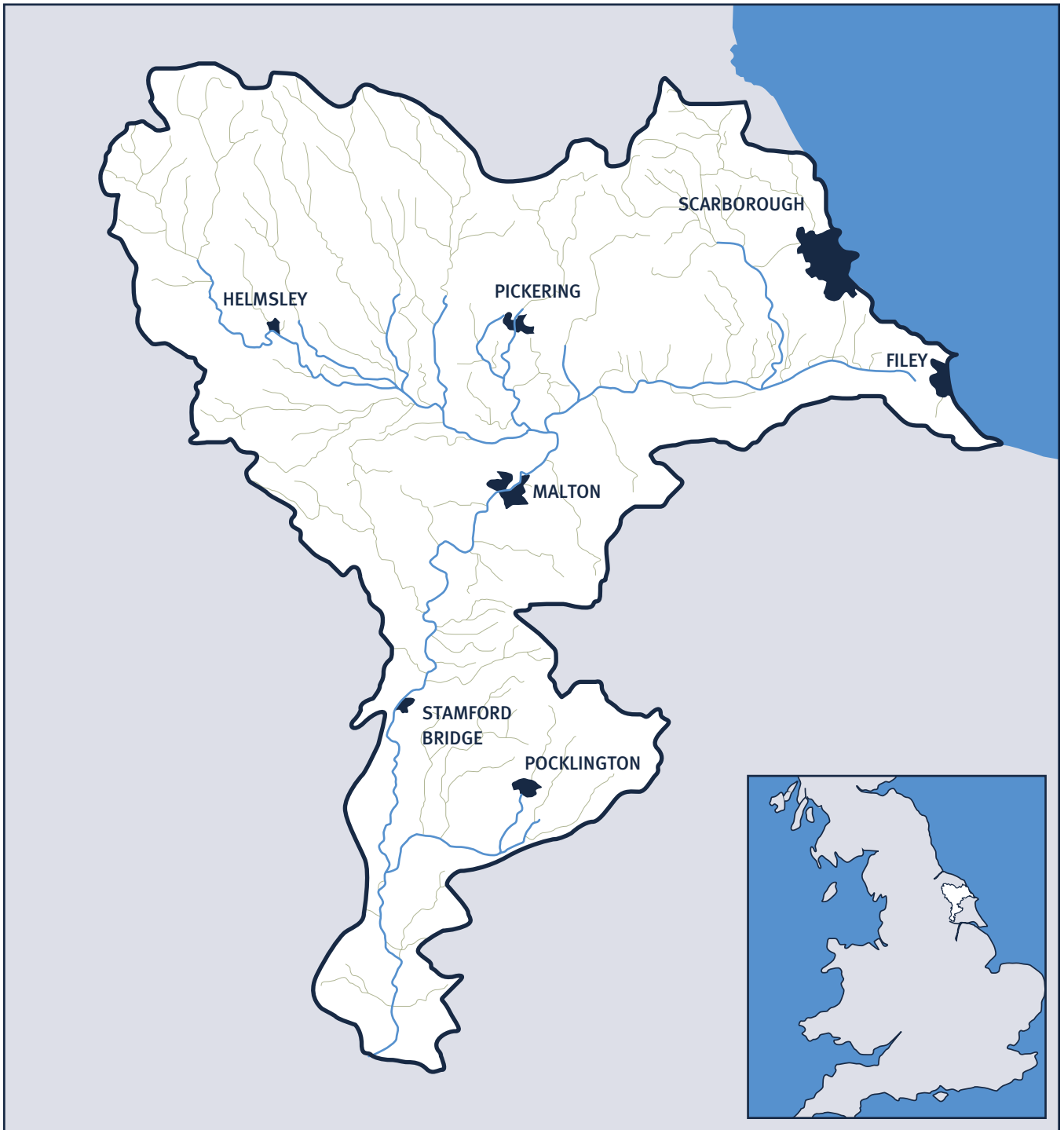


Derwent CAMS area overview



Legend

- Town
- Rivers in the Derwent CAMS area
- Sea
- Derwent CAMS area

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0 5 10 20 Kilometres



Foreword

Water is one of the most important natural resources that we have: it is essential for life. We often take it for granted yet it needs careful management if we are to ensure there is enough for all of our uses and for the environment.

Understanding how much water we have, in either rivers or below the ground, is crucially important so that we can manage it for the benefit of the natural environment and ourselves. This Management Plan is based on sound science and clearly explains how much water we need for the environment and how much is available for use. In this catchment the major use is abstraction for public water supply. This makes it even more important that we manage this special resource with great care, for ourselves, our environment and for the future.

Area Manager

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Document structure and accompanying documents

What are CAMS?

Sections 1 and 2 outline what this strategy is for and the area that it covers.

The abstraction licensing strategy

This is the main part of the document. If you are an existing water abstraction licence holder it is this section that outlines what this strategy will mean for you. If you want to abstract water it outlines where water is available for further abstraction.

Section 3 of this document outlines the main principles of abstraction licensing that we follow in the catchment.

Section 4 outlines in more detail our abstraction licensing strategy for each part of the catchment.

Section 5 outlines how we are going to implement the strategy.

Technical information

The detailed technical information used to develop this strategy and information about how we made our decisions is included in **Appendix 1**. This is on a CD at the back of this document.

Updates to this strategy

We will update this strategy every year. The update will be published on our website at www.environment-agency.gov.uk/cams. Please contact us on **08708 506506** if you want more information.

1.0

This strategy sets out how we will manage water resources in the catchment. It provides you with information about how we will manage existing abstraction licences and the availability of water for further abstraction.

Your local CAMS

This is the Catchment Abstraction Management Strategy (CAMS) for the Derwent catchment. It sets out how we will manage water abstraction until 2012. It outlines where water is available, and if relevant, where we need to reduce current rates of abstraction. We also outline our policy on time limited licences and whether existing licences should be renewed and, if so, on what terms. If water is available we will give you an **indication** of the reliability of a potential abstraction licence.

Once you have read this strategy, if you want to abstract water, you should contact us to find out if you need an abstraction licence. If you do require a licence we will advise on the likely reliability of a proposed abstraction and any issues that could affect the likelihood of a licence being issued.

You can get more information about water availability and how to apply for an abstraction licence by contacting us on **08708 506506**.

The Derwent CAMS sets out how much water is available in the catchment and our strategy for managing this water now and in the future. The Derwent CAMS is the third of five CAMS to be produced in the Dales area. This is a rolling programme and we will review the Derwent CAMS in six years.

A Technical Document for the Derwent CAMS, which contains the detailed technical information on which we have based this strategy, is available on the attached CD. You can also come and view a printed copy of this document at the address below.

The attached CD also contains the document *Managing Water Abstraction: The Catchment Abstraction Management Strategy Process*. This document sets out both the national policy and the regulatory framework within which CAMS operates. If you would like to be sent a paper copy of *Managing Water Abstraction* please contact us at the following address:

Regulatory Officer (CAMS)
Water Resources
Environment Agency
Coverdale House
Aviator Court
Amy Johnson Way
Clifton Moor
York
YO30 4GZ

Tel: 08708 506506
Fax: 01904 693748
Email: cams.dales@environment-agency.gov.uk

2.0

The Derwent CAMS covers an area of approximately 2,057km² and includes the towns of Pocklington, Stamford Bridge, Malton, Pickering, Helmsley, Filey and Scarborough. The catchment area includes the River Derwent, River Rye, River Hertford, Bielby Beck, Pocklington Canal and other tributaries.

The CAMS area

The Derwent CAMS area is primarily rural with grazing moorland in the upland areas, varying agricultural uses at lower levels, and large areas of designated conservation sites. The population and economy are generally concentrated in and around the towns of Scarborough, Malton, Pickering and Pocklington. The CAMS rivers and main urban areas in the Derwent CAMS are shown on Map 1 on page 1.

The CAMS area is bounded by the Cleveland Hills, North York Moors and Hambleton Hills to the north of the catchment, the Wolds and the coast to the east, the Vale of York to the west, and the River Ouse and Humber Estuary to the south. The Corallian Limestone major aquifer outcrops on the hills surrounding the Vale of Pickering and consists of a sequence of limestones and sandstones. The aquifer is unconfined in parts and gains significant quantities of water from the River Rye and River Derwent through swallow holes.

At the downstream end of the River Derwent, Barmby Barrage is located at the confluence with the tidal River Ouse. The purpose of the barrage is to control water quality and levels in the lower River Derwent. The barrage excludes the tidal water from the River Ouse entering the Derwent whilst retaining an adequate level for both navigation, and abstraction at the Loftsome Bridge water treatment works.

