



Essex abstraction licensing strategy

A strategy to manage water resources sustainably

227_10_SD01 version 7

8 May 2017

We are the Environment Agency. We protect and improve the environment.

Acting to reduce the impacts of a changing climate on people and wildlife is at the heart of everything we do.

We reduce the risks to people, properties and businesses from flooding and coastal erosion.

We protect and improve the quality of water, making sure there is enough for people, businesses, agriculture and the environment. Our work helps to ensure people can enjoy the water environment through angling and navigation.

We look after land quality, promote sustainable land management and help protect and enhance wildlife habitats. And we work closely with businesses to help them comply with environmental regulations.

We can't do this alone. We work with government, local councils, businesses, civil society groups and communities to make our environment a better place for people and wildlife.

Published by:

Environment Agency
Horizon House, Deanery Road,
Bristol BS1 5AH
Email: enquiries@environment-agency.gov.uk
www.gov.uk/environment-agency

© Environment Agency 2017

All rights reserved. This document may be reproduced with prior permission of the Environment Agency.

Further copies of this report are available from our publications catalogue: www.gov.uk/government/publications

or our National Customer Contact Centre: T: 03708 506506

Email: enquiries@environment-agency.gov.uk.

Contents

Contents	3
1. About the licensing strategy	4
2. Water resource availability of the Essex Abstraction Licensing Strategy	4
2.1. Resource availability	4
2.2. Resource reliability	15
2.3. Other considerations for availability and reliability	17
2.4. Impoundments	17
3. How we manage abstraction in the Essex Abstraction Licensing Strategy	17
3.1. Assessment points	17
3.2. Groundwater	19
3.3. Coasts and estuaries	19
3.4. Heavily modified water bodies	20
3.5. Protected areas	20
4. Managing existing licences	21
4.1. Water rights trading	21
4.2. Taking action on unsustainable abstraction	21
4.3. Regulating currently exempt abstraction	23
5. List of abbreviations	24
6 Glossary	25

1. About the licensing strategy

This strategy sets out our approach to managing new and existing abstraction and impoundment within the Essex catchment in the Anglian river basin district.

The Essex catchment covers an area of 2920 km2 including the surface water catchments of the Rivers Stour, Colne, Pant/Blackwater and Chelmer to the north and the Crouch, Asheldham Brook and the Roach to the south. These catchments drain the areas of Sudbury, Colchester, Braintree, Chelmsford, Billericay and Wickford, the Dengie Peninsula and Rochford into the North Sea. The catchments lie mainly in Essex, though the Stour catchment straddles the border between Essex and Suffolk.

The entire coastline from the Thames Estuary round to West Mersea is a Habitats Directive designated site, as are Hamford Water and the Stour Estuary further north.

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 <u>managing water abstraction</u> on GOV.UK for the technical explanation, legal and policy requirements behind the Abstraction Licensing Strategy (ALS).

Please see the <u>abstraction pages</u> on GOV.UK for advice on who needs an abstraction or impoundment licence, and how to apply.

2. Water resource availability of the Essex ALS

2.1. Resource availability

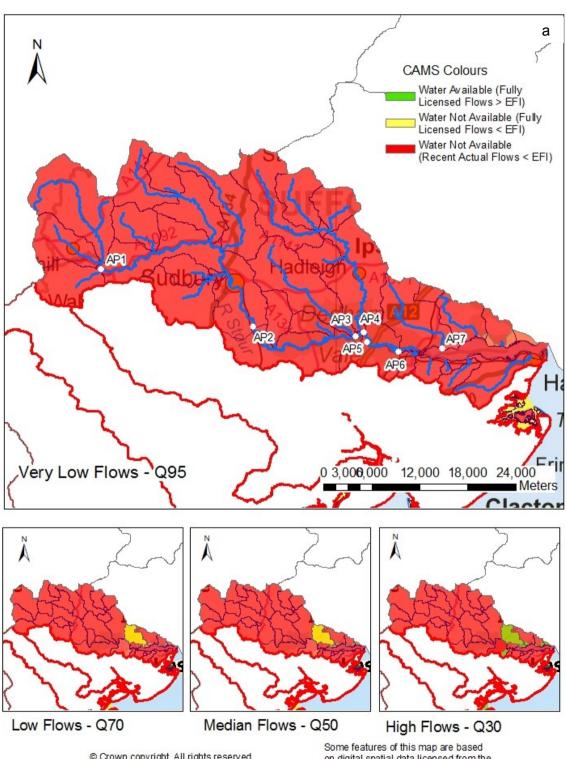
The water resource availability, calculated at four different flows, Q95 (lowest), Q70, Q50, and Q30 (highest) for this ALS are presented and explained in map 1a-f and table 1 below.

