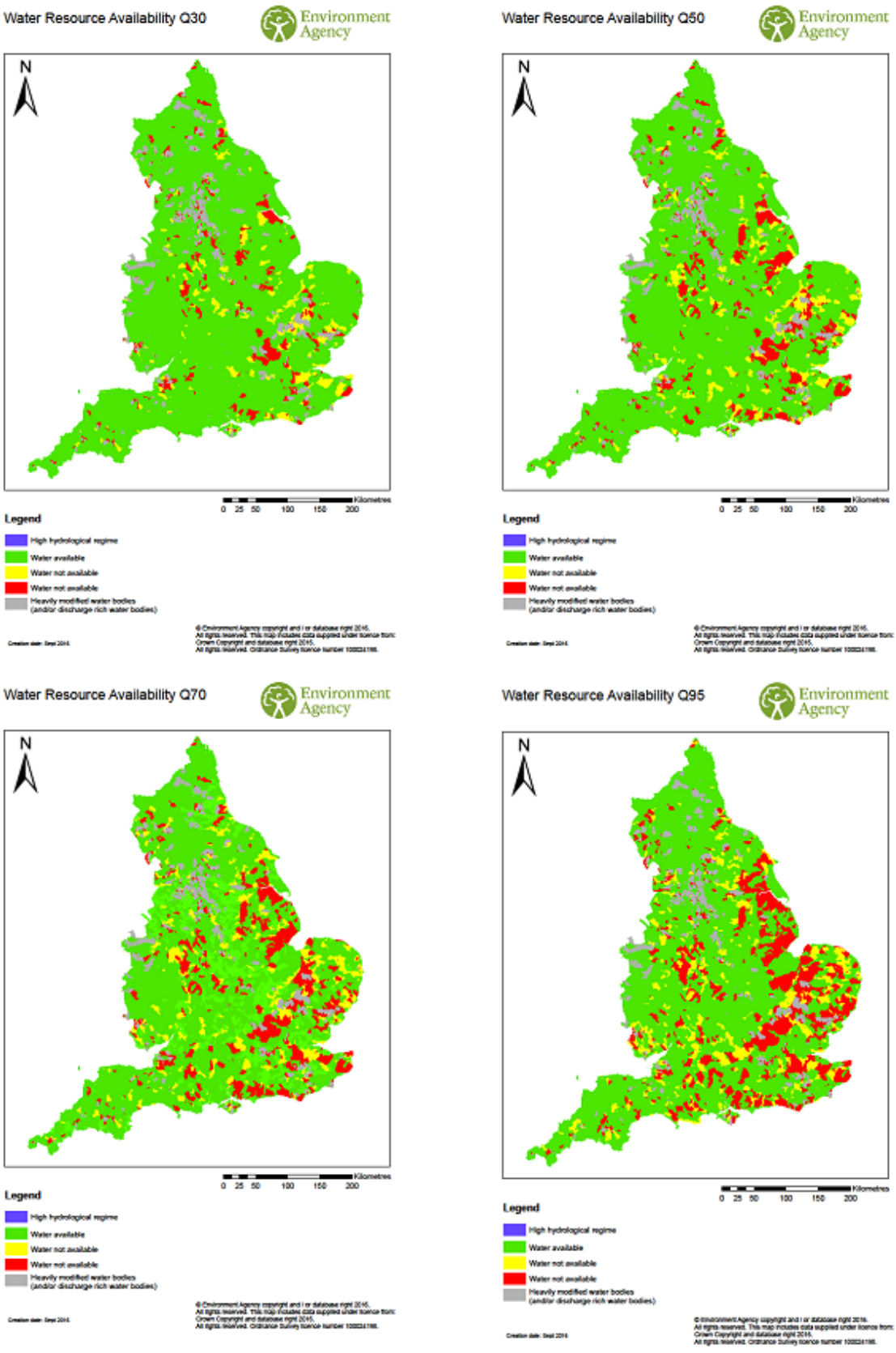
Table 3.1 Water Resource Availability Colours

The same availability is applied to surface water and groundwater unless:

- investigations have identified resource concerns about groundwater,
- we have better information on principal aquifers,
- or we are aware of local requirements for greater protection.

In these cases, the standard water resource availability colours will be overridden for the groundwater. Table 3.2 explains the groundwater availability colours, and Map 3.3 shows these colours for groundwater in England.