The River Derwent, its tributaries and associated wetlands are highly valued for nature conservation, ecology and landscape. The Lower Derwent Valley has Ramsar, Special Area of Conservation (SAC) and Special Protection Area (SPA) status for its conservation importance. There are also several Sites of Special Scientific Interest (SSSIs) throughout the catchment.

The fish populations of the River Derwent and its tributaries are generally of a high quality, reflecting the good water quality and diverse physical habitat. The upper River Derwent and most of its tributaries are dominated by brown trout and grayling. Downstream of Malton salmonids are present in the River Derwent but riverine coarse fish, such as chub, dace, roach and gudgeon dominate. All three British species of lampreys have been recorded in the River Derwent, but sea lamprey are only recorded sporadically and in low numbers.

There are a total of 240 abstraction licences in the assessed part of the Derwent catchment. Public water supply is the dominant use of licensed water in the catchment. There are two major public water supply abstractions at Loftsome Bridge and Elvington to serve the populations of Leeds, Wakefield, Sheffield and Hull as well as smaller towns within the area. A smaller proportion of water is abstracted for spray irrigation, fish farming, industrial and commercial, and domestic and agricultural use.

The number of abstraction licences assessed in the Derwent catchment is now lower than when the CAMS document went out to consultation in October 2005. This is because on 1 April 2005, a significant phase of The Water Act 2003 was implemented, where abstractions of 20m³/day or below were deregulated (no longer required a licence). For the Derwent CAMS area this meant that 155 abstractions no longer needed a licence, as they were below the threshold of 20m³/d. The resource assessment for the Derwent CAMS has been updated to take into account the removal of these licences and has resulted in very little impact on our calculated resource assessment.

3.0

This strategy provides the framework for any decision on an abstraction licence application.

Main principles of abstraction licensing in the Derwent catchment

3.1 National policy

3.1.1 Licence determination

Anyone wanting to take more than 20m³/day from a 'source of supply' (river, stream, lake, well, etc.) must have an abstraction licence. The application process for abstraction is similar to the planning process in that we require the application to be advertised and may require supporting environmental information. When considering each application we check that the quantities applied for and the purpose of the abstraction are reasonable, that there is sufficient water available to support it and that the potential impacts on the environment and other water users are acceptable. Depending on the outcome of our investigations we will issue a licence either as applied for, or with conditions that restrict the abstraction to protect the environment or other users. In certain cases we may have to refuse the application. Any applicant who is not happy with our determination (decision) has the right to appeal against it.

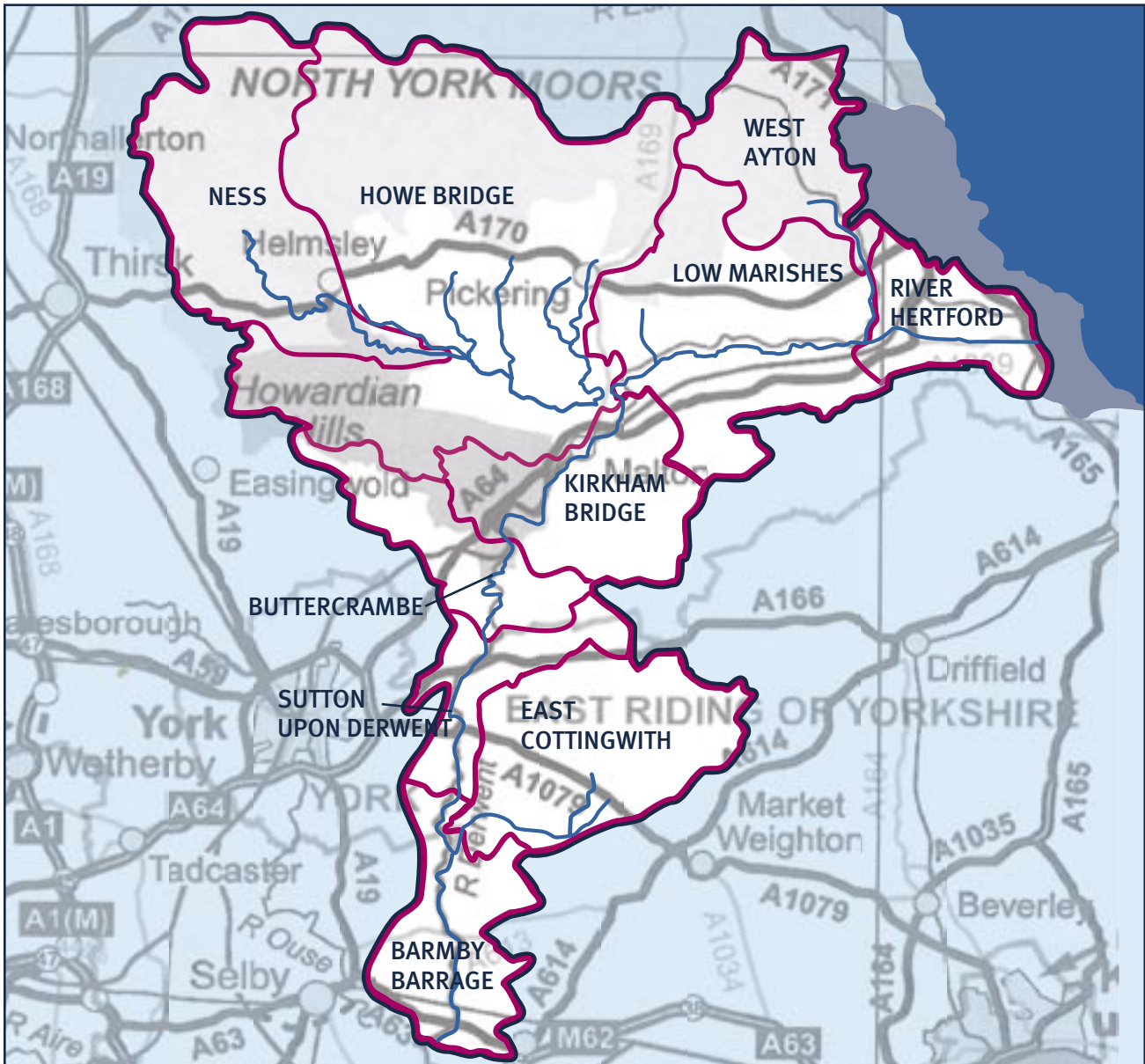
Each application is determined on its own merits






Whilst the strategy that we develop may conclude that water is available to be licensed in the catchment, this does not guarantee that all applications will be successful. Each application will be determined upon its own merits/impacts.

We have split the catchment into areas of water that can be managed as individual units. The Derwent CAMS has ten Water Resource Management Units (WRMUs – these are surface waters). These are shown on Map 2 on page 8.

The groundwater in a catchment can be split into individual Groundwater Management Units (GWMUs – these are areas of water under the ground). However the CAMS process is only able to assess the major aquifers in a catchment as these are the significant groundwater resources. Within the Derwent catchment there are three major aquifers – the Corallian Limestone, the Chalk and the Sherwood Sandstone. The Chalk aquifer will be assessed as part of the Hull and East Riding CAMS and the Sherwood Sandstone aquifer as part of the Aire and Calder CAMS. Therefore abstraction licences within the Sherwood Sandstone and Chalk aquifers have not been assessed in the Derwent CAMS.

Map 2 Water Resource Management Units



Legend	
	Water Resource Management Unit
	Derwent CAMS area
	Sea
	Area not assessed
	Rivers in the Derwent CAMS area

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The Corallian Limestone major aquifer outcrops on the hills surrounding the Vale of Pickering in the Derwent catchment. However, due to the complex interaction between the Corallian Limestone aquifer and the surface water it has not been possible to undertake an accurate groundwater assessment for the aquifer during this first cycle of the Derwent CAMS. As a result, for this cycle of the CAMS, there are no individual GWMUs in the Derwent catchment. A further study on the aquifer is underway to improve our understanding and to enable a separate assessment of the groundwater to be carried out for the next Derwent CAMS cycle in 2010.

Where a proposal for an abstraction has potential to significantly effect the environment we may ask applicants to provide additional information about the likely environmental impact of the proposed abstraction with their applications. To help identify these situations this document contains maps of all the WRMUs with the location of the main environmental features that are potentially vulnerable to abstractions.

This document sets out our licensing strategy for the catchment. If you want to apply for a licence you should contact us on **08708 506506** for further advice and an application pack.

Abstractions are managed to protect the environment

To protect the environment we may issue a licence with conditions. One type of condition is referred to as a 'Hands-Off Flow' (HOF). This specifies that if the flow or level in the river drops below that which is required to protect the environment the abstraction must stop or reduce, hence HOF.