Licence renewals will continue to be considered with regard to environmental sustainability, justification of need, and efficient use of water. We must ensure that the licensing of abstraction is sustainable and won't cause deterioration in the ecology of our rivers, wetlands and estuaries or deplete groundwater resources. Section 4.2 contains more information on how our approach to renewing time limited licences will manage the risk of deterioration.

Maps 1a-1f. Water resource availability colours at Q30, Q50, Q750 and Q95 in the Essex Abstraction Licensing Strategy.

Essex CAMS -Stour System Downstream Colours

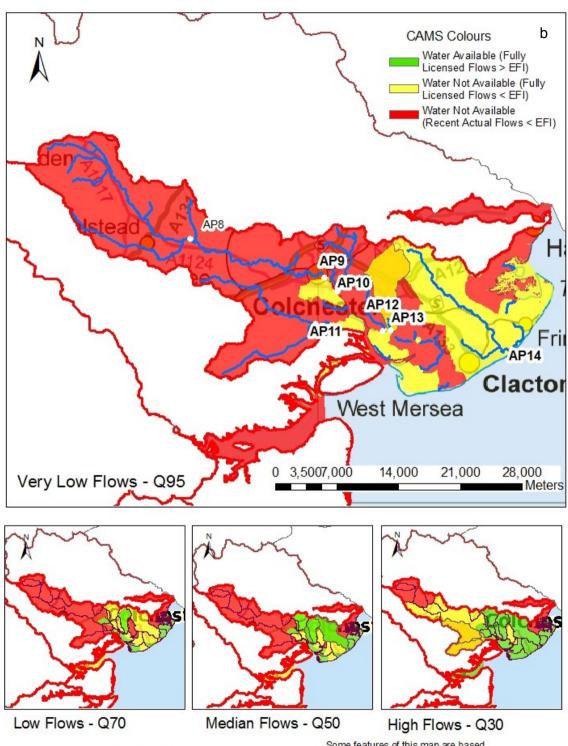




© Crown copyright. All rights reserved. Environment Agency 100026380, 2011.

Essex CAMS -Colne & Tendring System Downstream Colours

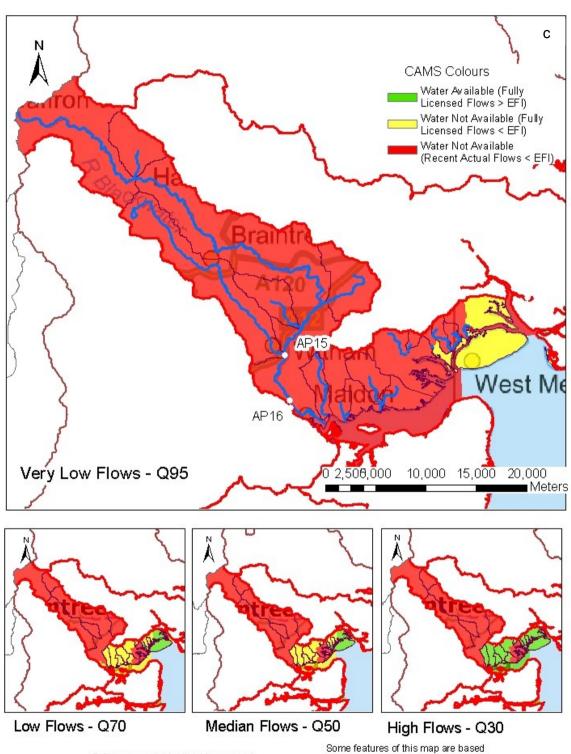




© Crown copyright. All rights reserved. Environment Agency 100026380. 2011.

