



# **Dove Abstraction Licensing Strategy**

A strategy to manage water resources sustainably

February 2021

We are the Environment Agency. We protect and improve the environment. We help people and wildlife adapt to climate change and reduce its impacts, including flooding, drought, sea level rise and coastal erosion.

We improve the quality of our water, land and air by tackling pollution. We work with businesses to help them comply with environmental regulations. A healthy and diverse environment enhances people's lives and contributes to economic growth.

We can't do this alone. We work as part of the [Defra](#) group (Department for Environment, Food & Rural Affairs), with the rest of government, local councils, businesses, civil society groups and local communities to create a better place for people and wildlife.

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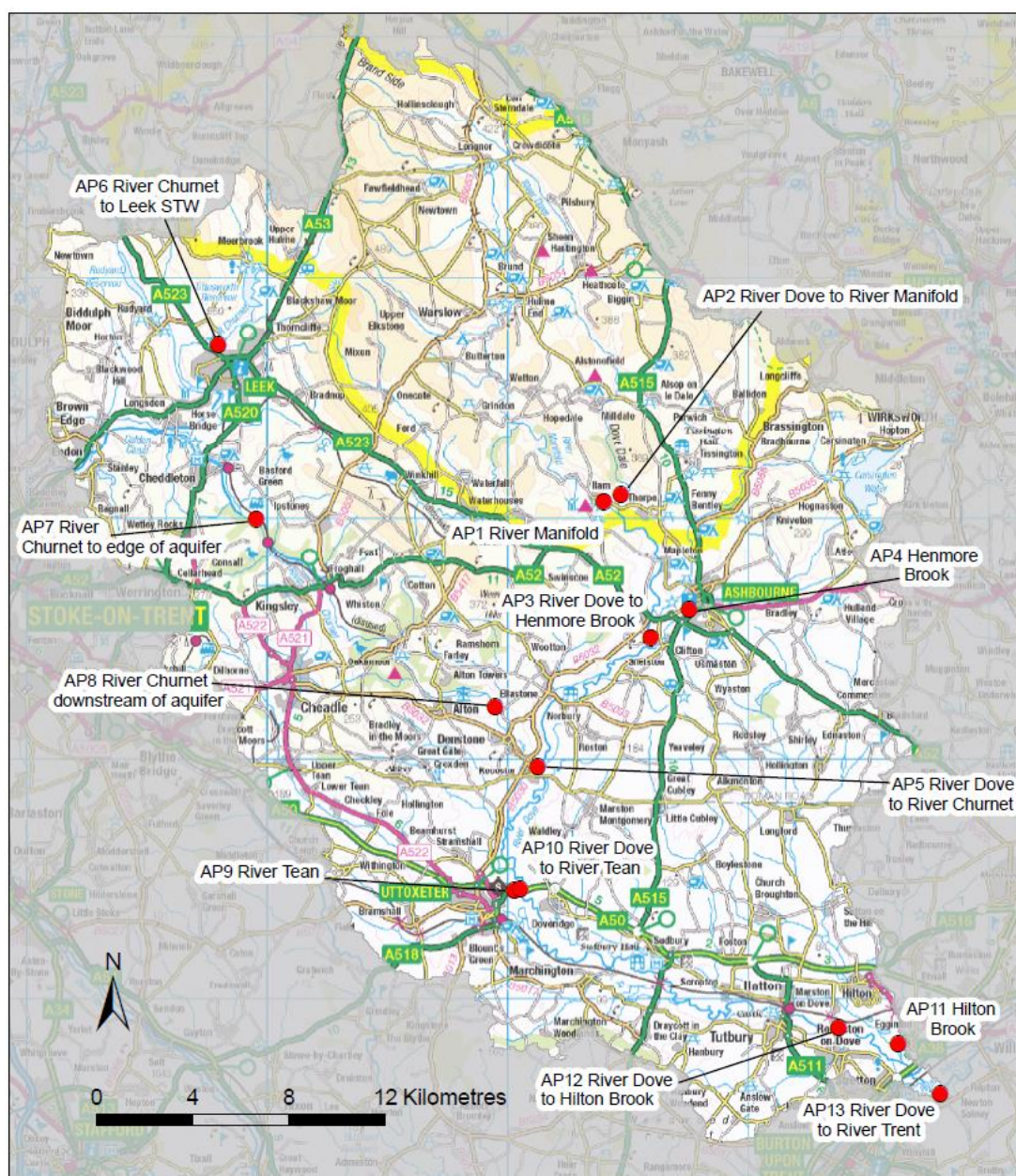
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# 1. About the licensing strategy

This strategy sets out our approach to managing new and existing [abstraction](#) and [impoundment](#) within the Dove [catchment](#) in the Humber river basin district.

The River Dove catchment drains an area of approximately 1,020 km<sup>2</sup> of north-east Staffordshire and south-west Derbyshire. It rises on Axe Edge, to the south of Buxton in the north of the catchment, and flows generally south-eastwards to its confluence with the River Trent north of Burton upon Trent. The catchment incorporates the Rivers Churnet, Tean, Manifold and Hamps, together with the Hilton, Henmore, Marchington and Rolleston Brooks. The Caldron Canal also runs through the catchment from Stoke to Froghall and Leek.

Map 1 The Dove catchment and Assessment Points (APs)



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● Assessment Points

Our approach ensures that River Basin Management Plan objectives for water resources activities are met and we avoid deterioration within this catchment.

We apply this approach to the [water body](#) in which the abstraction is located. It also applies to all downstream [surface water](#) bodies that may be affected by any reduction in abstraction-related flow, or adjacent [groundwater](#) bodies affected by any reduction in groundwater level.

Please see [Managing Water Abstraction](#) for the technical explanation, legal and policy requirements behind the Abstraction Licensing Strategy ([ALS](#)).

Please see [abstraction pages on gov.uk](#) for advice on who needs an abstraction or impoundment licence, and how to apply.