A licence does not guarantee that water is available

It is important to understand that when we issue a licence we do not guarantee the supply of water or quality. We have to protect the environment and rights of other abstractors. To do this we may add constraints to licences, as described above. The licence holder needs to understand the implications of this as it affects the reliability of supply. For example, in drier years it is more likely that conditions will come into effect and abstraction is more likely to be stopped. Details of HOF conditions, which may apply to the Derwent CAMS area, are described in more detail in Section 4.

Water efficiency

We need to make the best use of our existing water resources. Adopting water efficiency measures can help us achieve this goal. Water efficiency is one of the tests that will need to be satisfied before we grant a new licence or renew a time limited licence. We will continue to consult with interested parties on how best to implement water efficiency within the abstraction licensing system.

Approach to time limiting of licences

All new licences and variations (other than downward variations or minor variations having no environmental impact) will have a time limit imposed. CAMS are the mechanism for managing time limits on licences by indicating whether they should be renewed and, if so, on what terms. Where possible, the intention is to have all time limits on licences within a CAMS area expiring on the same date (known as the 'common end date'). However, there may be situations where shorter or longer time limits may be justified. The next common end date for the Derwent CAMS is 31 March 2013. The normal duration for a renewed licence will be 12 years.

We will notify licence holders 18, 12 and six months before the expiry of their licence. If you hold a time limited licence you will then need to apply for a renewal of that licence. There is a presumption that time limited licences will be renewed if:

- environmental sustainability is not in question;
- there is a continued justification of need for the water;
- the water is used efficiently.

We will also take into account any objections received to renewal of the licence. We will endeavour to give six years notice if a licence will not be renewed or is to be renewed on more restrictive terms which impact significantly on the use of that licence. In very exceptional circumstances we may also grant licences for longer than 12 years.

3.1.2 Water rights trading

We want to make it easier to trade water rights. Such trading refers to the transfer of licensable water rights from one party to another. Abstractors may be able to pass on this right to others. More detailed information is available in Section 4 of *Managing Water Abstraction* which can be found in Chapter 7 of the Technical Document on the attached CD.

We sent licence holders a guidance leaflet – *Water Rights Trading* – in 2002. This explained the current opportunities for trading abstraction licences. In 2003 we consulted on more detailed proposals. We have now taken the responses into account and we will publish further information and guidance to coincide with the implementation of the relevant parts of The Water Act 2003. Further information is available on our website at **www.environment-agency.gov.uk**

Table 1 Presence of features that may affect water availability

Feature	Name	WRMU
Water related Sites of Special Scientific Interest (SSSIs)	River Derwent	Barmby Barrage, Sutton upon Derwent, Buttercrambe, Kirkham Bridge
	Derwent Ings	Barmby Barrage, East Cottingwith
	Brighton Meadows, Skipwith Common	Barmby Barrage
	Melbourne and Thornton Ings, Pocklington Canal	East Cottingwith
	Newton Mask	Sutton upon Derwent
	Kirkham Park and Riverside, Jeffrey Bog	Kirkham Bridge
	Ellers Wood and Sand Dale	Low Marishes
	Raincliffe and Forge Valley	West Ayton
	Newtondale, Farndale, The Ings (Amotherby), Cropton Banks and Howlgate Head Woods	Howe Bridge
	Duncombe Park, Ashberry and Reins Woods, Rievaulx Woods, Ryedale Windy Pits	Ness
	North York Moors	West Ayton, Howe Bridge, Ness
Water related Special Areas of Conservation (SACs)	River Derwent	Barmby Barrage, Sutton upon Derwent, Buttercrambe, Kirkham Bridge
	Skipwith Common	Barmby Barrage
	Lower Derwent Valley	Barmby Barrage, East Cottingwith
	Ellers Wood and Sand Dale	Low Marishes
	North York Moors	West Ayton, Howe Bridge, Ness
Water related Special Protection Areas (SPAs)	Lower Derwent Valley	Barmby Barrage, East Cottingwith, Sutton upon Derwent
	North York Moors	West Ayton, Howe Bridge, Ness
Water related Ramsar site	Lower Derwent Valley	Barmby Barrage, East Cottingwith, Sutton upon Derwent

3.1.3 Environmental considerations

Important local features that may affect water availability.

European 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 (SACs), which contribute to biodiversity by maintaining and restoring habitats and species;
- Special Protection Areas (SPAs), which provide protection to birds and their nests, eggs and habitats.

Ramsar sites and Sites of Special Scientific Interest (SSSIs) also carry a high level of environmental importance. Table 1 lists some of the designated sites in this CAMS.

Habitats Regulations

Under the Habitats Regulations¹ we have to assess the effects of existing abstraction licences and any new applications to make sure they are not impacting on the internationally important nature conservation SAC and SPA sites.

¹The conservation (Natural Habitats, &c.) Regulations, 1994, (the Habitats Regulations).

If the impact of your current licence is being reviewed under this legislation you will already have been sent a letter with information about the review. If you have not received a letter from us your licence is either not near a SAC/SPA or cannot have an impact on these sites.

If our assessment shows that a new application could have an impact on a SAC/SPA we will have to follow some strict rules in setting a time limit for that licence. These are:

- we may be able to grant the licence but only with a short time limit. This is so we can monitor the effect of the abstraction on a SAC/SPA and change the licence if necessary;
- if it cannot be determined that your application will not affect the site we have to either put conditions on the licence so that it cannot affect the site or refuse the application. If we grant the licence we may ask you to monitor its impact;
- if our assessment shows that there is not an impact on the site we will manage it in line with this CAMS.

The lower part of the Derwent CAMS area contains Habitats Directive sites. It is possible that any licence in the CAMS area could have an impact on these Habitats Directive sites. As a result all permissions (including abstraction licences) are currently under review. In the event that a licence is found to be damaging, it may be amended or revoked.

The Derwent CAMS area drains to the Humber Estuary which is protected under the Habitats Directive. It is possible that any licence in the catchment could also have an impact on this site. The majority of licences are small relative to flows in the estuary and therefore they are unlikely to be considered as having a significant effect on the integrity of the site and its protected features. However, in the event that a licence is found to be damaging, it may be amended or revoked by 2008.

3.1.4 The Water Act 2003

The Water Act 2003 introduces a new statutory framework for managing water resources that will be implemented into the water resources authorisation system over the next few years. The main changes that are still to be implemented include:

- new controls on previously exempt abstractions for mine and quarry de-watering, trickle and other forms of irrigation, transfers into canals and internal drainage districts;

- stronger powers for water resources planning and management;
- more flexibility to the licensing regulations to improve their efficiency and to encourage water rights trading;
- stronger powers on water conservation.

Under The Water Act 2003 we can revoke a licence that has not been used for four years from 1 April 2004. This gives us more control over our resources and allows us to recover resources in areas where they are scarce.

For more details on The Water Act 2003 and its implementation, see our website,

www.environment-agency.gov.uk or contact your local Environment Agency office on **08708 506506**. The website will be updated to provide information as The Water Act 2003 is implemented.

3.1.5 Exempt purposes and areas

Some abstractions do not need to be licensed, including those that do not exceed 20m³/day. These licences have now been deregulated under The Water Act 2003. Other abstractions are exempt because they take place in a part of the country where a general exemption has been given from the need for abstractions to be licensed. The existence of these 'exempt areas' could prevent the proper management of water resources. We will put forward proposals to remove the 'exempt areas' in England and Wales but this will not affect the Derwent CAMS as there are no exempt areas in the Derwent catchment.

3.1.6 Impoundments

Applications for impoundments will be dealt with on a case-by-case basis.

3.1.7 Management of new licences and renewal of existing licences

We carry out routine inspections and ensure that the conditions on a licence are being followed. There is a presumption that time limited licences and variations will be renewed, subject to such conditions considered as necessary for the proper management of the resource as determined through the CAMS process.

3.2 Catchment water resource availability

If you want to abstract water you need to know what water resources are available within a catchment and where abstraction for consumptive purposes is allowed. To provide this information we have developed a classification system. This gives a 'resource availability status' and indicates:

- the relative balance between the environmental requirements for water and how much is licensed for abstraction;
- whether water is available for further abstraction;
- areas where abstraction needs to be reduced.

Licence applications still have to go through the normal licensing process. More information on this process is in Annexe 2 of *Managing Water Abstraction* on the attached CD.

There are four categories of resource availability status, as shown in Table 2. The desirable strategy for a WRMU would be to move towards a status of no water available. At this status the needs of both abstractors and the environment are balanced with sufficient water available for new abstractions whilst still protecting the ecology.