Essex CAMS - Blackwater System Downstream Colours

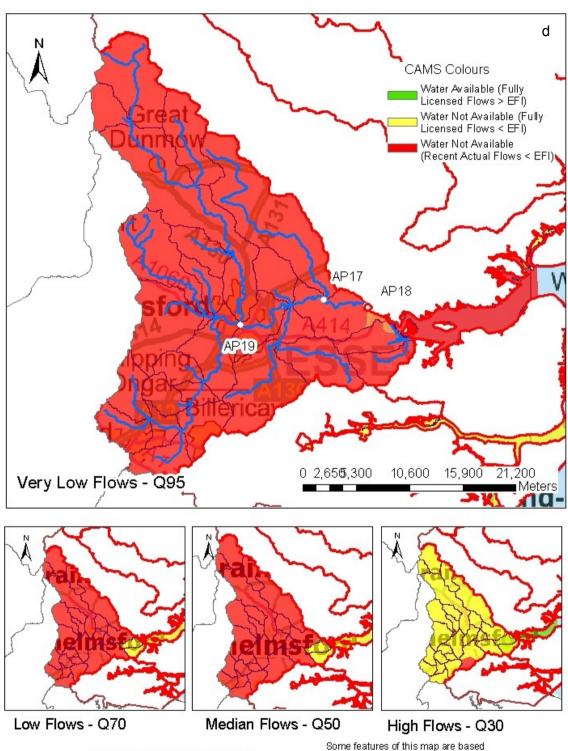




© Crown copyright. All rights reserved. Environment Agency 100026380, 2011.

Essex CAMS - Chelmer System Downstream Colours

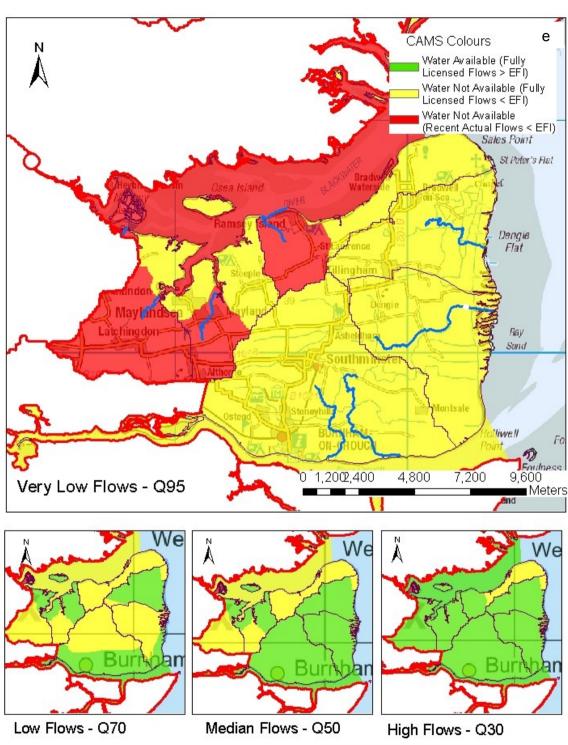




© Crown copyright. All rights reserved. Environment Agency 100026380, 2011.