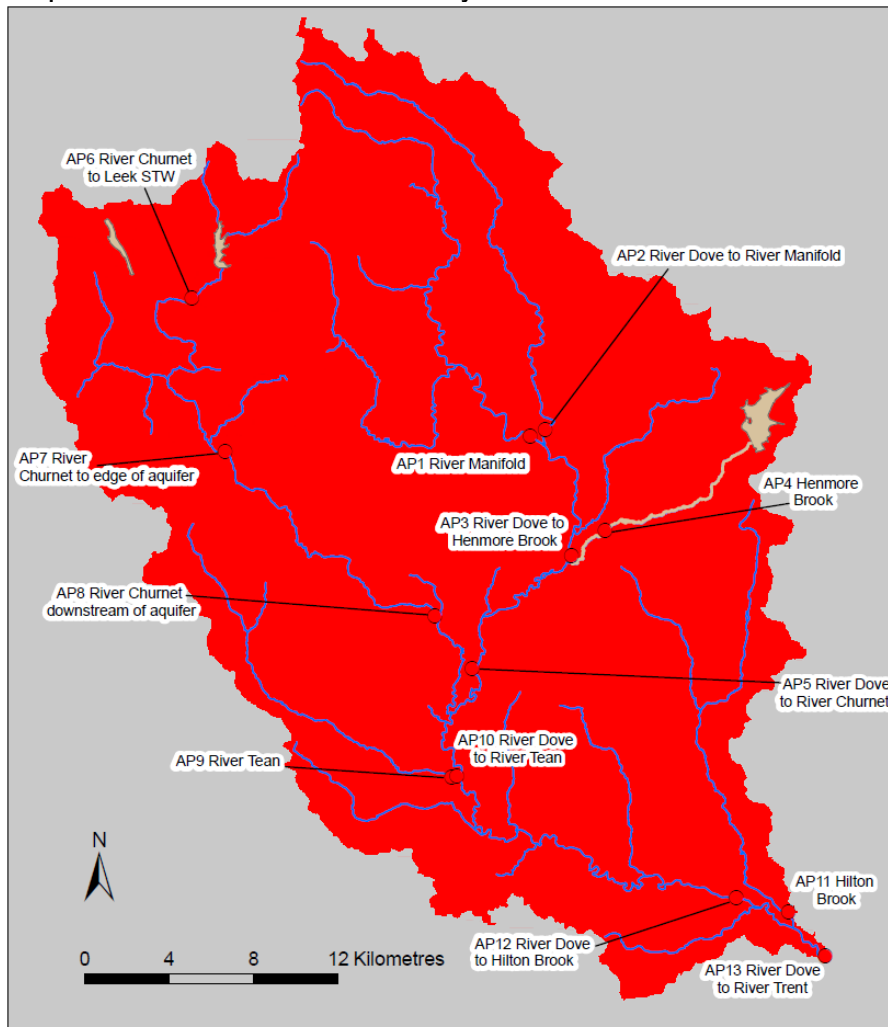


## 2. Water resource availability of the Dove ALS

### 2.1. Resource availability

The water resource availability, calculated at four different flows, Q95 (the flow of a river which is exceeded on average for 95% of the time i.e. low flow), Q70, Q50, and Q30 (higher flow) for this ALS are presented and explained in Maps 2, 3 and 4 and the subsequent text.

Map 2 Water resource availability colours at **Q95 and Q70** in the Dove catchment.



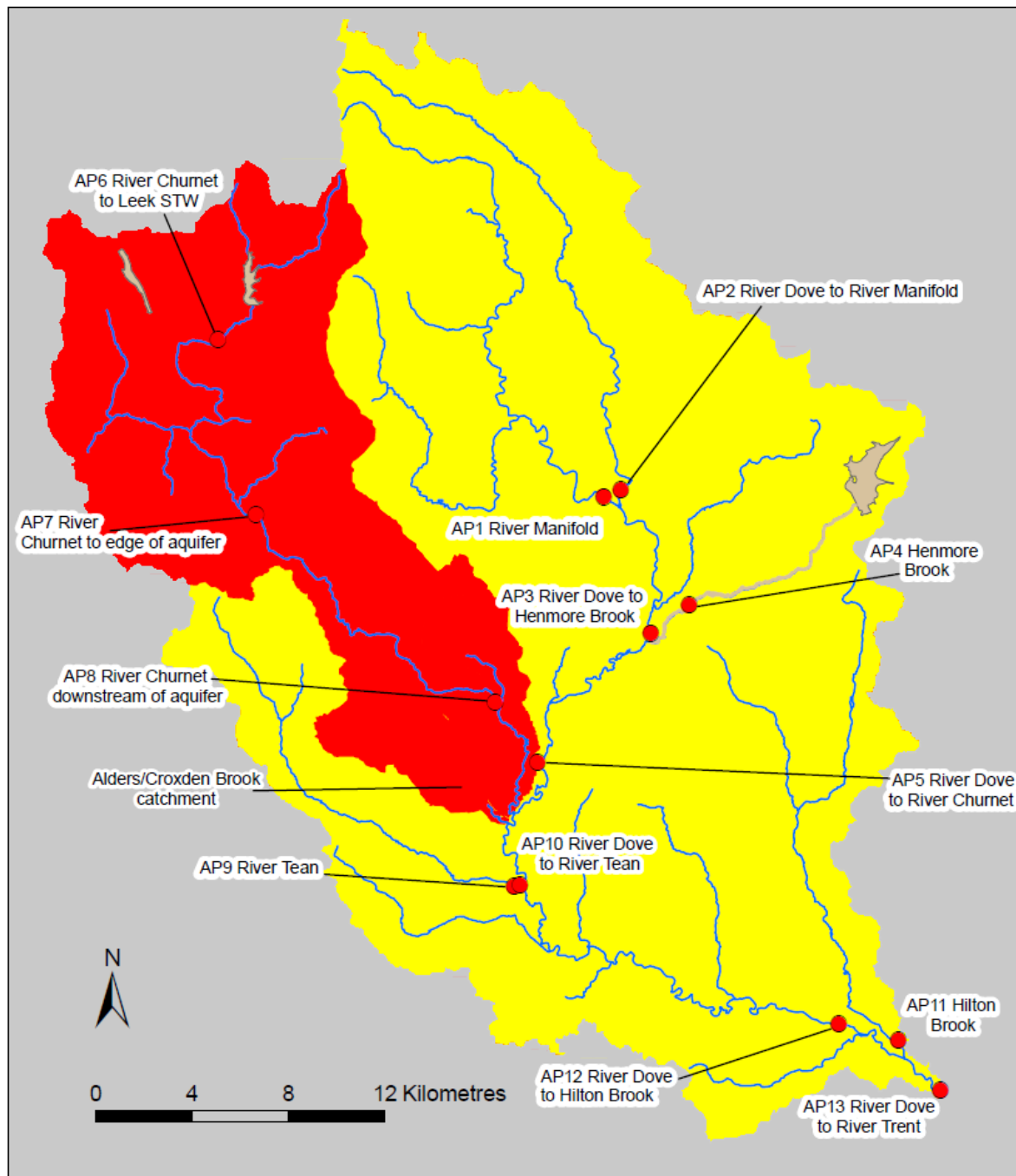
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- Assessment Points
- Heavily Modified and Artificial Rivers
- Heavily Modified Artificial lakes
- Rivers

Water Availability at Q95:

- Water available
- Restricted water available
- Water not available

Map 3 Water resource availability colours at Q50 in the Dove catchment



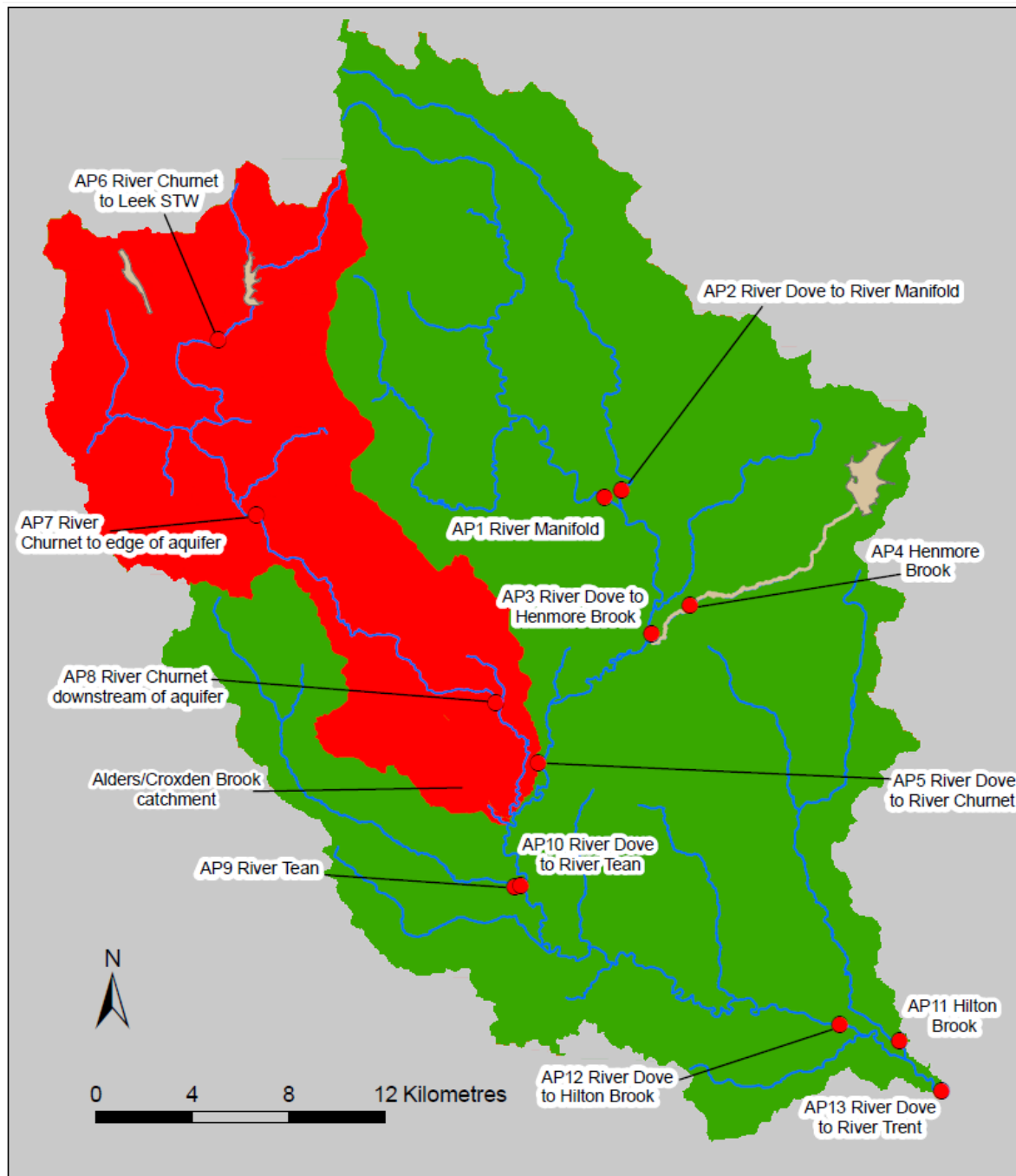
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- Assessment Points
- Heavily Modified and Artificial Rivers
- Heavily Modified Artificial lakes
- Rivers

Water Availability at Q95:

- Water available
- Restricted water available
- Water not available

Map 4 Water resource availability colours at Q30 in the Dove catchment.



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- Assessment Points
- Heavily Modified and Artificial Rivers
- Heavily Modified Artificial lakes
- Rivers

Water Availability at Q30:

- Water available
- Restricted water available
- Water not available



## Water resource availability colours and implications for licensing

### Water available for licensing

Green 

There is more water than required to meet the needs of the environment **at the flows shown** in maps 2, 3 and 4.

New licences can be considered depending on local and downstream impacts. [Consumptive](#) licences will be issued with a [hands off flow](#) (HoF) restriction to protect environmental requirements at lower flows.

### Restricted water available for licensing

Yellow 

Full Licensed flows fall below the [Environmental Flow Indicators](#) (EFIs) **at the flows shown** in maps 2, 3 and 4.

If all licensed water is abstracted at these flows there will not be enough water left for the needs of the environment. No new consumptive licences would be granted without a suitable [HoF](#) to protect the flows needed by the environment. It is likely we'll be taking action to reduce full licensed risks.

Water may be available if you can 'buy' (known as licence trading) the entitlement to abstract water from an existing licence holder. Please refer to Section 4.1.

### Water not available for licensing

Red 

Recent actual flows are below the EFI **at the flows shown** in maps 2, 3 and 4.

This scenario highlights water bodies where flows are below the indicative flow requirement to help support a healthy ecology in our rivers. We call this 'Good Ecological Status' ([GES](#)) or 'Good Ecological Potential' ([GEP](#)) where a water body is heavily modified for reasons other than water resources.

We are currently taking action in water bodies that are not supporting GES or GEP. We will not grant further licences.

Water may be available if you can buy (known as licence trading) a volume equivalent to that recently abstracted by an existing local licence holder. Please refer to Section 4.1.

### Heavily Modified Water Bodies ([HMWBs](#)) (and/or [discharge](#)-rich water bodies

Grey 

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 us to find out more.

## 2.2. Groundwater resource availability

In certain areas, resource concerns over groundwater mean that the standard water resource availability colours have been overridden. The implications of each of the groundwater resource availability colours on water availability is explained in the following text and Map 5 shows these colours for the groundwater management units (GWMUs) in the Dove catchment. Applications for new or varied groundwater abstraction areas outside of GWMUs will continue to be assessed on a case by case basis.

### Groundwater resource availability colours and implications for licensing

#### Water available for licensing

Green



Groundwater management unit balance shows groundwater is available for licensing. New licences can be considered depending on their impacts on other abstractors and providing there will be no significant impact on surface water flows, dependent wetlands, groundwater levels and they do not cause saline intrusions.

#### Restricted water available for licensing

Yellow



Groundwater management 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 surface water flows, dependent wetlands, groundwater levels or cause saline intrusions but with management options in place.

In restricted groundwater management units no new consumptive licences will be granted where the groundwater balance and/or surface water flows/groundwater dependent wetlands are at risk of becoming unsustainable as a result of existing licensed abstraction. It will be appropriate to take action to reduce 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. Please refer to Section 4.1.