The resource availability status and target status for each WRMU in the Derwent CAMS area are shown in Table 3 and on Map 3.



Howsham Bridge

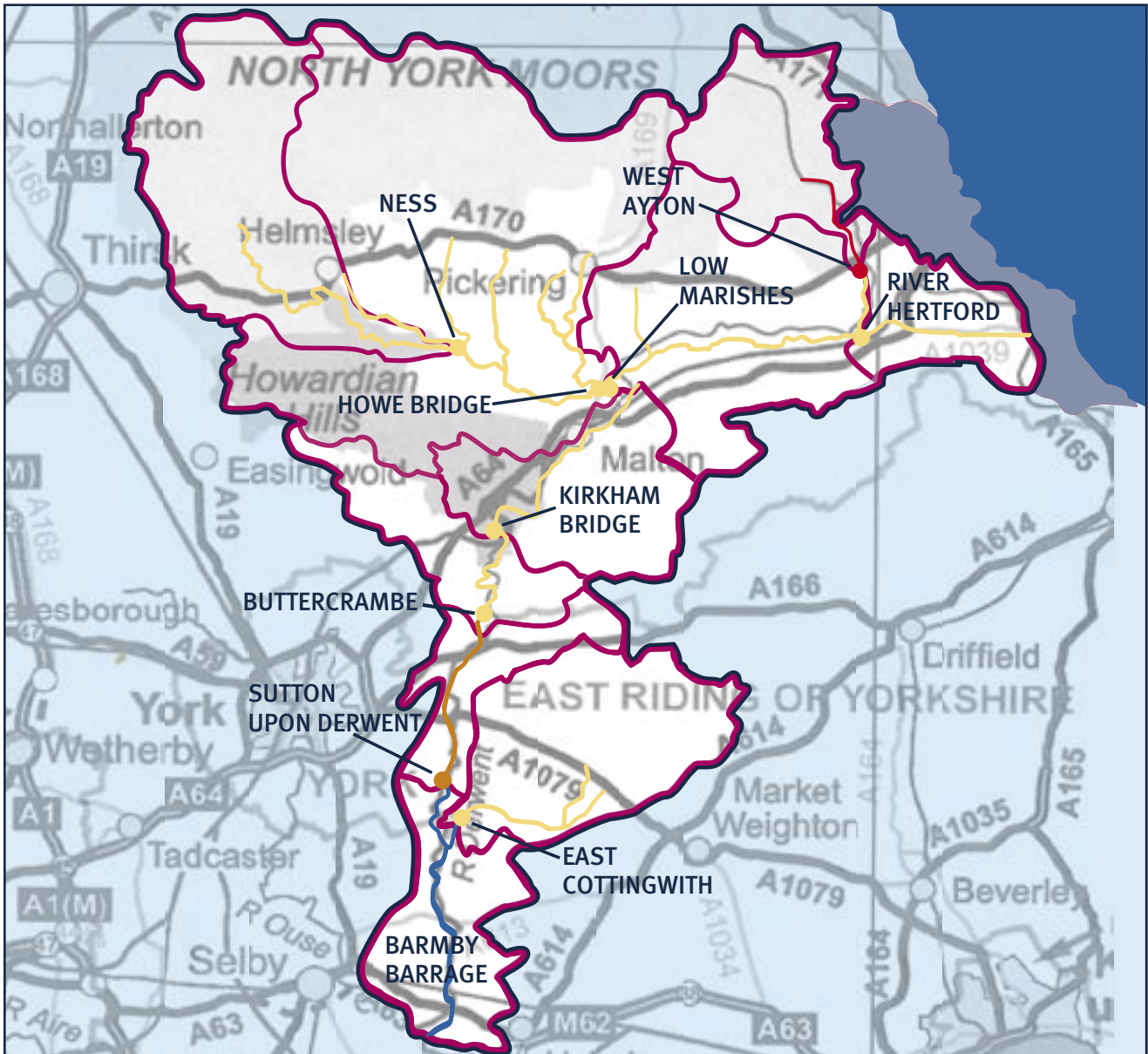
Table 2 Resource availability status categories

Indicative resource availability status	Licence availability
Water available	Water is likely to be available at all flows including low flows. Restrictions may apply.
No water available	No water is available for further licensing at low flows. Water may be available at higher flows, with appropriate restrictions.
Over-licensed	Current actual abstraction is such that no water is available at low flows. If existing licences were used to their full allocation they could cause unacceptable environmental damage at low flows. Water may be available at high flows, with appropriate restrictions.
Over-abstracted	Existing abstraction is causing unacceptable damage to the environment at low flows. Water may still be available at high flows, with appropriate restrictions.

Table 3 Overview of the existing water resource availability and the target water resource availability at low flows for the Derwent CAMS

WRMU name	Associated main river	Resource availability status				Detail of the unit is on page
		Individual WRMU status	Integrated WRMU status	Target status in 2010	Target status in 2016	
Barmby Barrage	Derwent	Not assessed	Not assessed	Not assessed	Not assessed	15
East Cottingwith	Pocklington Canal/ Bielby Beck	No water available	No water available	No water available	No water available	19
Sutton upon Derwent	Derwent	Over-licensed	Over-licensed	Over-licensed	Over-licensed	22
Buttercrambe and Kirkham Bridge	Derwent	Water available	No water available	No water available	No water available	25
Low Marishes	Derwent	No water available	No water available	No water available	No water available	29
River Hertford	Hertford	No water available	No water available	No water available	No water available	32
West Ayton	Derwent	Over-licensed and over-abstracted	Over-licensed and over-abstracted	Over-licensed and over-abstracted	Over-licensed	35
Howe Bridge	Rye	No water available	No water available	No water available	No water available	38
Ness	Rye	No water available	No water available	No water available	No water available	41

Map 3 Integrated resource availability status



Legend	
	No water available
	Over-licensed
	Over-abstracted
	Area not assessed
	Water resource Management Unit
	Derwent CAMS area
	Non-assessed river

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0 5 10 20 Kilometres



4.0

This section describes the licensing strategy and available water resource for each WRMU in the catchment.

Abstraction licensing strategy

It is important to note that this strategy may not apply to licences that return abstracted water back close to the point of abstraction or result in a net benefit to the water environment.

4.1 Barmby Barrage Water Resource Management Unit

Map 4 and Table 4 show the location of sites and features that may affect abstraction licence/ water availability.

Our strategy

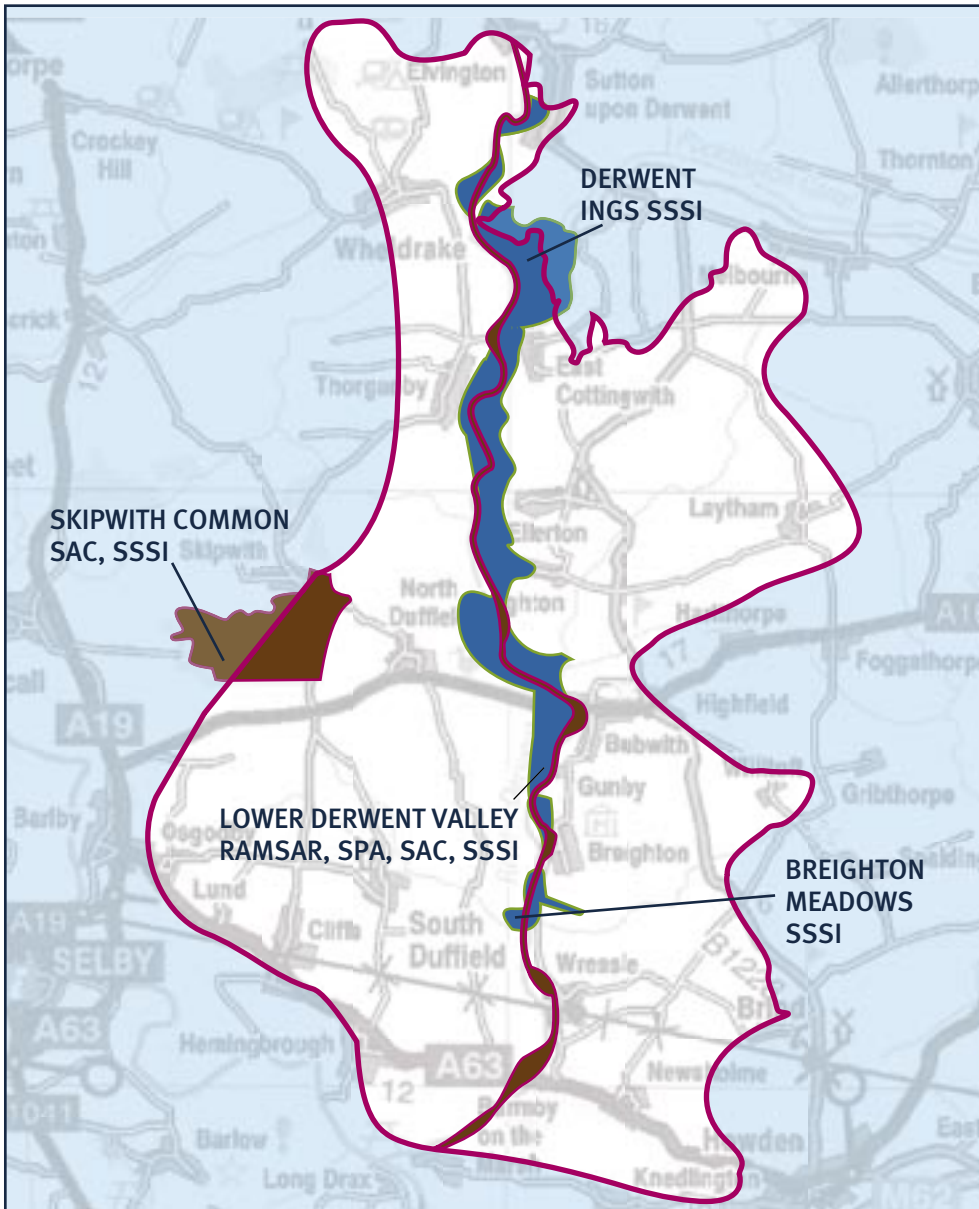
The Barmby Barrage WRMU has not been assessed in this CAMS using the Resource Assessment and Management (RAM) Framework. The barrage (pictured) disrupts the natural flow pattern of the lower Derwent and creates conditions that cannot be assessed using the CAMS methodology.