Essex CAMS - Dengie System Downstream Colours

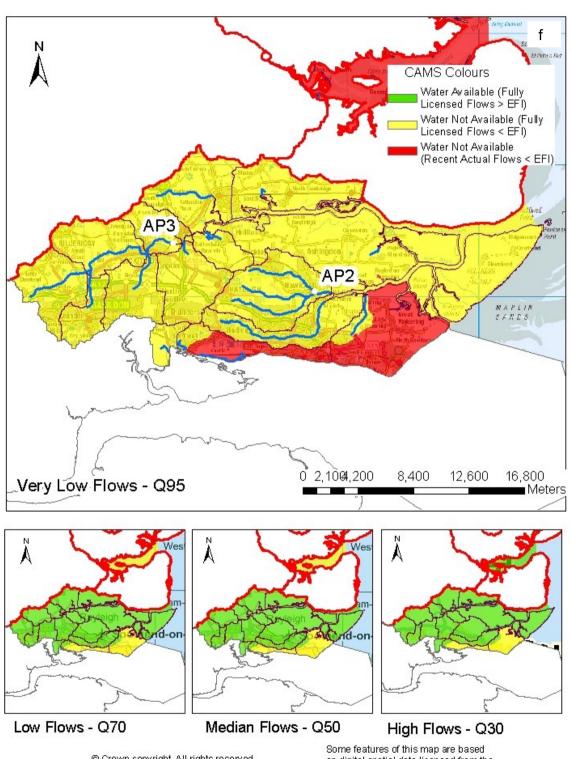




© Crown copyright. All rights reserved. Environment Agency 100026380, 2011.

Essex CAMS - Crouch and Roach System Downstream Colours





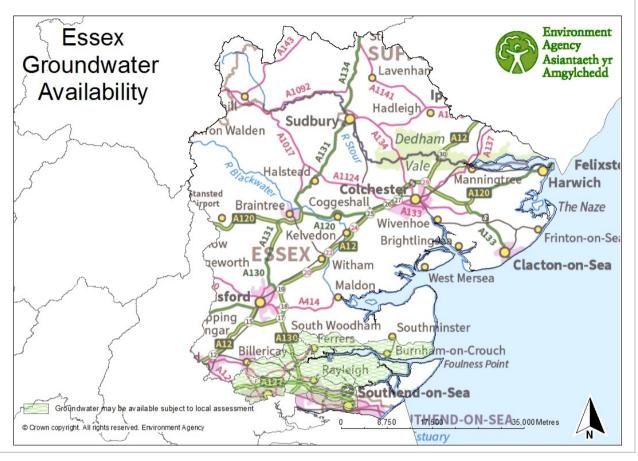
© Crown copyright. All rights reserved. Environment Agency 100026380, 2011.

Table 1. Water resource availability colours and their implications for licensing.

Water resource availability colour	Implication for licensing
Water available	There is more water than required to meet the needs of the environment.
for licensing	New licences can be considered depending on local and downstream impacts. Some time limited licence renewals may require changes to reflect historic annual usage in order to manage the risk of deterioration to the environment.
	Abstractions for non-consumptive uses can still be permissible in catchments where there are sustainability issues.
Restricted water	Full Licensed flows fall below the Environment Flow Indicators (EFIs).
available for licensing	If all licensed water is abstracted there will not be enough water left for the needs of the environment. No new consumptive licences would be granted. Some time limited licence renewals may require changes to reflect historic annual usage in order to manage the risk of deterioration to the environment. It may also be appropriate to investigate the possibilities for reducing fully licensed risks. Water may be available if you can 'buy' (known as licence trading) the entitlement to abstract water from an existing licence holder.
	Abstractions for non-consumptive uses can still be permissible in catchments where there are sustainability issues.
Water not	Recent actual flows are below the EFI.
available for licensing	This scenario highlights water bodies where flows are below the indicative flow requirement to help support Good Ecological Status/Potential (GES/P) (as required by the Water Framework Directive).
	Note: we are currently taking action in water bodies that are not supporting GES / GEP). No further consumptive licences will be granted. Some time limited licence renewals may require changes to reflect historic annual usage in order to manage the risk of deterioration to the environment. Water may be available if you can buy (known as licence trading) the amount equivalent to recently abstracted from an existing licence holder.
	Abstractions for non-consumptive uses can still be permissible in catchments where there are sustainability issues.
HMWBs (and /or discharge rich water bodies)	These water bodies have a modified flow that is influenced by reservoir compensation releases or they have flows that are augmented by a support scheme or large water recycling centre. 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. More detail if applicable can be found in section 4.2.1 Surface Water
	Some time limited licence renewals may require changes to reflect historic annual usage in order to manage the risk of deterioration to the environment.
	There may be water available for abstraction in discharge rich catchments, you need to contact the Environment Agency to find out more.
	Abstractions for non-consumptive uses can still be permissible in catchments where there are sustainability issues.

Water availability for unconfined groundwater in the Essex abstraction licensing strategy is influenced by the surface water status at Q95.