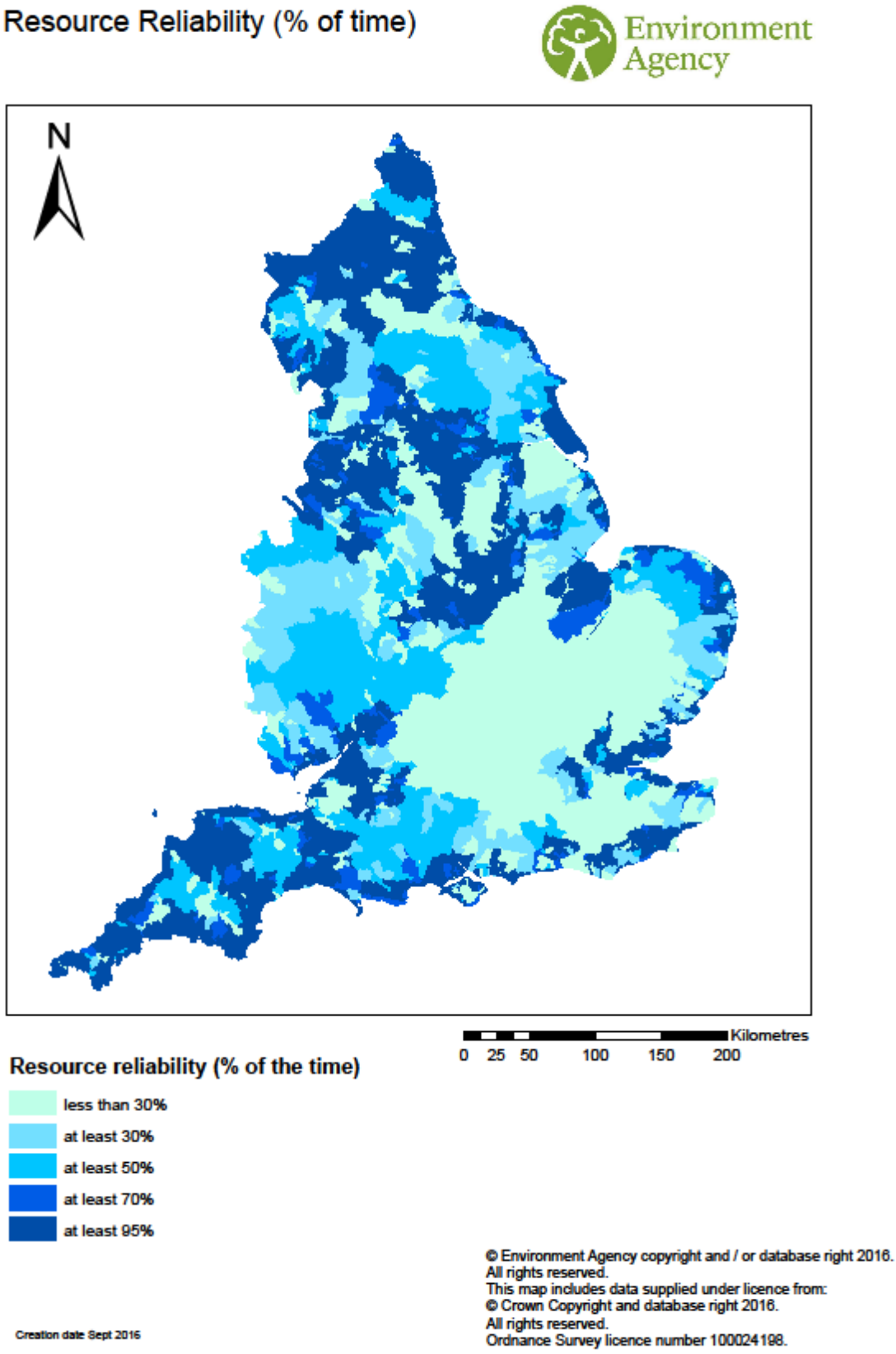
GWMU resource availability colour	Implication for licensing
Water available for licensing	Groundwater unit balance shows groundwater available for licensing. New licences can be considered depending on impacts on other abstractors and on surface water.
Restricted water available for licensing	Groundwater unit balance shows more water is licensed than the amount available, but that recent actual abstractions are lower than the amount available **OR** that there are known local impacts likely to occur on dependent wetlands, groundwater levels or cause saline intrusions but with management options in place. In restricted groundwater units no new consumptive licences will be granted. It may also be appropriate to investigate the possibilities for reducing fully licensed risks. Water may be available if you can 'buy' (known as licence trading) the entitlement to abstract water from an existing licence holder. In other units there may be restrictions in some areas e.g. in relation to saline intrusion
Water not available for licensing	Groundwater unit balance shows more water has been abstracted based on recent amounts than the amount available. No further consumptive licences will be granted.



Map 3.1 Abstraction pressures at low flows (Q95) to high flows (Q30)

Local resource availability in our ALSs could be different from this national picture due to the need to manage local features and issues.

As more of the available water is allocated to abstraction, we will issue licences with increasingly restrictive hands off flow conditions to ensure sufficient water continues to be available for the environment. Through a simple map, we show areas where water availability may be more reliable and therefore available for a greater percentage of the year than other areas. The national picture is shown in Map 3.2, the local picture can be found in the individual Abstraction Licensing Strategies.



Map 3.2 Resource availability, percentage of the time (2016). The local resource availability detailed in our abstraction licensing strategies could be different from this national picture due to the need to manage local features and issues.

3.1.2 Abstraction pressures

Where we identify flows are not supporting a healthy ecology we will investigate ways to remedy this. Taking the catchment-based approach, we look for solutions that take account of other environmental problems in the catchment, for example with water quality. We aim to find the best way forward for the catchment as a whole. In some cases where the cost of a solution is far greater than the benefit it would deliver, alternative, less stringent objectives may be set so that feasible improvements can be made.