#### Water not available for licensing

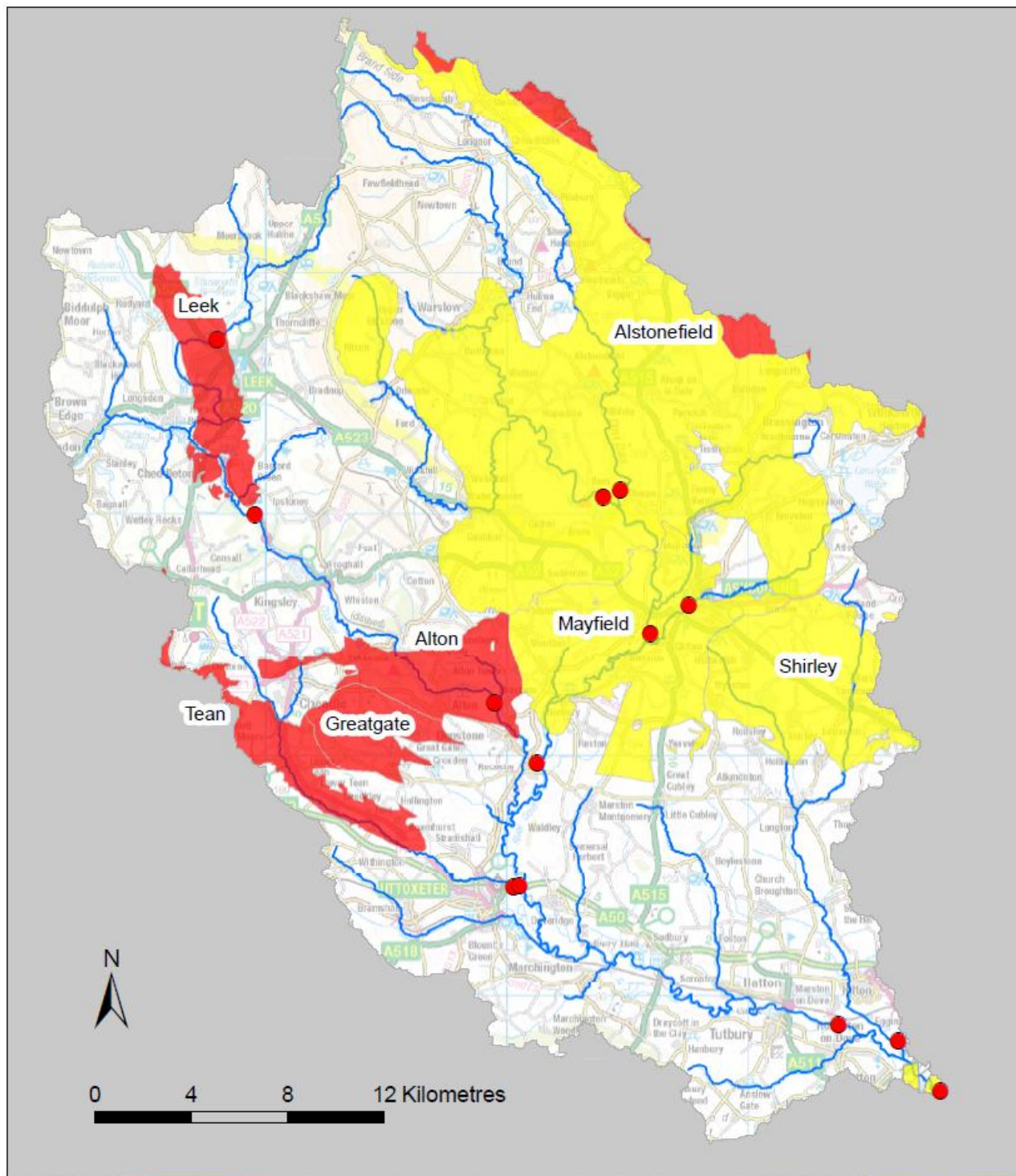
Red



Groundwater management unit balance shows more water has been abstracted based on recent amounts than the amount available.

We will not grant further consumptive licences. It will be appropriate to take action to reduce 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. Please refer to Section 4.1

Map 5 Groundwater Resource availability colours in the Dove catchment



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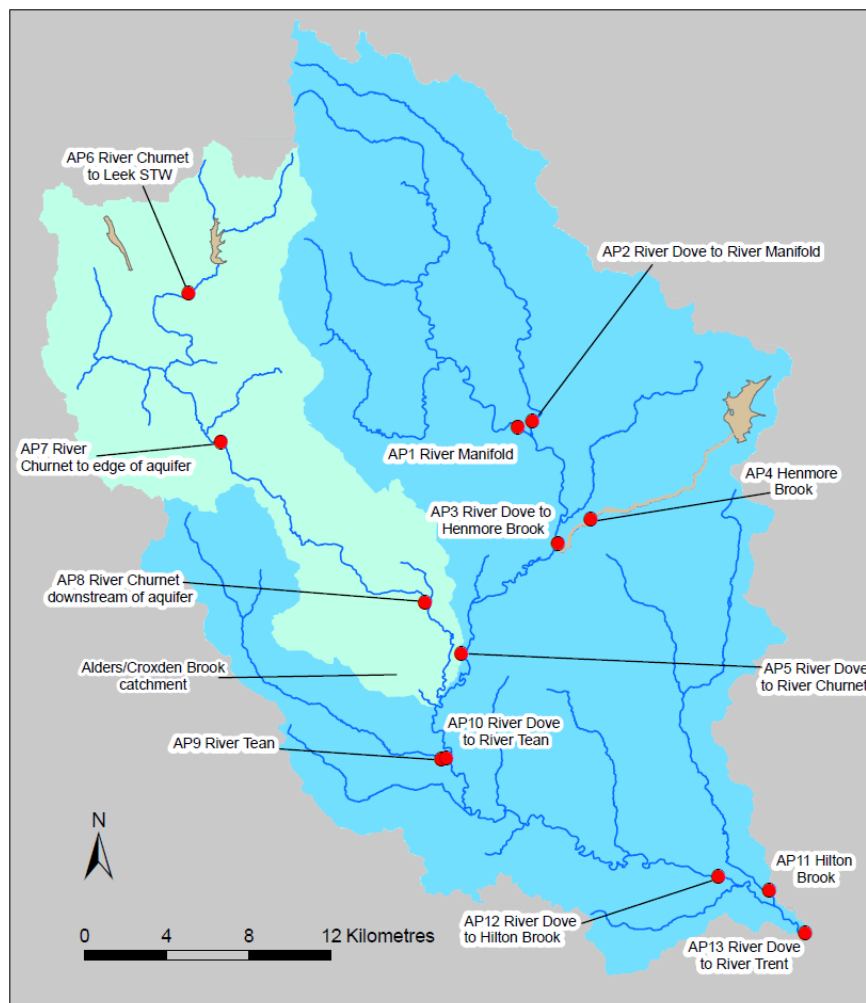
- Assessment Points
- Rivers
- Restricted water available GWMU
- Water not available GWMU

## 2.3. Resource reliability

If you want to apply for a licence, it's worth considering the reliability of your abstraction.

By assessing the quantity of water available at different flows it's possible to see when there is a surplus or deficit of water and the associated reliability of an abstraction. This is an indication only; actual reliability of a licence will be discussed when you apply.