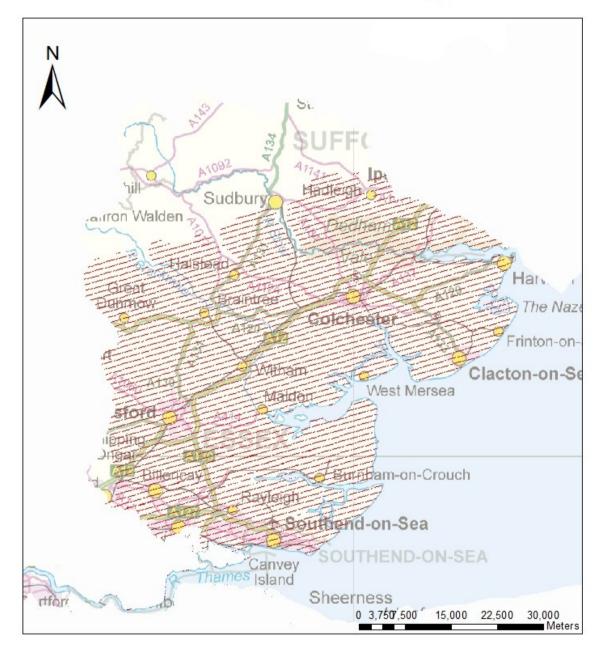
Table 1a explains the groundwater resource availability colours, and Map 1g and 1h show these colours for groundwater in Essex area.



Map 1g Shallow Groundwater availability in Essex.

Essex confined chalk aquifer





Legend

Area of confined chalk aquifer

© Crown copyright. All rights reserved. Environment Agency 100026380. 2011.

Some features of this map are based on digital spatial data licensed from the Centre for Ecology and Hydrology, © CEH.

Map 1h Confined Chalk Groundwater availability in Essex. - No Water Available

Table 1a. Groundwater resource availability colours and their implications for licensing.

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

2.2. Resource reliability

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

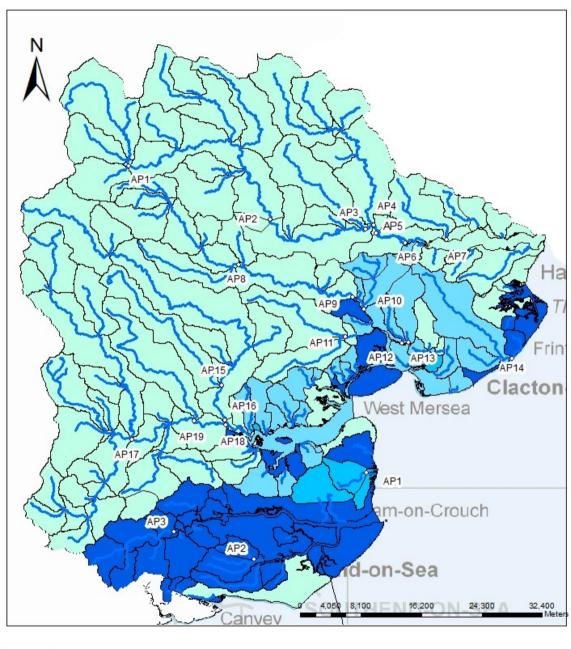
By assessing the quantity of water available at different flows it's possible to see when there is a surplus or deficit of water and the associated reliability of an abstraction. This is an indication only; actual reliability of a licence will be discussed when you apply.

Table 2 shows the resource availability colour associated with the percentage reliability of consumptive abstraction. Map 2 gives an indication of the resource availability in Essex area expressed as a percentage of time.

Table 2. Percentage reliability of consumptive abstraction.

Resource	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.
	Not assessed

Catchment Area Resource Reliability Percentage of the Time Environment Agency





Map 2 Water resource reliability expressed as percentage of time available.

2.3. Other considerations for availability and reliability

When we grant a licence, it doesn't mean that we guarantee a supply of water. Because we have to protect the environment and the rights of other abstractors, we may have to add constraints to licences such as 'hands off flow' (HoF) conditions. 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 2028 and the subsequent one is 31 March 2040.

2.4. Impoundments

Applications for impoundments will be dealt with on a case by case basis. More information may be found on our web site.