Barmby Barrage was constructed in the 1970s to prevent tidal water from the River Ouse entering the River Derwent. It is operated to maintain water quality suitable to abstract for public water supply and to maintain depths for navigation. The relative water levels on the upstream and downstream sides of the barrage control its opening and closing. The tidal cycle means the barrage is closed for several hours a day. At times of low flows the barrage can remain closed for extended periods. While the barrage is closed no flow passes from the River Derwent into the River Ouse.





River Derwent and River Ouse at Barmby Barrage

Map 4 Barmby Barrage WRMU



0 1 2 4 Kilometres



Legend	
	Water related Ramsar and SPA
	Water related SAC
	Water Resource Management Unit

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The RAM Framework is dependent on single flows, so cannot properly assess the cessation of flow the barrage periodically creates in this lower part of the catchment. Without the barrage the tidal flows would still create conditions that we cannot assess using the RAM Framework.

However, the lower Derwent catchment, incorporating the Barmby Barrage WRMU, has been extensively studied through the Lower Derwent Project. The project started in 1997 and has helped us develop an understanding of the ecological and water processes in the valley. In particular it assessed the impact of abstraction on the bankside designated features and some in river ecological indicators. The results of the Lower Derwent Project have been used to assess this WRMU.

The Lower Derwent Project considered environmental factors similar to those of the CAMS river flow objectives. The project's results suggested that at the time of the modelling, abstraction had little or no adverse impact on the river's ecological indicators. Uncertainty remains regarding some Habitats Directive listed species and

the potential impacts on the Humber Estuary. This uncertainty means we have adopted a precautionary approach in developing a licensing strategy for this WRMU. We will only allow new licences with constraints and may revoke any licences which have not been used for four years, without compensation under The Water Act 2003, unless reasonable need to retain the licence can be demonstrated.

The Sutton upon Derwent WRMU is upstream of the Barmby Barrage WRMU and has been assessed as over-licensed. As the Barmby Barrage WRMU cannot be assessed using the RAM Framework we have assumed the over licensed status of the upstream unit could impact on the Barmby Barrage WRMU. Therefore applying the precautionary principle in the licensing strategy for the Barmby Barrage WRMU will help to protect flows and designated sites in the WRMU and reduce the risk of damage occurring to the environment. As the Lower Derwent Project model does not provide information on the quantity of water available for new licences, each application will need to be individually assessed.

Important local features that may affect water availability

Table 4 Presence of features that may affect water availability

Feature	Comment
Water related Sites of Special Scientific Interest (SSSIs)	River Derwent Skipwith Common Brighton Meadows Derwent Ings
Water related Special Areas of Conservation (SACs)	River Derwent Lower Derwent Valley Skipwith Common
Water related Special Protection Area (SPA)	Lower Derwent Valley
Water related Ramsar site	Lower Derwent Valley
Additional local features	Lower Derwent Valley National Nature Reserve (NNR)

Strategy for new and existing licences

The strategy for this WRMU is to stay at existing levels of licensing at low flows, allowing no additional unconstrained abstraction. This means that for **new** licences:

- we will continue to determine them on a case-by-case basis, subject to the normal determination criteria, and consider the impact on the Barmby Barrage WRMU;
- consumptive licences may be available with constraints and non-consumptive licences without constraints;
- all applications will be reviewed to assess their impact under the Habitats Regulations;
- where the assessment determines no impact on Habitats Directive sites, they will be time limited to a common end date of 31 March 2013;
- they may be subject to Hands-Off Levels (HOLs) associated with the requirements of navigation;
- they will only be available if they are consistent with the management objectives of the designated sites.

and for **existing** licences:

- they will be reviewed to assess their impact under the Habitats Regulations;
- there will be a presumption of renewal, subject to other renewal criteria and local considerations;
- on renewal, abstractors will be encouraged to voluntarily reduce their licensed quantities;
- if a licence has not been used for four years (since 1 April 2004) then it may be revoked, without compensation under The Water Act 2003, unless reasonable need to retain the licence can be demonstrated.

How much water is available and what restrictions might apply

The Barmby Barrage WRMU has been modelled through the Lower Derwent Project and is therefore not assessed in the same way as other WRMUs in the Derwent CAMS area. As a result, a resource availability status has not been assigned to the Barmby Barrage WRMU. Licences will be determined on an individual basis and will only be issued with suitable conditions that do not derogate existing abstractors nor affect the designated features of the Lower Derwent Valley. For more information, please refer to the Derwent CAMS Technical Document on the attached CD.

For up to date information please contact us or look at the annual update of this information on our website at www.environment-agency.gov.uk/cams

Additional local information specific to this WRMU

The Barmby Barrage WRMU has been assessed through the Lower Derwent Project.



Pocklington Canal

4.2 East Cottingwith Water Resource Management Unit

Map 5 and Table 7 show the location of sites and features that may affect abstraction licence/water availability. Table 5 shows the existing and the target low flow resource availability status for the WRMU.

Our strategy

The water resource availability status of this WRMU is no water available at low flows. The target status for this WRMU in 2010 is no water available.

The target status is the outcome of the sustainability appraisal process. If you want more information about the sustainability appraisal process and how we came to this decision please refer to Chapter 3 of the Technical Document on the attached CD.

Strategy for new and existing licences

The strategy for this WRMU is to stay at no water available. This means that for **new** licences:

- we will continue to determine applications on a case-by-case basis, subject to the normal determination criteria, and consider the impact on the East Cottingwith WRMU;
- consumptive licences may be available with constraints and non-consumptive licences without constraints;
- new constrained licences will have a HOF condition local to the East Cottingwith WRMU;
- water will only be available during periods of higher flow. To make your supply more reliable, you could apply for a licence to fill a winter storage reservoir; all applications will be reviewed to assess their impact under the Habitats Regulations;
- where the assessment determines no impact on Habitats Directive sites, they will be time limited to a common end date of 31 March 2013.

and for **existing** licences:

- they will be reviewed to assess their impact under the Habitats Regulations;
- there is a presumption of renewal, subject to other renewal criteria and local considerations;
- on renewal, abstractors will be encouraged to voluntarily reduce their licensed quantities.

How much water is available and what restrictions might apply

Table 6 gives an indication of how much water is available for further abstraction and the associated restrictions that may apply to **new or varied** abstraction licences from the main river. Tributaries to the main river may be subject to different restrictions and quantities. We will be able to advise you on this.