Map 6 Water resource reliability for consumptive abstraction of the Dove catchment expressed as percentage of time available



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- Assessment Points
- Heavily Modified and Artificial Rivers
- Heavily Modified Artificial lakes
- Rivers

Percentage of the time additional consumptive resource may be available:

- Consumptive abstraction available less than 30% of the time
- Consumptive abstraction available at least 30% of the time
- Consumptive abstraction available at least 50% of the time
- Consumptive abstraction available at least 70% of the time
- Consumptive abstraction available at least 95% of the time

## 2.4. Other considerations for availability and reliability

We may have to add constraints to licences such as ‘[hands off flow](#)’ ([HoF](#)) conditions to protect the environment and the rights of other abstractors. As a result, when we grant a licence, it doesn't mean that we guarantee a supply of water. These conditions specify that if the flow in the river drops below what's needed to protect the environment, abstraction must reduce or stop. So, in dry years, restrictions are likely to apply more often, which will affect the reliability of supply.

Whilst this document may say that water is available for abstraction, this doesn't guarantee that all applications will be successful. This is because we have to determine each application on its own merits, and local factors may mean we're either unable to grant a licence as applied for, or even at all.

New licences within an [ALS](#) are usually given a Common End Date ([CED](#)), which allows them to be reviewed at the same time. The next CED for this ALS is 31 March 2030 and the subsequent one is 31 March 2042.

## 2.5. Impoundments

Applications for [impoundments](#) will be dealt with on a case by case basis. More information may be found on our [water management web pages on gov.uk](#).



## 3. How we manage abstraction in the Dove ALS

### 3.1. Surface Water Assessment points

We assess surface water flows at [Assessment points](#) (APs), which are significant points on a river, often where two major rivers join or at a gauging station. APs cover multiple surface water bodies.

To protect the environment we will issue licences with a condition referred to as a hands-off flow (HoF). It means that if the flow in the river drops below that which is required to protect the environment, abstraction must stop, hence 'hands off flow'.

Each HoF is linked to an AP and is dependent on the assessment of the river at that AP and downstream. This determines the water resource availability at that AP. In some cases additional restrictions may apply to licences where there is a more critical resource availability downstream to protect the ecological requirements of the river.

All abstraction licence applications are subject to an assessment to take account of any local and downstream issues. Tributaries to the main rivers may be subject to different restrictions and quantities and will be assessed locally on a case by case basis.

Table 1 gives an indication of how much water is available for further abstraction at each AP and the HoFs and other associated restrictions applicable to new and varied [abstraction licences](#) from the main rivers.

Reading from top to bottom in the first two columns of Table 1 are the [APs](#) in the Dove ALS area. Reading across the columns you can see the water resource availability status, potential [HoF](#) that may be applied to a licence in each AP, the number of days water may be available under this restriction and the approximate volume of water that may be available in [MI/d](#). Further information on any local conditions can be seen in the final column.

Across the River Trent catchment the water resource strategies are driven by the need to protect river levels at the bottom of the fluvial River Trent at North Muskham. Flows of 2650MI/d are needed at that point to safeguard river levels for navigation, as well as protecting flows further downstream into the Humber Estuary Special Area of Conservation (SAC).

Therefore all HoFs in the catchment have been set at local gauging stations at flows which are equivalent to, or higher than, 2650 [MI/d](#) at North Muskham gauging station. Where watercourses need further protection of flows due to unfavourable local water resource situations, we have set their [HoFs](#) at a suitable higher flow. This is the case in the River Dove catchment.

The conditions in Table 1 apply to new or varied [consumptive](#) abstractions and may not apply if the abstraction is non-consumptive (i.e. it doesn't result in a loss of water to any part of the catchment) or if the licence results in an overall environmental benefit. Any existing licence which the holder applies to have formally varied to increase the volume abstracted will be subject to the same conditions as new licences on the increased part of the licence only.

To protect fish and eels we may also require the installation of a correctly-sized screen and/or fish pass.

Licences will be issued to the Dove Common End Date (CED) of 31st March 2030. A shorter time limit or changes to the licence conditions may be required where there are risks to the sustainability of catchments.



Time-limited licences in this area will have a presumption of renewal, subject to meeting the renewal criteria (requiring the abstraction to be sustainable, justified and efficient) and local considerations. Renewals may be subject to minor changes including the addition of water efficiency conditions. We will endeavour to give six years notice if a licence will not be renewed or is to be renewed but on more restrictive terms. See Section 4.2.2.

The strategy outlined in Table 1 depends on the resource situation remaining as it currently. Any changes to major abstractions from or discharges to the catchment may result in a change in this licensing strategy or to the volumes of water available.

Table 1 Summary of the licensing approach for the assessment points in the Dove [ALS](#).

AP	Name	Water Resource Availability	HOF Restriction	Number of days per annum abstraction may be available	Approximate volume available at restriction	Additional information
1	River Manifold	Restricted Water Available	253Ml/d at Ilam gauging station	142	22Ml/d (from the whole of the River Manifold catchment. Less will be available upstream and from tributaries).	
2	River Dove u/s River Manifold	Restricted Water Available	170Ml/d at Izaak Walton gauging station	135	14Ml/d (from the whole of the River Dove catchment upstream of the River Manifold. Less will be available upstream and from tributaries).	
3	River Dove u/s Henmore Brook	Restricted Water Available	1000Ml/d at Marston on Dove gauging station	See AP12	See AP12	
4	Henmore Brook	Restricted Water Available	1000Ml/d at Marston on Dove gauging station	See AP12	See AP12	
5	River Dove u/s River Churnet	Restricted Water Available	1000Ml/d at Marston on Dove gauging station	See AP12	See AP12	

AP	Name	Water Resource Availability	HOE Restriction	Number of days per annum abstraction may be available	Approximate volume available at restriction	Additional information
6	River Churnet u/s Leek STW	Water Not Available				Remains closed to further abstraction.
7	River Churnet u/s edge of aquifer	Restricted Water Available	260MI/d at Quixhill gauging station	See AP8	See AP8	The River Churnet upstream of the Endon Brook and the Endon Brook itself will remain closed to further abstraction.
8	River Churnet d/s aquifer	Restricted Water Available	260MI/d at Quixhill gauging station	106	17MI/d (from the whole of the River Churnet. Less will be available upstream and from tributaries).	This HoF limits consumptive abstraction to high flows above Q29.
9	River Tean	Restricted Water Available	1000MI/d at Marston on Dove gauging station	See AP12	See AP12	
10	River Dove u/s River Tean	Restricted Water Available	1000MI/d at Marston on Dove gauging station	See AP12	See AP12	The Alders Brook/Crox-den Brook catchment will remain closed to further abstraction.
11	Hilton Brook	Restricted Water Available	1000MI/d at Marston on Dove gauging station	See AP12	See AP12	
12	River Dove u/s Hilton	Restricted Water Available	1000MI/d at Marston on Dove gauging	139	90MI/d (from the whole of the River Dove catchment. Less	This HoF limits consumptive abstraction to

AP	Name	Water Resource Availability	HOF Restriction	Number of days per annum abstraction may be available	Approximate volume available at restriction	Additional information
	Brook		station		will be available upstream and from tributaries)	high flows above Q38.
13	River Dove to River Trent	Restricted Water Available	1000MI/d at Marston on Dove gauging station	See AP12	See AP12	

### 3.2. Groundwater

Principal aquifers are designated as named groundwater bodies (GWB). We may divide GWBs into smaller groundwater management units (GWMU). We use the status and objectives of GWBs together with the available information and assessments on GWMUs to determine water availability and licence restrictions.