3. How we manage abstraction in the Essex ALS

3.1. 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.

Where groundwater abstractions directly impact on surface water flows, the impact is measured at the surface water AP

Table 3 gives an indication of how much water is available for further abstraction and the associated restrictions we may have to apply to new and varied abstraction licences from the main river. Tributaries to the main river may be subject to different restrictions and quantities and will be assessed locally on a case by case basis.

Each HoF is linked to an AP and is dependent on the 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 and may be subject to further restrictions.

Reading from top to bottom in Table 3 are the APs in the Essex ALS area. Reading across the columns you can see the potential HoF that may be applied to a licence, the number of days water may be available under this restriction and the approximate volume of water in Ml/d that may be available etcetera.

 $\label{thm:continuous} \textbf{Table 3. Summary of licensing approach for the assessment points of Essex\,Abstraction\,Licensing\,Strategy.}$

AP	Name	Water Resource Availability Colour	HOF Restriction (MI/d)	Number of days per annum abstraction may be	Approximate volume available at restriction (MI/d)	Is there a gauging station at this AP?
				available		
1	River Stour at Wixoe	Red	116 (Q21)	77	102	No
2	River Stour d/s of conf with Belchamp Bk	Red	333 (Q21)	77	103	Yes, at Lamarsh
3	River Box at confluence with Stour	Red	28 (Q21)	77	22	Yes, at Polstead
4	River Brett at confluence with Stour	Red	121 (Q21)	77	90	Yes, at Higham
5	River Stour at Stratford u/s of PWS abs	Red	411 (Q21)	77	103	No
6	River Stour at Cattawade northern channel	Red	315 (Q21)	77	103	No
7	Stutton Brook (aka Dodnash Brook)	Red	9 (Q33)	120	1.3	Yes, at Brantham
8	River Colne/Bourn Brook	Red	63 (Q27)	99	51	Yes, at Earls Colne
9	River Colne	Red	86 (Q27)	99	51	Yes, at Lexden
10	Salary Brook	Red	4.4 (Q71)	329	0.4	No
11	Roman River/Layer Brook	Red	25.7 (Q31)	113	1.4	No
12	Sixpenny Brook	Red	1.7 (Q51)	186	0.3	No
13	Tenpenny Brook	Yellow	2.0 (Q95)	347	0.48	No
14	Holland Brook	Yellow	12.9 (Q54)	197	2.9	Yes, at Thorpe Le Soaken

15	River Brain at confluence with Blackwater	Red	48.1 (Q21)	77	15.2	Yes, at Guithavon Valley
16	Pant/Blackwater at Langford Mill GS	Red	112.5 (Q21)	77	15.2	Yes, at Langford
17	River Ter at confluence with Chelmer	Red	272 (Q31)	139	6.0	Yes, at Crabbs bridge
18	River Chelmer	Red	258 (Q31)	139	19.3	Yes, at Springfield
19	Rivers Wid/Can	Red	95.3 (Q31)	139	19.3	Yes, at Beaches Mill
1	Asheldham	Yellow	2.3 (Q54)	197	0.8	No
2	Fluvial Roach	Yellow	1.6 (Q95)	347	0.38	No
3	Fluvial Crouch	Yellow	4.7 (Q95)	347	0.58	Yes, at Wickford

3.2. Groundwater

The confined chalk groundwater in the Essex area is fully committed and no further consumptive abstraction can be considered.

In areas where there is unconfined chalk, or other, shallower aquifers in continuity with surface water, the groundwater status is linked to the surface water status. Practically, this means that there are certain areas where the impact of a groundwater abstraction on the Q95 flow in the local river may be considered acceptable. These areas are marked green on map 1g.

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) conditions. The HoL is a groundwater level below which an abstractor is required to reduce or stop abstraction.

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

3.3. Coasts and estuaries

There are many waterbodies around the Essex coast which have complex needs in terms of freshwater flows. Many of these are part of or support Habitats Directive sites. Abstractions in these waterbodies will be decided on a case-by-case basis.

3.4. Heavily modified water bodies

A large proportion of watercourses within the catchment have been classified under the Water Framework Directive as Heavily modified water bodies (HMWBs) due to the presence of flow control structures such as sluices and gauges. You can find more information in our <u>River Basin Management Plan</u>.