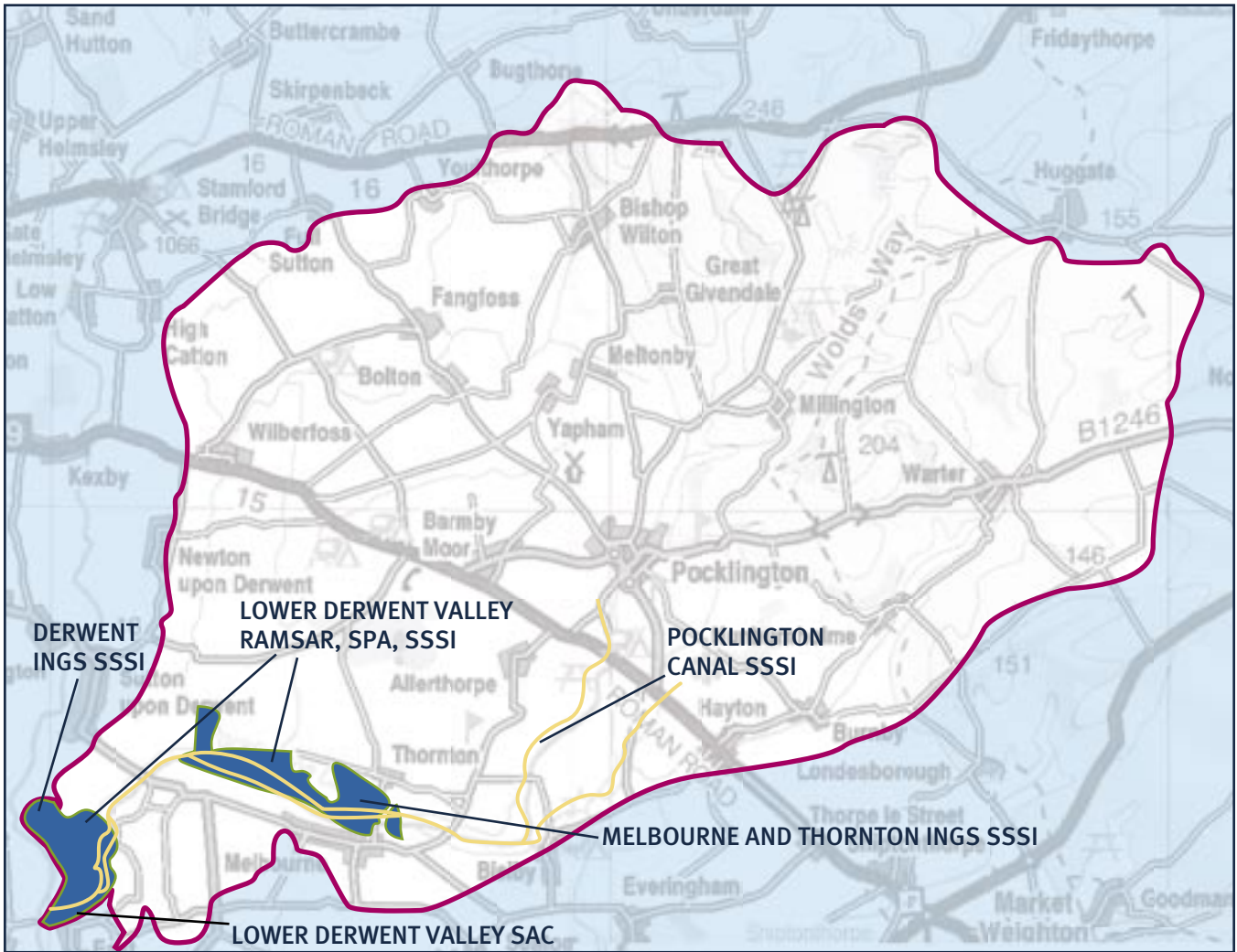
All abstraction licence applications will be subject to an assessment to take account of any local issues and be granted on a first come, first served basis.

The quantities shown in Table 6 are accurate at the time this document was published and apply to the main river. For up to date information please contact us or look at the annual update of this information on our website at www.environment-agency.gov.uk/cams

Additional local information specific to this WRMU

There are no gauging stations close to the Assessment Point (AP) with suitable flow records to derive flows in the East Cottingwith WRMU. Therefore river flows for this WRMU were obtained from the Lower Derwent Project model. These figures were used in the resource assessment.

Map 5 East Cottingwith WRMU



Legend

	No water available		Water Resource Management Unit
	Water related Ramsar and SPA/SAC		

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Table 5 Existing low flow resource availability status and target low flow resource availability status for the East Cottingwith WRMU

Associated main river	Resource availability status				Comment
	Individual WRMU status	Integrated WRMU status	Target status in 2010	Target status in 2016	
Pocklington Canal/ Bielby Beck	No water available	No water available	No water available	No water available	New licences may be available, but only at periods of high flow and licences may have constraints.

Table 6 How much water is available and the number of days you can abstract it (in an average year)

Restriction/condition on abstraction	Amount of water available in ML/d	Number of days abstraction allowed (average year)	Explanation
Unconstrained abstraction	0		There is no unconstrained water available.
HOF 1 will be applied to new licences			
HOF 1 = 11.5ML/d	3.8	346	We will consider new abstractions totalling 3.8ML/d with a HOF of 11.5ML/d. With this condition you could abstract water for most of the year, except during times of very low flow.
Once the HOF1 water has been licensed the HOF2 will be applied to new licences			
HOF 2 = 19.1ML/d	7.6	310	We will consider new abstractions totalling 7.6ML/d with a HOF of 19.1ML/d. With this condition you could still abstract water for the majority of the year, except during lower flows.
Once the HOF2 water has been licensed the HOF3 will be applied to new licences			
HOF 3 = 34.4ML/d	13.4	233	We will consider new abstractions totalling 13.4ML/d with a HOF of 34.4ML/d. With this condition you could abstract water during times of medium to high flows.

Important local features that may affect water availability

Table 7 Presence of features that may affect water availability

Feature	Comment
Water related Sites of Special Scientific Interest (SSSIs)	Derwent Ings Melbourne and Thornton Ings Pocklington Canal
Water related Special Area of Conservation (SAC)	Lower Derwent Valley
Water related Special Protection Area (SPA)	Lower Derwent Valley
Water related Ramsar site	Lower Derwent Valley
Additional local features	Lower Derwent Valley NNR

4.3 Sutton upon Derwent Water Resource Management Unit

Map 6 and Table 10 show the sites and features that may affect abstraction licence/water availability.

Our strategy

The water resource availability status of this WRMU is over-licensed at low flows. The target status for this WRMU in 2010 is over-licensed.

Our preferred option through the sustainability appraisal process is to allow only additional non-consumptive and constrained licences. We may also revoke any licences which have not been used for four years, without compensation under The Water Act 2003, unless reasonable need to retain the licence can be demonstrated. Any reduction in licensed volume will not be enough to change the resource availability status to no water available but will reduce the over-licensed status. This will protect the current low flow status and help to reduce the risk of damage occurring to the environment. This aspect will be further assessed under the Habitats Regulations Review of Consents for the Humber Estuary in relation to sea and river lamprey access.

The target status is the outcome of the sustainability appraisal process. Our sustainability appraisal concluded that the status should remain at over-licensed to protect the needs of existing licence holders. There is not sufficient water available elsewhere in the catchment or in adjacent catchments to provide alternative resources for the existing licence holders. Where possible, we will reduce existing licence quantities but it is not economical to move to no water available. If you want more information about the sustainability appraisal process and how we came to this decision please refer to Chapter 3 of the Technical Document on the attached CD.

The Sutton upon Derwent WRMU is the most downstream assessed unit on the main River Derwent and is therefore referred to in this document as the 'critical' downstream WRMU. In order to protect the resource status of this unit, upstream WRMUs will have a 'critical HOF condition' from the Sutton upon Derwent WRMU.

Strategy for new and existing licences

The strategy for this WRMU is to stay at over-licensed.

This means that for **new** licences:

- we will continue to determine them on a case-by-case basis, subject to the normal determination criteria, and consider the impact on the Sutton upon Derwent WRMU;
- consumptive licences may be available with constraints and non-consumptive licences without constraints;
- constrained licences will have a HOF condition local to the Sutton upon Derwent WRMU;
- water will only be available during periods of higher flow. To make your supply more reliable, you could apply for a licence to fill a winter storage reservoir;
- all applications will be reviewed to assess their impact under the Habitats Regulations;
- where the assessment determines no impact on Habitats Directive sites, they will be time limited to a common end date of 31 March 2013.

and for **existing** licences:

- they will be reviewed to assess their impact under the Habitats Regulations;
- there will be a presumption of renewal, subject to other renewal criteria and local considerations;
- on renewal, abstractors will be encouraged to voluntarily reduce their licensed quantities;
- if a licence has not been used for four years (since 1 April 2004) then it may be revoked, without compensation under The Water Act 2003, unless reasonable need to retain the licence can be demonstrated.