Where groundwater abstractions directly impact on surface water flows, including reduction of base flow, the impact is measured at the surface water [AP](#). In these cases, restrictions may be applied to licences, such as Hands off Level (HoL) or [Hands off Flow](#) (HoF) conditions. The [HoL](#) is a groundwater level below which an abstractor is required to reduce or stop abstraction. The [HoF](#) is applied when flows fall below a certain rate in a connected watercourse.

Other restrictions may apply where availability is limited or to protect the environment, for example to prevent saline intrusion.

Table 2 Summary of licensing approach for abstraction from the principal aquifers in the Dove catchment.

Groundwater body and status	Groundwater management unit	Resource availability colour and licence restrictions on groundwater abstractions
Dove - PT Sandstone Mayfield  This groundwater body is considered to be Good quantitative status but is at risk of deterioration.	Alton Greatgate Teian	Water Not Available for Licensing.  No new consumptive abstractions will be granted.  Opportunities to reduce fully licensed risks will be taken. Time limited licence renewals will require changes to reflect historic usage in order to manage the risk of future deterioration to the environment.
Dove - PT Sandstone Mayfield  This groundwater body is considered to be	Shirley Mayfield	Restricted water available for licensing.  These GWMUs are in a larger GWB that is at Good Status but is at Risk of Deterioration. No new consumptive licences will be granted as

Groundwater body and status	Groundwater management unit	Resource availability colour and licence restrictions on groundwater abstractions
Good quantitative status but is at risk of deterioration.		this would increase the risk of deterioration in the Groundwater Body. It will be appropriate to take action to reduce fully licensed risks.  Licence trades will be considered with licence holders located within Groundwater Management Units with the status "Water Not Available for Licensing" to improve overall sustainability. Trades will only be considered if the applicant can clearly demonstrate that the new abstraction will not compromise GWB objectives or result in deterioration.
Dove - PT Sandstone Leek  This groundwater body is considered to be Poor quantitative status and is at risk of deterioration.	Leek	Water Not Available for Licensing.  No new consumptive abstractions will be granted.  Opportunities to reduce fully licensed risks will be taken. Time limited licence renewals will require changes to reflect historic usage in order to manage the risk of future deterioration to the environment.
Dove - Carboniferous Limestone  This groundwater body is considered to be Good quantitative status and is probably not at risk of deterioration	Alstonefield	Restricted water available for licensing.  Local impacts are likely to occur on surface water flows in the in the Dove and Manifold Surface Water Systems and associated dependent wetlands.  Further abstraction can be considered if applicants can confirm that there is no impact on other abstractors, the aquatic environment and river flows. A HoF of 253Ml/d at Ilam or 170Ml/d at Izaak Walton gauging station will be applicable due to the importance of baseflow discharges to river flows.

### Secondary Aquifers

New groundwater licence applications for abstraction from secondary aquifers will continue to be assessed on a case by case basis. Consideration will include potential impacts on existing water users, groundwater dependent terrestrial ecosystems, groundwater resources, surface water level and flow. We must ensure that no deterioration of the water environment is allowed to occur.

### 3.3. Protected areas

UK law provides a very high level of protection to two types of designated sites due to their special environment. These are:

- Special Areas of Conservation ([SAC](#)), which contribute to biodiversity by maintaining and restoring habitats and species;
- Special Protection Area ([SPA](#)), which provides protection to birds and their nests, eggs and habitats

The Dove catchment has many water-dependent areas of significant ecological value, five of which are SACs. We have a duty to maintain and improve these sites. Any water management strategy, or licence, determined by us should not result in degradation to the SAC (unless the implications of such actions have serious potential impacts on human health or public safety). The SACs in this catchment include Ballidon Dale, Dove Valley and Biggin Dale, and Longdale, which are part of the Peak District Dales. The section of the River Dove included in the Peak District Dales SAC is of international importance for native white-clawed crayfish habitat as well as populations of bullhead and brook lamprey.

The other major SAC and SPA in the catchment is South Pennine Moors, which includes Leek Moors. This is an area of blanket bog, European dry heath and old sessile oak woodlands.

Ramsar sites and Sites of Special Scientific Interest ([SSSI](#)) also carry a high level of environmental importance. They are key sites nationally for conservation of the country's biological and geological heritage. SSSI's are protected in British law by the Wildlife and Countryside Act and we have special consultation duties for any activity that may affect them.

The whole of the River Dove is a designated fishery, the upper part of the catchment being a designated salmonid fishery and the lower end a designated cyprinid fishery. The catchment is key to the Trent Salmon Restoration Project, providing spawning and juvenile habitat that sustain the run of adult fish in the Trent catchment.

The River Churnet is a wild brown trout fishery from Leek upstream to beyond Tittesworth Reservoir (AP6). This section provides important spawning and juvenile habitat for trout that feed downstream into other sections that are fished. Brook lampreys (Annex II Habitats Directive) are present in this section. Coarse fish dominate the section between Leek and the edge of the aquifer (AP7) which is impounded by a number of weirs. The section from the edge of the aquifer to the River Dove confluence (AP8) is a high quality trout, grayling and coarse fishery.

The SAC sites, as well as examples of water-dependent Sites of Special Scientific Interest, can be seen in Table 3.

Table 3 Important local features that may affect water availability

Feature	Site name
Water related Sites of Special Scientific Interest (SSSI)	Including: Churnet Valley Combes Valley Dimmingsdale and the Ranger Dove Valley and Biggin Dale Forest Banks Froghall Meadow and Pastures Hamps and Manifold Valleys Hulland Moss Old River Dove Parwich Moor Stanton Pastures and Cuckoocliffe Valley Swineholes Wood and Black Heath

	Thornccliffe Moor
<b>Water related Special Areas of Conservation (SAC)</b>	Bees Nest and Green Clay Pits Parts of the Peak District Dales Parts of the South Pennine Moors
<b>Water related Special Protection Area (SPA)</b>	Peak District Moors (South Pennine Moors Phase 1)



## 4. Managing existing licences

### 4.1. Water rights trading

A water rights trade is where a person sells all or part of their water right, as defined by their abstraction licence(s), to another person on a permanent or temporary basis. In the majority of cases a trade will involve a change in abstraction location and/or use which we will need to approve through the issue or variation of abstraction licences.

In licensing trades, as with new abstraction licences, we need to make sure that we don't cause any deterioration in water body status both within the water body / bodies where the trade will take place and to downstream water bodies. The section below provides a guide to the potential for trading in water bodies of a particular [ALS](#) water resource availability colour, as shown on maps 2, 3, 4 and 5.

To find out more about licence trading please go to our [water management web pages on gov.uk](https://www.gov.uk/water-management)

#### Guide to potential water rights trading in the Dove ALS

##### Water available for licensing

Green 

Trades of recent actual abstraction and licensed abstraction are allowed, but little demand for trading is expected as water is available for new abstractions.