Several of the rivers are designated as HMWBs due to the presence of river support schemes. The Rivers Stour and Blackwater are supported by the Ely Ouse to Essex transfer Scheme (EOETS). The Colne has the capability to be supported by groundwater although this is rarely done.

The Ely Ouse to Essex Transfer Scheme (EOETS):

The EOETS was developed to augment flows in Essex rivers for subsequent transfer into public water supply reservoirs. It comprises two main elements, a transfer of surface water to Essex and the provision of groundwater to supplement the transfers via the Great Ouse Groundwater Scheme (GOGS).

GOGS was developed with the EOETS to pump water into the Little Ouse and Thet Rivers for transfer into the Cut Off Channel and subsequently to Essex. It was developed to provide water at times of low flow when there is insufficient water in the Ely Ouse to meet the demands of water users and the environment in Essex, particularly in drought years.

Under EOETS water is diverted at Denver from the Ely Ouse River into the Cut Off Channel and subsequently pumped through a series of pipelines into the River Stour, and then part of the flow is transferred on to the River Blackwater. The transfer is run entirely for the use of Essex public water supply and is controlled by the need to fill Hanningfield and Abberton reservoirs. The transfer at Denver is limited by a minimum flow requirement to the Tidal Ouse. The support scheme is not available for abstraction other than by the relevant water company.

3.5. Protected areas

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 (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

Ramsar sites and Sites of Special Scientific Interest (SSSI) also carry a high level of environmental importance.

There are many SAC, SPA, SSSI and Ramsar sites in Essex, mostly around the coasts and estuaries. If your proposal falls within or is relevant to one of these areas, it will be dealt with on a case-by-case basis. If the protected area requires a more stringent level of protection than the EFI suggests, the specific requirements of the protected site will over-ride the EFI.

4. Managing existing licences

4.1. Water rights trading

We want to make it easier to trade water rights. 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 or to downstream water bodies. The table below provides a guide to the potential for trading in water bodies of a particular ALS water resource availability colour, as shown on map 1a-f.

Table 6. Water resource availability colours and their implications for trading.

ALS water resource availability colour	Our approach to trading
Water available for licensing	Allow trades of recent actual abstraction and licensed abstraction, but little demand for trading expected within water body as water available for new abstractions.
Restricted water available for licensing	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 where we are taking action to prevent deterioration unless the trade is consistent with achieving water body objectives.
Water not available for licensing	We will only trade recent actual abstraction but no increase in recent actual abstraction is permitted in water body. Licensed abstraction will be recovered for the environment.
HMWBs	Opportunities for trading will depend on local operating agreements and local management.

To find out more about licence trading please go to our website.

4.2. Taking action on unsustainable abstraction

Action to tackle unsustainable abstraction in the Essex Abstraction Licensing Strategy area on surface water bodies where flow does not support good ecological status, (or potential if the water body is heavily modified) and on managing the risk of deterioration or correct instances of serious damage include:

Actions under the water industry national environment programme

Revocations of licences for non-use

Reductions of under-used and unused licences

Changes to time limited licenses as detailed in the paragraphs below:

Abstraction licence renewals

During the renewal process we will take into account the current licence conditions, for example, whether there is a Hands off Flow (HoF) condition protecting low flows, and past licence use when

deciding if changes are required. A HoF specifies that if the flow in the river drops below that which is required to protect the environment, abstraction must stop until flows recover.

We will aim to issue renewed licences to our Abstraction Licensing Strategies, (previously known as Catchment Abstraction Management Strategies - CAMS) common end date where:

all the sustainability issues in the catchment are resolved and; renewal of time-limited licences does not pose a risk of deterioration in ecological status and; the quantities are justified and; the water is used efficiently.

A shorter time limit may be required where there are residual risks to the sustainability of catchments.

Our approach will depend on whether it is a surface water or a groundwater time-limited licence.

Surface water licences

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

As a minimum, all surface water licences will need a HoF to protect the ecological needs of a river at low flows. Low flows are defined as the Q95, which is the amount of flow in a river that is exceeded 95% of the time. To calculate the amount of water required to support the ecology of a river we use a tool called the Environmental Flow Indicator (EFI).