How much water is available and what restrictions might apply

Table 9 gives an indication of how much water is available for further abstraction and the associated restrictions that may apply to **new or varied** abstraction licences from the main river. Tributaries to the main river may be subject to different restrictions and quantities. We will be able to advise you on this.

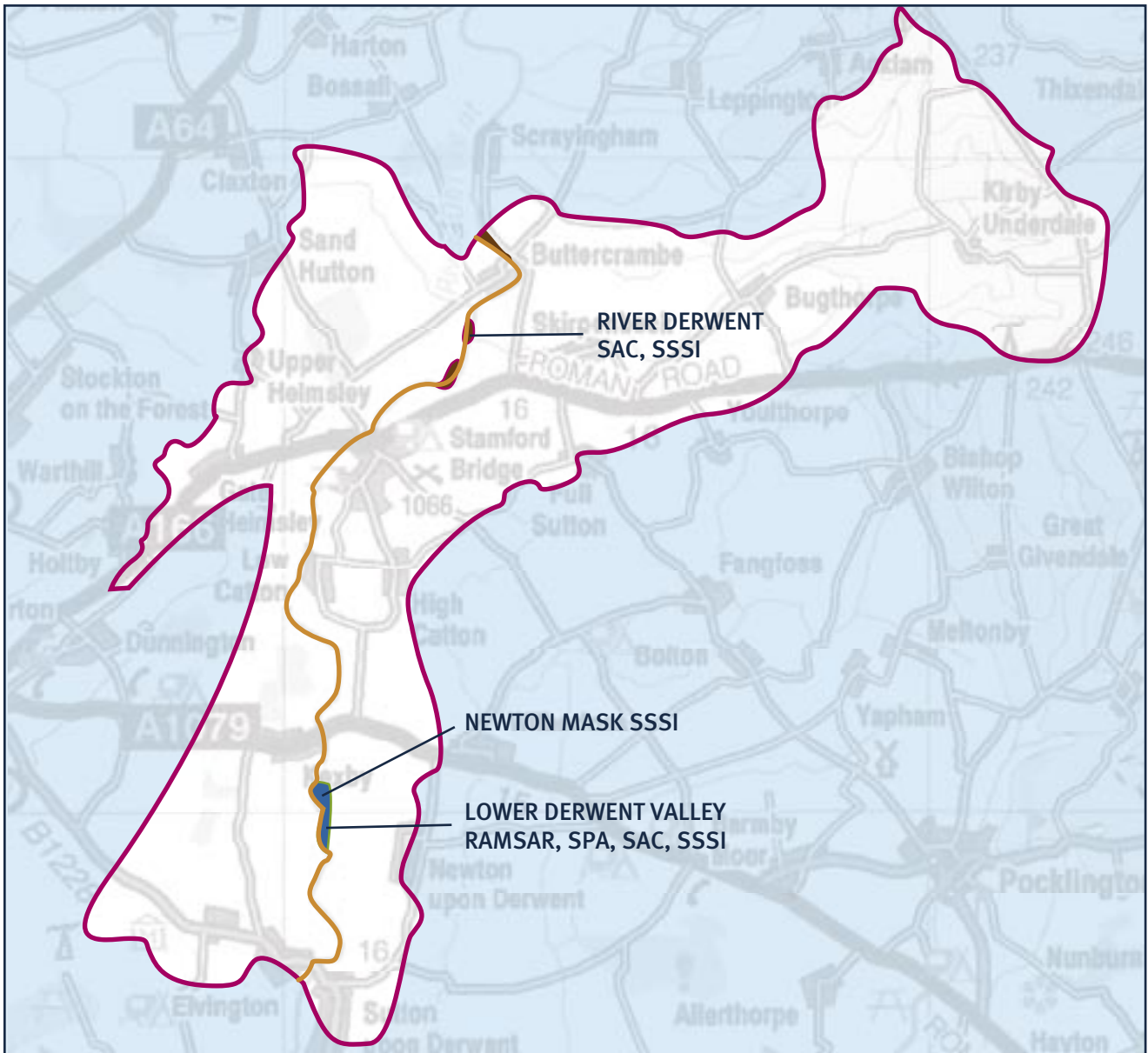
All abstraction licence applications will be subject to an assessment to take account of any local issues and be granted on a first-come-first-served basis.

The quantities shown in Table 9 are accurate at the time this document was published and apply to the main river. For up to date information please contact us or look at the annual update of this information on our website at www.environment-agency.gov.uk/cams

Additional local information specific to this WRMU

There are no gauging stations in the Sutton upon Derwent WRMU. Therefore river flows for this WRMU were obtained from the Lower Derwent Project model.

Map 6 Sutton upon Derwent WRMU



Legend

 Over-licensed	 Water Resource Management Unit
 Water related Ramsar and SPA	
 Water related SAC	

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Table 8 Existing low flow resource availability status and target low flow resource availability status for the Sutton upon Derwent WRMU

Associated main river	Resource availability status				Comment
	Individual WRMU status	Integrated WRMU status	Target status in 2010	Target status in 2016	
River Derwent	Over-licensed	Over-licensed	Over-licensed	Over-licensed	We may revoke licenses that have not been used for four years. However, new licences with constraints may be available.

Table 9 How much water is available and the number of days you can abstract it (in an average year)

Restriction/condition on abstraction	Amount of water available in ML/d	Number of days abstraction allowed (average year)	Explanation
Unconstrained abstraction	0		There is no unconstrained water available.
HOF 1 = 362.8ML/d	0		There is no water available with this constraint.
HOF2 will be applied to new licences			
HOF 2 = 503.1ML/d	200.1	237	We will consider new abstractions totalling 200.1ML/d with a HOF of 503.1ML/d. With this condition you could still abstract water for the majority of the year, except during lower flows.
Once the HOF2 water has been licensed the HOF3 will be applied to new licences			
HOF 3 = 853.7ML/d	420.7	171	We will consider new abstractions totalling 420.7ML/d with a HOF of 853.7ML/d. With this condition you could abstract water during times of medium to high flows.

Important local features that may affect water availability

Table 10 Presence of features that may affect water availability

Feature	Comment
Water related Sites of Special Scientific Interest (SSSIs)	River Derwent Newton Mask
Water related Special Areas of Conservation (SACs)	Lower Derwent Valley River Derwent
Water related Special Protection Area (SPA)	Lower Derwent Valley
Water related Ramsar site	Lower Derwent Valley
Additional local features	Lower Derwent Valley NNR

4.4 Buttercrambe and Kirkham Bridge Water Resource Management Units

The Buttercrambe and Kirkham Bridge WRMUs have been assessed together as they are similar in physical and ecological characteristics and have the same resource availability status.

Map 7 and Table 13 show the location of sites and features that may affect abstraction licence/water availability. Table 11 shows the existing and the target low flow resource availability status for the WRMUs.

Our strategy

The water resource availability status of the Buttercrambe and Kirkham Bridge WRMUs is water available at low flows.

The Buttercrambe and Kirkham Bridge WRMUs drain into the Sutton upon Derwent WRMU. This means that the flow in the Sutton upon Derwent WRMU depends on flow from the Buttercrambe and Kirkham Bridge WRMUs. We must maintain the flow in the Buttercrambe and Kirkham Bridge WRMUs to prevent deterioration of flow into the Sutton upon Derwent WRMU. Therefore we have overridden the resource availability status for the Buttercrambe and Kirkham Bridge WRMUs to no water available, in order to protect the downstream critical reach at Sutton upon Derwent.

The target status for both WRMUs is therefore no water available. The target status is the outcome of the sustainability appraisal process. If you want more information about the sustainability appraisal process and how we came to this decision please refer to Chapter 3 of the Technical Document on the attached CD.

Strategy for new and existing licences

The strategy for the WRMUs is to stay at the overridden status of no water available. This means that for **new** licences:

- we will continue to determine them on a case-by-case basis, subject to the normal determination criteria, and consider the impact on the Buttercrambe or Kirkham Bridge WRMUs and also on the downstream critical Sutton upon Derwent WRMU;
- consumptive licences may be available with constraints and non-consumptive licences without constraints;
- constrained licences will have a HOF condition local to the Buttercrambe or Kirkham Bridge WRMUs and also a critical HOF condition from the Sutton

upon Derwent WRMU. The downstream critical HOF means that conditions on the licence could be more restrictive in order to protect the downstream reaches of the river from the effects of abstraction;

- water will only be available during periods of higher flow. To make your supply more reliable, you could apply for a licence to fill a winter storage reservoir;
- all applications will be reviewed to assess their impact under the Habitats Regulations;
- where the assessment determines no impact on Habitats Directive sites, they will be time limited to a common end date of 31 March 2013.

and for **existing** licences:

- they will be reviewed to assess their impact under the Habitats Regulations;
- there will be a presumption of renewal, subject to other renewal criteria and local considerations;
- on renewal, abstractors will be encouraged to voluntarily reduce their licensed quantities.