##### Restricted water available for licensing

Yellow 

There may be opportunities for licence holders to trade up to their full licensed quantities, but the quantities of water available to trade may be restricted once levels of actual abstraction reach sustainable limits. We will not permit licence trades in water bodies/groundwater management units where we are taking action to prevent deterioration unless the trade is consistent with achieving water body objectives.

##### Water not available for licensing

Red 

We will only trade up to recent actual abstraction as no increase in recent actual abstraction is permitted in these water bodies/groundwater management units. Licensed abstraction will be recovered for the environment.

##### HMWBs

Grey 

Opportunities for trading will depend on local operating agreements and local management.

### 4.2. Taking action on unsustainable abstraction

#### 4.2.1. Action being taken on unsustainable abstraction in the Dove ALS

We need to prevent any deterioration caused by an increase in abstracted water (within licensed limits) and therefore protect the dependent environment and/or ecology. We have set out plans to address unsustainable abstraction in our joint Defra/Environment Agency Abstraction Plan. We will take action as follows to tackle unsustainable abstraction from

surface water and groundwater to ensure we support good ecological status and manage the risk of deterioration.

### **Revocation for non-use / reduction of underused licences**

We will continue to target unused and underused licences in the catchment with the aim of reducing licensed abstraction which is not being used. This helps to remove the risk of future deterioration and may release unused water for future licensing.

### **Changes to time limited licences**

During the renewal process we will take into account the current licence conditions, the status of the water body or groundwater management unit, past licence use and water efficiency when deciding if changes are required. Our approach will depend on whether it is a surface water or a groundwater abstraction, and the water availability status.

In general, licences will be reissued on the same terms to the Dove Common End Date (CED) of 31st March 2030 where:

- renewal of the licence does not pose a risk of deterioration in ecological or any other status;
- the quantities are justified and;
- the water is used efficiently.

A shorter time limit or changes to the licence conditions may be required where there are risks to the sustainability of catchments. See Section 4.2.2 for more information.

### **Water Industry National Environment Programme (WINEP) and Asset Management Plans (AMP)**

Through these programmes we work with the water companies to investigate and deliver environmental improvements which are needed to meet Water Framework Directive and national targets. Water companies will be carrying out investigations in AMP7 to understand the risk of deterioration due to planned sustained increases in abstraction from their sources. They will have to implement changes to prevent deterioration before deterioration is predicted to occur.

### **Restoring Sustainable Abstraction (RSA)**

This is the Environment Agency's programme of work to review unsustainable abstraction. Where water abstractions cause or potentially cause actual flows to fall short of the EFIs and result in environmental damage, we have been changing or revoking existing abstraction licences in order to achieve a sustainable abstraction regime.

### **Serious Damage**

In order to be classified as being at Serious Damage a [water body](#) must meet the following 3 criteria:

- Be identified as being Band 3 non-compliant for flow. This means that they are experiencing severe levels of abstraction pressure causing recent actual flows to fall into deficit against the [EFI](#).
- Have an overall WFD status of less than 'Good',
- Have the abstraction of water and subsequent low flows confirmed as the reason for not achieving 'Good' WFD status.

New applications for abstraction from waterbodies that are classified as being at Serious Damage will be assessed on a case by case basis, to ensure that no deterioration of the water

environment is allowed to occur. In the Dove catchment there is one waterbody confirmed as being at Serious Damage – the Alders/Croxden Brook.

More information on these programmes is available in our Abstraction Plan on gov.uk <https://www.gov.uk/government/publications/water-abstraction-plan-2017/water-abstraction-plan-environment>.

#### **4.2.2 Guide to renewing time limited licences based on water resource availability colour**

If you wish to discuss the renewal of your current licences then please contact our National Permitting Service. Our approach will depend on whether it is a surface water or a groundwater abstraction, and the water availability status.

There is a presumption of renewal for time limited licences, subject to the three renewal criteria (environmental sustainability, continued justification of need and efficient use of water) and local considerations.

Water availability colours for surface water at Q95, Q70, Q50 and Q30 can be found on maps 2, 3 and 4 and for each Groundwater Management Unit on map 5.

#### **Surface water abstraction licences**

Surface water licences will be renewed on the following broad principles around environmental sustainability:

##### **Water available for licensing**

Green



We will consider renewing the licence at the same quantities, subject to the renewal criteria, when the waterbody, and downstream waterbodies, have environmentally sustainable rates of water abstraction both now and at times when abstractors take their full licensed quantities of water.

##### **Restricted water available for licensing**

Yellow



On renewal of abstractions in waterbodies where full licensed flows have fallen below the EFI, we may seek to reduce unused portions of licensed quantities to reduce the risk of surface water bodies becoming unsustainable at fully licensed rates of abstraction or the ecology deteriorating compared to the River Basin Management Plan (RBMP) 2015 baseline.

##### **Water not available for licensing**

Red



These surface water bodies are already subject to unsustainable rates of abstraction so we will need to renew the licences with measures to help restore that waterbody to a sustainable level of abstraction.

On renewal, time limited licences may be capped at historic maximum abstraction. This will reduce the risk of abstraction from surface water bodies becoming increasingly unsustainable at fully licensed rates of abstraction or the ecology deteriorating compared to the River Basin Management Plan (RBMP) 2015 baseline. We will also consider more restrictive terms and conditions such as [hands off flow](#)/level conditions.

Where measures are still under investigation, then a licence would be renewed with a cap at historic maximum uptake and may be time-limited to an earlier date.

### Groundwater abstraction licences

Unsustainable groundwater abstraction and the associated environmental impacts are largely associated with the Dove - PT Sandstone Leek Groundwater Body. As a result of historical licensing, the groundwater resource balance is unsustainable resulting in level and flow impacts on groundwater, surface water or wetland systems. This groundwater body is considered to be at overall poor status and at risk of deterioration. No new consumptive abstractions will be granted. We will take opportunities to reduce fully licensed risks.

The Dove - PT Sandstone Mayfield Groundwater Body is considered to be at Good status but at risk of deterioration. Individual Groundwater Management Units within this Groundwater Body have unsustainable rates of groundwater abstraction. To protect the overall status of the Groundwater Body no new consumptive licences will be granted. We will take appropriate action to reduce fully licensed risks.

Individual Groundwater Management Unit status and water availability is summarised in Section 3.2.

Groundwater licences will be renewed on the following broad principles around environmental sustainability:

#### Water available for licensing

Green



We will consider renewing the licence at the same quantities when the groundwater body/groundwater management unit, overlying rivers and associated wetland habitats have environmentally sustainable rates of water abstraction both now, and at times when abstractors take their full licensed quantities of water.

#### Restricted water available for licensing

Yellow



If the groundwater/surface water bodies and/or groundwater management unit in which the groundwater abstraction sits are at risk of deterioration, time limited renewals may require licence changes to reflect historic usage in order to manage the risk of deterioration i.e. reduce fully licensed risk.