Subject to having a HoF condition that protects low flows, where there are no other sustainability issues in the surface water bodies influenced by the abstraction, the quantities are justified and the applicant has demonstrated that the water is being used efficiently, then the application would be renewed on same terms to the relevant ALS common end date.

In surface water bodies where a low flow HoF doesn't help to resolve all of the sustainability issues in the catchment, renewed licences will be time-limited to 31 March 2024. Further changes may be needed after 2024 to protect the ecology at higher flows.

Alternative management arrangements may be needed for some locally specific catchments. For example, in level controlled areas, a Hands off Level may be applied upon renewal.

Groundwater licences

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

We will consider renewing the licence at the same quantities when the aquifer, 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.

If there is a risk that the ecology could be adversely affected at fully licensed rates of abstraction, then we will cap the licence at the historic maximum uptake to reduce the risk of ecological deterioration from the 2015 RBMP baseline. The standard period for assessing the historic maximum rate of an abstraction will be the 10 years prior to 2015 (2005 - 2015). The period for spray irrigation purposes will be the years 2000-2015, to better reflect the annual differences in climate and cropping patterns.

If both the groundwater and/or surface water bodies are already subject to unsustainable rates of abstraction, we will need to renew the licence with measures to help restore that waterbody/groundwater body to a sustainable level of abstraction. These measures could be licence reductions or 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 time-limited to 31 March 2024. Further licence changes may be required after 2024.

If you wish to discuss the renewal of your current licence then please contact your local Environment Agency office.

4.3. Regulating currently exempt abstraction

As the abstraction licensing system in England and Wales developed over the past 50 years, certain abstractions have remained lawfully exempt from licensing control. This means that unlimited supplies of water can be abstracted, even in areas that are water stressed.

Defra, the Welsh Government, the Environment Agency and Natural Resources Wales have consulted jointly on an intended approach to remove most exemptions from abstraction licensing and to bring these abstractions under licensing control (New Authorisations).

A light-touch, risk based approach is proposed to bring the majority of exempt abstractors into the licensing system to help balance the needs of all abstractors and the environment. This will enable more effective water management by ensuring that all significant activities influencing the availability of water and its impact on the environment are undertaken in a sustainable way. Defra propose to begin bringing New Authorisations into the licensing system in 2016. Some abstractions that are considered low risk will remain exempt.

The main activities that will be impacted by the changes include:

- transferring water from one inland water system to another by a navigation, harbour or conservancy authority;
- · abstraction of water into internal drainage districts;
- · dewatering mines, quarries and engineering works;
- warping;
- 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;
- · geographically exempt areas; and
- the majority of abstractions covered by Crown and visiting forces exemptions.

Defra are still developing their policies to resolve some of the issues raised during the consultation process. They will publish their proposals before new regulations are implemented and expect to do this at least 3 months before commencement so that we can issue guidance to those affected by the changes.

Where we have details of these abstractions, we've included them in our assessments to consider how they impact on the catchment.

5. List of abbreviations

ALS	Abstraction Licensing Strategy
AP	Assessment Point
CED	Common End Date
Defra	Department of Environment Fisheries 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
Q95	The flow of a river which is exceeded on average for 95% of the time.
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 either directly or indirectly to the source of supply after use. For example for the use of spray irrigation.
Discharge	The release of substances (i.e. water, sewage, etc.) 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.
Hands off level	A river flow or borehole (groundwater) level below which an abstractor is required to reduce or stop abstraction.
Impoundment	An impoundment is 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 at which assessments are completed for WFD.

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

Then call us on

03708 506 506 (Monday to Friday, 8am to 6pm)

email

enquiries@environment-agency.gov.uk

or visit our website

www.gov.uk/environment-agency

incident hotline 0800 807060 (24 hours) floodline 0345 988 1188 (24 hours)

Find out about call charges (www.gov.uk/call-charges)



Environment first: Are you viewing this on screen? Please consider the environment and only print if absolutely necessary. If you are reading a paper copy, please don't forget to reuse and recycle if possible.