The results from this process will feed back into the Licensing Strategy and resource management will reflect the new decisions. This will inform:

- our licence determination and management decisions
- holders of existing time limited licences of the likelihood of licence replacement
- holders of non-time limited licences whether changes may be required to their licences to reduce environmental impact.

3.1.3 Abstraction Licensing Strategy

Abstraction Licensing Strategies set out how we are going to manage abstraction licensing in a particular area. Each Strategy provides information on what resources are available (where and when), what conditions might apply to new licences, whether time limited licences will be replaced with the same conditions, and what changes may need to be made to existing non-time limited licences.

In addition to using the ALS, we also look at the local impacts of the proposed abstraction or impoundment and ensure that we protect the rights of existing water users in addition to protecting the environment.

New or varied licences will generally be time-limited and will usually have a Common End Date (CED) specific to the area they are in. This will allow for periodic review and changes to abstractions within an area where circumstances may have changed since licences were granted. Licences where there is a small risk to the environment may still be issued, but for a time period less than the CED, while the impacts are monitored. If certain tests are met we are able to issue long duration licences. These are expected to be relatively few to ensure catchment reviews can address all licences at the CED review to respond to environmental change.

In some cases we have developed site-specific operating rules for managing abstractions. It is also usual for us to put conditions on licences that require abstraction to stop or be reduced when a flow or water level falls below a specified point. These are known as hands off flows (HoF) and hands off levels (HoL) conditions which we set to protect the environment, other water users and local or larger catchment scale features. If you would like to find out more about these conditions, please read the note on our website.

3.2 River Basin Planning and licensing

The purpose of river basin planning is to enhance the status, and prevent further deterioration, of the ecology of aquatic ecosystems and their associated wetlands and groundwater. RBMPs require that inland and coastal waters reach good chemical and ecological status or potential. River basin planning also promotes the sustainable use of water and applies to all surface freshwater bodies, groundwater, groundwater dependent ecosystems, transitional waters (estuaries) and coastal waters out to one mile from low-water.

The resource assessment undertaken for the ALS supports river basin planning by:

- providing an indication of whether there are sufficient water resources to support a healthy ecology and sustainable abstraction,
- providing information on how much water is available for future licensing and the environment, and

- helping to identify water bodies that are failing, or are at risk of failing to meet good ecological status by 2021 due to water resource pressure.

This information is used to develop licensing approaches for new and existing abstraction which address these risks. As such, the ALS is our means for achieving the RBMP objectives of sustainable management of abstraction and impoundment.

More detail on this is included in Appendix 1, along with how we assess the ecological status of a water body and identify actions that need to be taken.

4 Environmental restoration

We want to make sure that the amount of water being taken from rivers or aquifers can be sustained without damaging the environment, and where it can't, we may need to adjust the amount of water that is being taken.

4.1 Action to achieve sustainable abstraction

We have made progress in addressing unsustainable abstraction licences (over 250 licences have been changed) through the Restoring Sustainable Abstraction (RSA) programme. There remains a significant environmental challenge that must be addressed to achieve sustainable water resources within catchments.

We also need to consider the risk that further environmental damage and depletion of river flows and aquifers may occur if abstraction increases above that we typically see today. We call this 'deterioration'. In certain circumstances deterioration could also mean water bodies are at risk of becoming 'seriously damaged'. We need to take action to prevent deterioration from occurring.

We assess all licences against the level of impact they are causing, or could cause. Any changes that we make will ensure that abstraction licensing continues to balance the needs of a changing environment with those of people, business and industry. When we make a change to an abstraction licence to prevent environmental damage, the licence holder may be eligible for compensation unless they are causing serious damage under section 27 of the Water Act 2003.

4.2 Making changes to abstraction licences

We will liaise with each licence holder where we believe their abstraction licence may have the potential to cause, or is causing, environmental damage. If our investigation concludes that action is needed, we will then look closely at the options available to remedy the problem.

These options could include a change to the abstraction licence. Where a licence is time limited, we may have to grant a replacement licence with different conditions to the original, or may not be able to grant a new licence.

Where a licence does not have a time limit, our preferred approach is to work with the licence holder to agree the best way to change their licence. We will find the best solution both for the environment and for the licence holder. Putting the best solution in place may take time, and we need to allow licence holders a reasonable period to manage the consequences of a licence change. We will give as much notice as possible if we propose changes to a licence.

If we agree the change with the licence holder they voluntarily apply to us to vary their licence. This is a simple and quick process. The licence holder will benefit from lower charges in cases where the licensed quantities are reduced.

Alternatively, we can propose a licence change using our powers under Section 52 of the Water Resources Act 1991. This is a legal and more complex process. In this instance, the licence holder can object to our proposals and if the abstraction does not represent serious damage, may be entitled to financial compensation. This compensation is funded from the EIUC as outlined in 5.1.3.

Appendix 1

River Basin Planning and abstraction licensing

River basin planning helps us to focus on the ecological 'health' of our water environment. Its primary objectives are to prevent deterioration of ecological status or potential (for heavily modified water bodies), and where necessary, to restore 'good ecological status/potential' for surface water or 'good status' for groundwater. The flow regime is a supporting element to attaining good ecological status.