#### Water not available for licensing

Red



If the groundwater/surface water bodies and/or groundwater management unit in which the groundwater abstraction sits are already subject to unsustainable rates of abstraction, we will renew the licence with measures to help restore a more sustainable level of abstraction. These measures could be licence quantity reductions or [Hands off Flow](#)/level conditions. Where 'water body' scale measures are still under investigation, then licence changes to reflect historic usage and a short time-limit will be applied. Requirements for any further licence changes (reductions, [HoFs](#) etc.) can then be assessed on the subsequent renewal.

### 4.2.3 Current schemes tackling unsustainable abstraction in the Dove catchment.

#### **Carsington Reservoir/Henmore Brook (AP4)**

The water resource availability colour is Restricted Water Available.

Carsington Reservoir is an [RSA](#) site. Compensation flows from the reservoir have been reviewed with the aim of improving support to the brook throughout the flow range. The ecology of the brook is currently at Good or higher status so no mitigation measures were required for the compensation releases from the reservoir (as there wasn't an impact to mitigate for). Severn Trent Water Limited's licence specifies a minimum compensation release from the reservoir throughout the year and has been varied to increase compensation requirements twice a year in August to September. This is to increase flow variability downstream and flushing of fine sediments, within the constraints of the existing infrastructure. There are also plans for catchment measures in [AMP7](#) to improve habitat and/or water quality.

#### **Tittesworth Reservoir/Upper River Churnet (AP6)**

The water resource availability colour is No Water Available.

Severn Trent Water Limited investigated the effects of compensation flows from Tittesworth Reservoir on the local ecology between 2000 and 2017. Work included desk studies and a programme of flow, water quality and ecological monitoring. The licence has been varied to simplify the compensation flow requirements and include other sampling and surveying conditions. The results of these will determine the need for any further changes.

#### **Rudyard Reservoir Catchment (AP6)**

The water resource availability colour is No Water Available.

In [AMP5](#) and [AMP6](#) investigations into the impacts of abstraction from Severn Trent Water boreholes concluded that the existing levels of abstraction at those sites are not significantly affecting the Rudyard tributaries; water quality and sedimentation are having more of an impact on the ecology.

There will be further investigations of the impacts of local public water supply boreholes as part of a larger programme of 'no deterioration' work in [AMP7](#).

#### **Croxden Brook (AP10)**

The water resource availability colour is No Water Available.

During [AMP3](#) Severn Trent Water were funded to implement a flow augmentation scheme for Croxden Brook. For a number of years complaints had been received from local residents about the Croxden Brook drying up. An investigation showed that flows had decreased at our gauging station on the brook since 1992 and could be partly attributed to the Great Gate abstraction owned and operated by Severn Trent Water. An augmentation borehole has been completed and licensed and is in operation. Flows in the brook will not be available for new abstractions.

#### **Egginton abstraction (AP13)**

The water resource availability colour is Restricted Water Available.

The public water supply abstraction at the bottom of the River Dove at Egginton is the largest abstraction in the catchment. Through an [RSA](#) scheme, Severn Trent Water investigated the effect of its abstraction on the local ecology between 2010 and 2017. Work included desk studies and a programme of flow, water quality and ecological monitoring. Trials were undertaken in 2015 and 2016 to assess changes to the quantity and quality of in-river habitat

that arose from changes in abstraction. As a result of the trials it was concluded that the habitat changes were minor and not considered significant in the context of habitat availability in the wider survey reach. A licence condition that linked abstraction and river flows to reservoir storage will be removed from their abstraction licence.

### **4.3. Regulating currently exempt abstraction**

As the abstraction licensing system in England and Wales developed over the past 50 years, certain abstractions remained lawfully exempt from licensing control. This meant that those exempt abstractions could potentially take unlimited amounts of water, irrespective of availability and without regard to impacts on the environment or other abstractors.

Following two public consultations Government introduced new Regulations which took effect from 1st January 2018. The Water Resources (Transitional Provisions) Regulations 2017 removed the majority of previous exemptions from licensing control and those previously exempt abstractors will now require a licence to lawfully abstract water.

The main activities affected are:

transferring water from one inland water system to another in the course of, or as the result of, operations carried out by a navigation, harbour or conservancy authority;

abstracting water into internal drainage districts;

dewatering mines, quarries and engineering works, except in an emergency;

warping (abstraction of water containing silt for deposit onto agricultural land so that the silt acts as a fertiliser);

all forms of irrigation (other than spray irrigation, which is already licensable), and the use of land drainage systems in reverse (including transfers into managed wetland systems) to maintain field water levels;

abstracting within currently geographically exempt areas, including some rivers close to the borders of Scotland; and

abstractions covered by Crown and visiting forces (other than Her Majesty the Queen and the Duchies of Cornwall and Lancaster in their private capacity).

Where we have had details of these abstractions, we've included them in our assessments to consider how they impact on the catchment. We will include the details of any others as and when they are licensed.



## 5. List of abbreviations

### **ALS**

Abstraction Licensing Strategy.

### **AMP**

Asset Management Plan; they run in five year cycles. AMP6 is the 6th Asset Management Plan since water company privatisation in 1989.

### **AP**

Assessment Point.

### **CED**

Common End Date.

### **Defra**

Department of Environment Food and Rural Affairs.

### **EFI**

Ecological Flow Indicator.

### **GEP**

Good Ecological Potential.

### **GES**

Good Ecological Status.

### **GW**

Groundwater.

### **HMWB**

Heavily Modified Water Body.

### **HoF**

Hands off Flow.

### **HoL**

Hands off Level.

### **MI/d**

Megalitres per day.

### **RSA**

Restoring Sustainable Abstraction

### **SAC**

Special Areas of Conservation.

### **SPA**

Special Protection Areas.

### **SSSI**

Sites of Special Scientific Interest.

**UKTAG**

United Kingdom's Technical Advisory Group.

**WB**

Water body.

**WFD**

Water framework Directive.

## 6. Glossary

### **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.

### **Assessment point**

A significant point on a river, often where two major rivers join or at a gauging station.

### **Catchment**

The area from which precipitation and groundwater will collect and contribute to the flow of a specific river.

### **Consumptive abstraction**

Abstraction where a significant proportion of the water is not returned to the source of supply after use. For example for the use of spray irrigation.

### **Discharge**

The release of substances (for example, water, treated sewage effluent) into surface waters.

### **Environmental flow indicator**

Flow indicator to prevent environmental deterioration of rivers, set in line with new UK standards set by [UKTAG](#).

### **Groundwater**

Water that is contained in underground rocks.

### **Hands off flow**

A condition attached to an abstraction licence which states that if flow (in the river) falls below the level specified on the licence, the abstractor will be required to reduce or stop the abstraction.

### **Impoundment**

A structure that obstructs or impedes the flow of inland water, such as a dam, weir or other constructed works.

### **Surface water**

This is a general term used to describe all water features such as rivers, streams, springs, ponds and lakes.

### **Water body**

Units of either surface water or groundwater which we use to assess water availability.

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