How much water is available and what restrictions might apply

Table 12 gives an indication of how much water is available for further abstraction and the associated restrictions that may apply to **new or varied** abstraction licences from the main river. New constrained abstractions within these WRMUs will also have a downstream critical HOF, applied from the Sutton upon Derwent WRMU, as shown in Table 12. Tributaries to the main river may be subject to different restrictions and quantities. We will be able to advise you on this.

All abstraction licence applications will be subject to an assessment to take account of any local issues and be granted on a first come, first served basis.

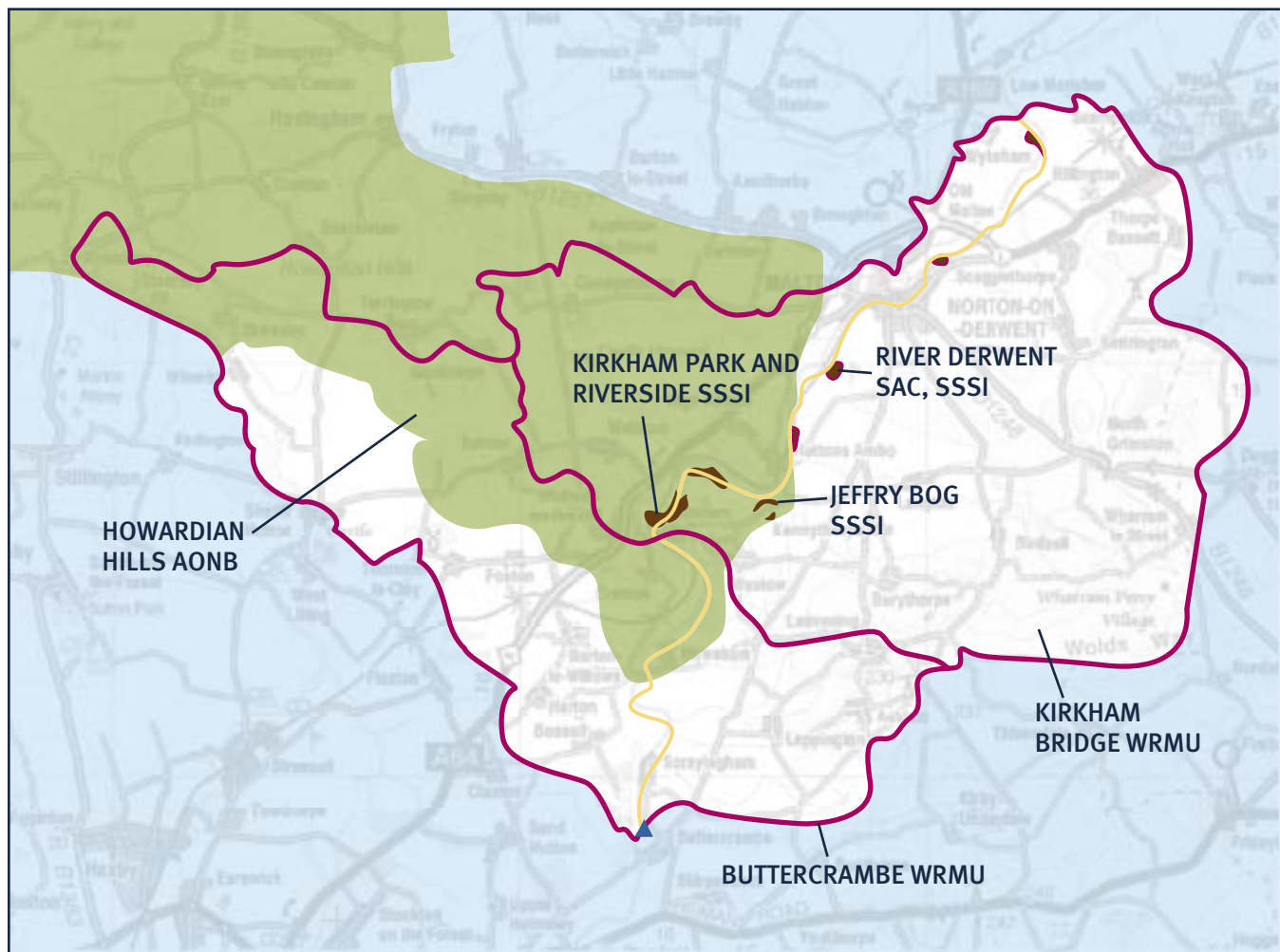
The quantities shown in Table 12 are accurate at the time this document was published and apply to the main river. For up to date information please contact us or look at the annual update of this information on our website at www.environment-agency.gov.uk/cams

Additional local information specific to the WRMUs

The gauging station used to set the HOFs in the Buttercrambe WRMU is Buttercrambe, as shown on Map 7 on page 26.

There are no gauging stations in the Kirkham Bridge WRMU which measure river flows. The monitoring instrumentation in this WRMU measures river level only. Therefore river flows for the Kirkham Bridge WRMU were obtained from the Lower Derwent Project model.

Map 7 Buttercrambe and Kirkham Bridge WRMUs



Legend

- No water available
- Water related SAC
- Water related SSSI
- ▲ Gauging station
- Area of Outstanding Natural Beauty
- ▭ Water Resource Management Unit

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0 2 4 8 Kilometres



Table 11 Existing low flow resource availability status and target low flow resource availability status for the Buttercrambe and Kirkham Bridge WRMUs

Associated main river	Individual WRMU status	Resource availability status			Comment
		Integrated WRMU status	Target status in 2010	Target status in 2016	
River Derwent	Water available	No water available	No water available	No water available	New licences may be available, but only at periods of higher flow and licences may have constraints.

Table 12 How much water is available and the number of days you can abstract (in an average year)

Restriction/condition on abstraction	Amount of water available in ML/d	Number of days abstraction allowed (average year)	Explanation
Downstream critical HOF = 503.1ML/d	200.1	237	We will consider new abstractions totalling 200.1ML/d with a HOF of 503.1ML/d. The HOF will be measured at Buttercrambe gauging station. This is to protect the river flows in the Sutton upon Derwent WRMU.
A local condition will also be applied to manage the local flows. These are outlined below			
Buttercrambe WRMU			
Unconstrained abstraction	0	0	There is no unconstrained water available.
Once the unconstrained water has been licensed the HOF1 will be applied to new licences			
HOF 1 = 359.5ML/d	67.4	332	We will consider new abstractions totalling 67.4ML/d with a HOF of 359.5ML/d. With this condition you could abstract water for most of the year, except during times of very low flow.
Once the HOF1 water has been licensed the HOF2 will be applied to new licences			
HOF 2 = 494.5ML/d	135	292	We will consider new abstractions totalling 135ML/d with a HOF of 494.5ML/d. With this condition you could still abstract water for the majority of the year, except during lower flows.
Once the HOF2 water has been licensed the HOF3 will be applied to new licences			
HOF 3 = 764.5ML/d	236.2	222	We will consider new abstractions totalling 236.2ML/d with a HOF of 764.5ML/d. With this condition you could abstract water during times of medium to high flows.
Kirkham Bridge WRMU			
Unconstrained abstraction	0	0	There is no unconstrained water available
Once the unconstrained water has been licensed the HOF1 will be applied to new licences			
HOF 1 = 353.6ML/d	89.6	332	We will consider new abstractions totalling 89.6ML/d with a HOF of 353.6ML/d. With this condition you could abstract water for most of the year, except during times of very low flow.
Once the HOF1 water has been licensed the HOF2 will be applied to new licences			
HOF 2 = 475.3ML/d	228	288	We will consider new abstractions totalling 228ML/d with a HOF of 475.3ML/d. With this condition you could still abstract water for the majority of the year, except during lower flows.
Once the HOF2 water has been licensed the HOF3 will be applied to new licences			
HOF 3 = 779.3ML/d	364.8	204	We will consider new abstractions totalling 364.8ML/d with a HOF of 779.3ML/d. With this condition you could abstract water during times of medium to high flows.

Important local features that may affect water availability

Table 13 Presence of features that may affect water availability

Feature	Comment
Water related Sites of Special Scientific Interest (SSSIs)	River Derwent Kirkham Park and Riverside Jeffry Bog
Water related Special Area of Conservation (SAC)	River Derwent
Additional local features	Howardian Hills Area of Outstanding Natural Beauty (AONB)



River Derwent near Kirkham Priory