The criteria we now use to assess the environmental flow needs of a river are referred to as Environmental Flow Indicators (EFIs). The indicators are aligned with the UK water resource good status standards for rivers. These ensure that water resources activities, such as abstraction or impoundment, do not cause or contribute to failure or deterioration in ecological status. To prevent deterioration we can't allow any additional abstraction that would bring flows below the EFI, unless the applicant can prove that there will be no deterioration or impact on ecological status. The only way we can issue a licence that allows deterioration is if the situation meets stringent tests.

Ecological Status assessment

River basin planning seeks to identify **all** significant pressures on every water body. This includes the biological, physio-chemical, hydrological and morphological quality of each water body. Our resource availability methodology supports this integrated management of the water environment. Depending on the degree of impact on these qualities, an assessment of the ecological status of each water body has been made and reported in each RBMP.

Surface water body assessment

For surface waters the impact of pressures is measured against natural flow conditions. Natural flow is the flow that would occur if all artificial influences (abstractions, discharges, flow regulation) were not taking place. Surface waters are assessed to be of High, Good, Moderate, Poor or Bad Ecological Status. At High Ecological Status (HES) the water body must show virtually undisturbed conditions. At HES the hydrological element helps to **define** the status. Water bodies which are in this category have no significant artificial influences and have a high biological quality and the hydrological, morphological and pollution pressures are minimal. They must be maintained at HES and not be allowed to deteriorate.

Targets of Good Ecological Status (GES) or Good Ecological Potential (GEP) are set, unless an alternative objective can be justified. At GES the hydrological regime is a **supporting** element. This means that the biological quality of the water body must not be compromised by the flow. Practically, this means that flows must adequately support the river biology. Table A1 shows how ecological status is determined in relation to the natural flow condition.

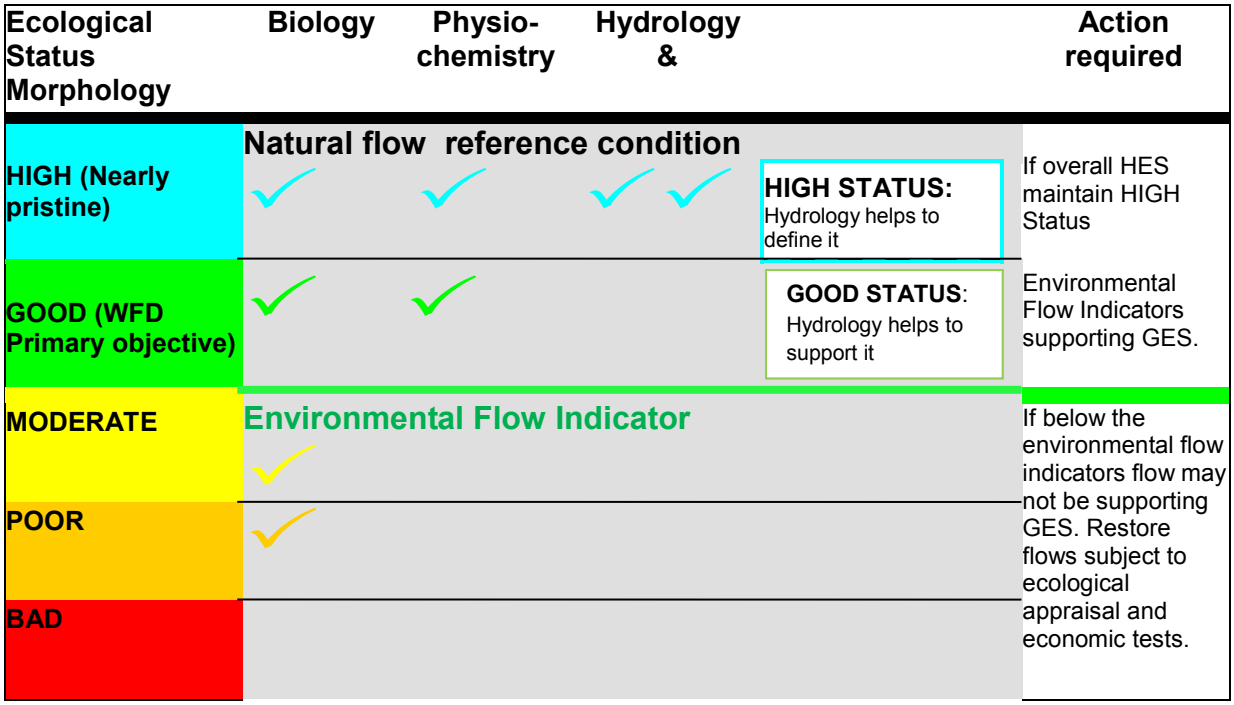


Table A1 Ecological Status in relation to natural flow condition

Groundwater body assessment

A groundwater body can be classed as either Good or Poor based on its chemical status and groundwater abstraction pressures. We assess quantitative status (abstraction pressures) based on current groundwater abstraction impacts on each groundwater body. River basin management planning requires that all groundwater bodies achieve Good Status by 2021 unless alternative objectives are justified. For most of the groundwater bodies at Poor Status we have justified an extended deadline (2027) on the basis that premature action to modify abstractions could be disproportionately costly. This will allow time for investigations to be completed and appropriate measures implemented.

Ecological Potential assessment

Some water bodies have been designated 'artificial' or 'heavily modified' because they are in use for a specific purpose (such as water supply or power generation) and because of physical alterations cannot be restored to GES without compromising the specified use. In this case the objective is GEP. Those designated artificial or 'heavily modified' for water supply purposes include most reservoirs and river reaches where flows are managed for transfer schemes. Some schemes are already in operation to mitigate biological impacts. Consequently the current status of Heavily Modified Water Bodies (HMWBs) has been assessed on the presence or absence of mitigation measures.

Water bodies failing objectives

Where water bodies do not meet GES or GEP, or may not reach this quality unless action is taken, the measures required to achieve good status are set out in the relevant RBMP.

Compliance

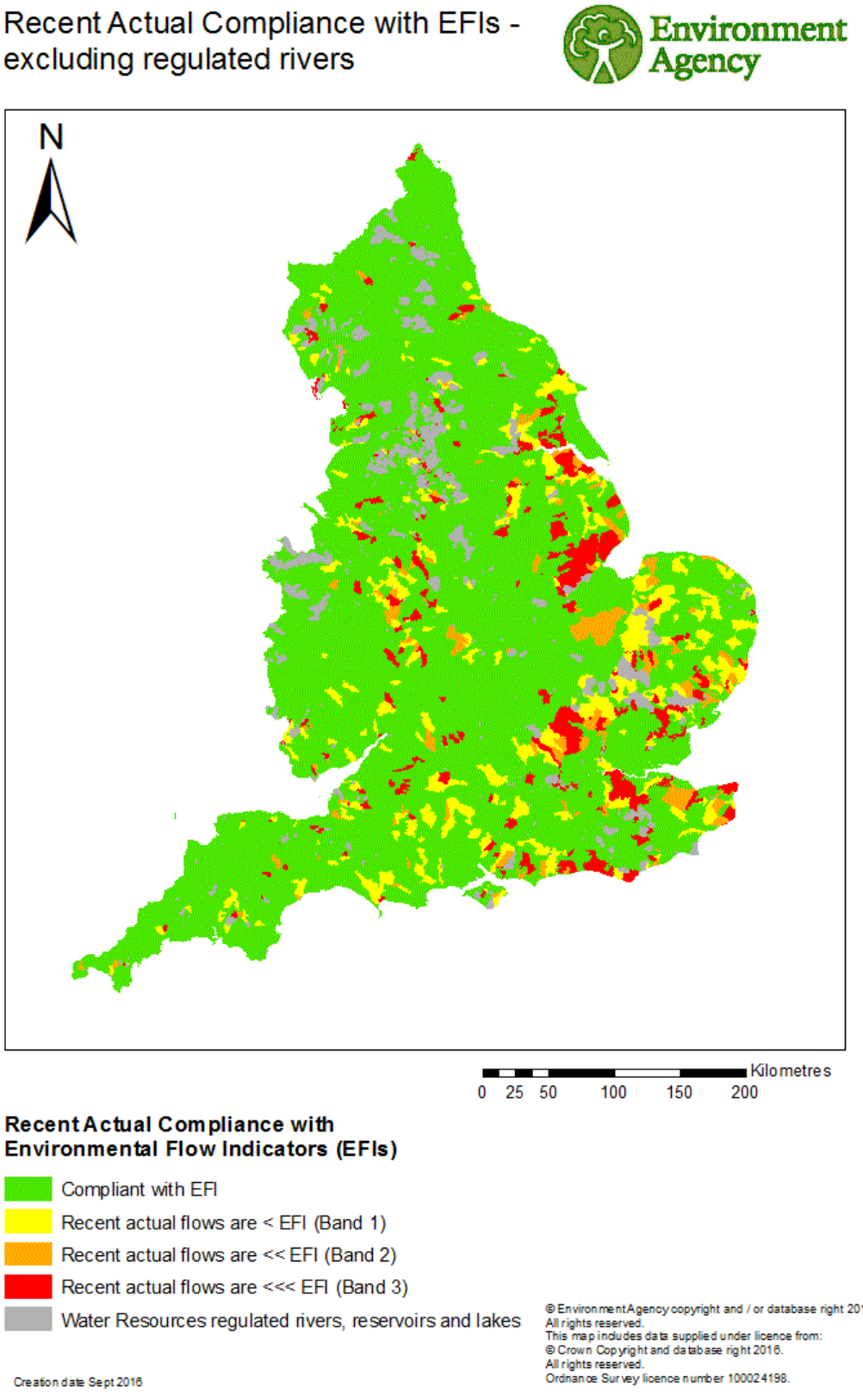
We've screened all river water bodies (except those in flow regulated rivers) to show where abstraction impacts may be causing flows to fall below EFIs when the flow is low. Low flow is defined as Q95, that is, the long term average flow which is exceeded 95% of the time. If the actual flow from a water body is higher than the EFI at Q95, it should support GES and is classed as Compliant. If the actual flow falls below the EFI at Q95, flows may not support GES and the water body is assessed as non-compliant.

We will continue to improve the monitoring and data on which we make these assessments and

will continually review and update compliance results. Non-compliant water bodies are divided into those in which we have either a low, medium or high confidence that there is not enough flow to support GES. Table A2 explains non-compliance in relation to flows. Map A3 shows the extent of compliance across England.

Band 1 yellow	We have a **low** confidence that flows are not supporting GES. These water bodies are defined where there is a deficit in flow below the EFI, but this deficit is less than 25% at Q95
Band 2 orange	We have a **medium** confidence that flows are not supporting GES. These water bodies are defined where there is a deficit in flow below the EFI and this deficit is between 25% and 50% at Q95
Band 3 red	We have **high** confidence that flows are not supporting GES. These water bodies are defined where there is a deficit in flow below the EFI and this deficit is greater than 50% at Q95

Table A2 Non-compliance in relation to flows.



Map A3. Flow compliance, comparing recent actual flows with the flow needed by the environment, the EFI.

Appendix 2

Common End Dates

Area	Licensing strategy Document	CAMS	Common end date	
			Current	Next
East Anglia	**The Cam and Ely Ouse Abstraction Licencing Strategy**	**Cam and Ely Ouse**	**31-Mar-27**	**31-Mar-39**
	The Old Bedford including Middle Level Abstraction Licencing Stra	**Old Bedford, including Middle Level**	**31-Mar-25**	**31-Mar-37**
	The North West Norfolk Abstraction Licencing Strategy	**North West Norfolk**	**31-Mar-18**	**31-Mar-30**
	The Upper Ouse and Bedford Ouse Abstraction Licencing Strateg	**Upper Ouse and Bedford Ouse**	**31-Mar-28**	**31-Mar-40**
	North Norfolk Abstraction Licensing Strategy	**North Norfolk**	**31-Mar-17**	**31-Mar-29**
	East Suffolk Abstraction Licensing Strategy	**East Suffolk**	**31-Mar-26**	**31-Mar-38**
	Essex Abstraction Licensing Strategy	**Essex**	**31-Mar-28**	**31-Mar-40**
	Broadland Abstraction Licensing Strategy	**Broadland Rivers**	**31-Mar-18**	**31-Mar-30**
Lincolnshire and Northamptonshire	The Steeping, Great Eau and Long Eau Catchment Abstraction Ma	Steeping Great Eau and Long Eau	31-Mar-28	31-Mar-40
	Witham Catchment Abstraction Management Strategy	Witham	31-Mar-28	31-Mar-40
	Holbeach Marsh Abstraction Licensing Strategy	Holbeach Marsh	see Welland or Nene	
	The Welland Catchment Abstraction Management Strategy	Welland	31-Mar-26	31-Mar-38
	Nene Catchment Abstraction Management Strategy	Nene	31-Mar-17	31-Mar-29
	The Grimsby, Ancholme and Louth Catchment Abstraction Manag	Grimsby, Ancholme and Louth	31-Mar-18	31-Mar-30
West Midlands	**Dove abstraction licensing strategy**	**Dove**	**31-Mar-18**	**31-Mar-30**
	Warwickshire Avon abstraction licensing strategy	**Warwickshire Avon**	**31-Mar-25**	**31-Mar-37**
	Staffordshire Trent Valley abstraction licensing strategy	**Staffordshire Trent Valley**	**31-Mar-27**	**31-Mar-39**
	Tame, Anker and Mease abstraction licensing strategy	**Tame, Anker and Mease**	**31-Mar-28**	**31-Mar-40**
	Severn Corridor Abstraction Licensing Strategy	**Severn Corridor (including Severn uplands)**	**31-Mar-22**	**31-Mar-34**
	Teme Abstraction Licensing Strategy	**Teme**	**31-Mar-25**	**31-Mar-37**
	Worcestershire Middle Severn Abstraction Licensing Strategy	**Worcestershire Middle Severn**	**31-Mar-26**	**31-Mar-38**
	Severn Vale Abstraction Licensing Strategy	**Severn Vale**	**31-Mar-27**	**31-Mar-39**
	Shropshire Middle Severn Abstraction Licensing Strategy	**Shropshire Middle Severn**	**31-Mar-27**	**31-Mar-39**
East Midlands	Derbyshire Derwent Catchment Abstraction Management Strateg	Derbyshire Derwent	31-Mar-18	31-Mar-30
	Soar Catchment Abstraction Management Strategy	Soar	31-Mar-25	31-Mar-37
	Idle & Torne Catchment Abstraction Management Strategy	Idle and Torne	31-Mar-26	31-Mar-38
	Lower Trent & Erewash Catchment Abstraction Management Str	Lower Trent and Erewash	31-Mar-27	31-Mar-39
North East	**Northumberland Rivers Abstraction Licensing Strategy**	**Northumberland Rivers**	**31-Mar-17**	**31-Mar-29**
	Tyne Abstraction Licensing Strategy	**Tyne**	**31-Mar-18**	**31-Mar-30**
	Wear Abstraction Licensing Strategy	**Wear**	**31-Mar-26**	**31-Mar-38**
	Tees Abstraction Licensing Strategy	**Tees**	**31-Mar-27**	**31-Mar-39**
	Till Abstraction Licensing Strategy	**Till**	**31-Mar-27**	**31-Mar-39**
Yorkshire	Esk and Coast Abstraction Licensing Strategy	Esk	31-Mar-26	31-Mar-38
	Derwent Abstraction Licensing Strategy	Derwent	31-Mar-25	31-Mar-37
	Swale, Ure, Nidd and Upper Ouse Abstraction Licensing Strategy	Swale, Ure, Nidd and Upper Ouse	31-Mar-17	31-Mar-29
	Wharfe and Lower Ouse Abstraction Licensing Strategy	Wharfe and Lower Ouse	31-Mar-18	31-Mar-30
	Don and Rother Abstraction Licensing Strategy	Don and Rother	31-Mar-17	31-Mar-29
	Hull and East Riding Abstraction Licensing Strategy	Hull and East Riding	31-Mar-25	31-Mar-37
	Aire and Calder Abstraction Licensing Strategy	Aire and Calder	31-Mar-27	31-Mar-39
Cumbria and Lancashire	**Ribble, Douglas and Crossens Abstraction Licensing Strategy**	**Ribble, Douglas and Crossens**	**31-Mar-28**	**31-Mar-40**
	Lune and Wyre abstraction licensing strategy	**Lune**	**31-Mar-17**	**31-Mar-29**
		Wyre	**31-Mar-18**	**31-Mar-30**
	South Cumbria abstraction licensing strategy	**South Cumbria**	**31-Mar-17**	**31-Mar-29**
	Eden and Esk abstraction licensing strategy	**Eden and Esk**	**31-Mar-18**	**31-Mar-30**
	Derwent and West Cumbria abstraction licensing strategy	**Derwent, West Cumbria**	**31-Mar-26**	**31-Mar-38**
Greater Manchester Merseyside and Cheshire	Upper Mersey abstraction licensing strategy	Tame, Goyt and Etherow	31-Mar-17	31-Mar-29
		Mersey Bollin	31-Mar-18	31-Mar-30
	Weaver and Dane abstraction licensing strategy	Weaver and Dane	31-Mar-25	31-Mar-37
	Northern Manchester abstraction licensing strategy	Northern Manchester	31-Mar-27	31-Mar-39
	Lower Mersey and Alt abstraction licensing strategy	Lower Mersey	31-Mar-28	31-Mar-40

Devon, Cornwall and the Isles of Scilly	**Tamar WFD Management Area Abstraction Licensing Strategy**	**Tamar**	**31-Mar-26**	**31-Mar-38**
	East Devon WFD Management Area Abstraction Licensing Strateg	**Exe**	**31-Mar-28**	**31-Mar-40**
		Otter, Sid, Axe and Lim	**31-Mar-17**	**31-Mar-29**
	North Cornwall, Seaton, Looe and Fowey WFD Management Area	**North Cornwall**	**31-Mar-17**	**31-Mar-29**
		Seaton, Looe and Fowey	**31-Mar-28**	**31-Mar-40**
	North Devon WFD Management Area Abstraction Licensing Strate	**Taw and North Devon Streams**	**31-Mar-18**	**31-Mar-30**
		Torridge and Hartland Streams	**31-Mar-27**	**31-Mar-39**
	South Devon WFD Management Area Abstraction Licensing Strate	**South Devon**	**31-Mar-26**	**31-Mar-38**
	West Cornwall and the Fal WFD Management Area Abstraction Li	**West Cornwall**	**31-Mar-27**	**31-Mar-39**
		Fal and St Austell Streams	**31-Mar-18**	**31-Mar-30**
Wessex	South and West Somerset Water Framework Directive Manageme	Tone	31-Mar-28	31-Mar-40
		Parrett	31-Mar-18	31-Mar-30
		Brue	31-Mar-25	31-Mar-37
		West Somerset Streams	31-Mar-26	31-Mar-38
	Bristol Avon and North Somerset Streams Water Framework Direc	Bristol Avon	31-Mar-17	31-Mar-29
		Axe and North Somerset Streams	31-Mar-25	31-Mar-37
		Little Avon	31-Mar-27	31-Mar-39
	Dorset Water Framework Directive Management Area Abstraction	Dorset Stour	31-Mar-28	31-Mar-40
		Frome, Piddle, Poole Harbour and Purbeck	31-Mar-17	31-Mar-29
		West Dorset Streams	31-Mar-26	31-Mar-38
	Hampshire Avon Water Framework Directive Management Area A	Hampshire Avon	31-Mar-25	31-Mar-37
Thames	**Thames Corridor Catchment Abstraction Management Strategy**	**Thames**	**31-Mar-28**	**31-Mar-40**
	Wey Catchment Abstraction Licensing Strategy	**Wey**	**31-Mar-27**	**31-Mar-39**
	Loddon Catchment Abstraction Licensing Strategy	**Loddon**	**31-Mar-28**	**31-Mar-40**
	Kennet and Vale of White Horse Catchment Abstraction Licensing	**Kennet**	**31-Mar-23**	**31-Mar-35**
		Vale of White Horse	**31-Mar-25**	**31-Mar-37**
	Cherwell, Thame and Wye Catchment Abstraction Licensing Stra	**Cherwell, Thame and Wye**	**31-Mar-26**	**31-Mar-38**
		Cherwell	**31-Mar-18**	**31-Mar-30**
		Thame and South Chilterns	**31-Mar-26**	**31-Mar-38**
	Cotswolds Catchment Abstraction Licensing Strategy	**Cotswolds**	**31-Mar-27**	**31-Mar-39**
Kent, South London and East Sussex	Stour Abstraction licensing strategy	Stour	31-Mar-28	31-Mar-40
	North Kent & Swale Abstraction Licensing Strategy	North Kent and Swale	30-Mar-23	31-Mar-29
	Mole Abstraction licensing strategy	Mole	31-Mar-17	31-Mar-29
	London Abstraction licensing strategy	London	31-Mar-25	31-Mar-37
	Medway Abstraction licensing strategy	Medway	31-Mar-18	31-Mar-30
	Rother Abstraction licensing strategy	Rother	31-Mar-25	31-Mar-37
	Darent & Cray Abstraction licensing strategy	Darent and Cray	31-Mar-20	31-Mar-26
	Cuckmere & Pevensey Levels Abstraction Licensing Strategy	Cuckmere and Pevensey Levels	31-Mar-24	31-Mar-26
Hertfordshire and North London	**Upper Lee Abstraction Licensing Strategy**	**Upper Lee**	**31-Mar-18**	**31-Mar-30**
	Roding Beam Ingrebourne and Mardyke Abstraction Licensing Str	**Roding, Beam and Ingrebourne**	**31-Mar-28**	**31-Mar-40**
	Colne Abstraction Licensing Strategy	**Colne**	**31-Mar-26**	**31-Mar-38**
Solent and South Downs	East Hampshire Abstraction Licensing Strategy	East Hampshire	31-Mar-28	31-Mar-40
	Arun & Western Streams Abstraction licensing strategy	Arun and Western Streams	31-Mar-28	31-Mar-40
	Isle of Wight Abstraction Licensing Strategy	Isle of Wight	31-Mar-17	31-Mar-29
	Adur & Ouse Abstraction Licensing Strategy	Adur and Ouse	31-Mar-18	31-Mar-30
	Test & Itchen Abstraction Licensing Strategy	Test and Itchen	31-Mar-25	31-Mar-37
	New Forest Licensing Strategy	New Forest	31-Mar-26	31-Mar-38

Glossary of terms

Abstraction	Removal of water from a source of supply (surface or groundwater).
Abstraction licence	The authorisation granted by the Environment Agency to allow the removal of water.
Catchment	The area from which precipitation and groundwater will collect and contribute to the flow of a specific river.
Discharge	The release of substances (i.e. water, sewage, etc.) into surface waters.
Environmental flow indicator	Flow indicator we use to prevent ecological deterioration of rivers, set in line with those set by UKTAG.
Groundwater and aquifers	Water that is found underground stored within certain types of rock called aquifers. Examples include sandstones and limestones.
Hands off flow	A condition attached to an abstraction licence which states that if flow falls below the level specified on the licence, the abstractor will be required to reduce or stop the abstraction.
Hands off level	A river or groundwater level below which an abstractor is required to reduce or stop abstraction.
Impoundment	An artificial body of water such as a pond or dam for collection or storage of water for future use.
Protected right	Means a right to abstract, which someone has by virtue of the small abstractions exemptions defined in the Water Act 2003 or by virtue of having an abstraction licence. The right protected is the quantity that can be abstracted up to that allowed by the exemption or the terms of the licence. The small abstraction exemptions defined by the Water Act 2003 are for domestic and agricultural purposes (excluding spray irrigation) not exceeding 20 m^3/d.
Surface water	This is a general term used to describe all water features such as rivers, streams, springs, ponds and lakes.
Water bodies	Units of either surface water or groundwater at which assessments are completed for WFD.

List of abbreviations

AMP	Asset Management Plans
Defra	Department for Environment, Food and Rural Affairs
EFI	Ecological Flow Indicator
EIUC	Environmental Improvement Unit Charge
EU	European Union
GEP	Good Ecological Potential
GES	Good Ecological Status
HES	High Ecological Status
NEP	National Environment Programme
Ofwat	Office of Water Services - The Water Services Regulation Authority
RSA	Restoring Sustainable Abstraction
RBMP	River Basin Management Plans
SAC	Special Areas of Conservation
SPA	Special Protection Areas
SSSI	Sites of Special Scientific Interest
WFD	Water Framework Directive
WRBP	Water Resource Business Plans
WRMP	Water Resource Management Plans

Would you like to find out more about us, or about your environment?

Then call us on
03708 506 506* (Mon-Fri 8-6)

email
enquiries@environment-agency.gov.uk

or visit our website

https://www.gov.uk/government/organisations/environment-agency

incident hotline 0800 80 70 60 (24hrs)
floodline 0845 988 1188

*** Calls to 03 numbers cost no more than a national rate call to an 01 or 02 number and must count towards any inclusive minutes in the same way as 01 and 02 calls. These rules apply to calls from any type of line including mobile, BT, other fixed line or payphone.**

GEHO0310BSBH-E-E