

Steeping, Great Eau & Long Eau Abstraction Licensing Strategy

A strategy to manage water resources sustainably March 2020 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 <u>Defra</u> 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.

Published by:

Environment Agency Horizon House, Deanery Road, Bristol BS1 5AH

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1. About the licensing strategy

This strategy sets out our approach to managing new and existing <u>abstraction</u> and <u>impoundment</u> within the Steeping, Great Eau & Long Eau <u>catchment</u> in the Anglian river basin district. The Steeping, Great Eau and Long Eau Abstraction Licensing Strategy (ALS) area covers an area of approximately 670 km², and is bounded by the Grimsby, Ancholme and Louth ALS area to the north, the Witham ALS area to the west, and the North Sea to the east.

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 <u>water body</u> in which the abstraction is located. It also applies to all downstream <u>surface water</u> bodies that may be affected by any reduction in abstraction-related flow, or adjacent <u>groundwater</u> bodies affected by any reduction in groundwater level.

Please see <u>Managing Water Abstraction</u> for the technical explanation, legal and policy requirements behind the Abstraction Licensing Strategy (<u>ALS</u>).

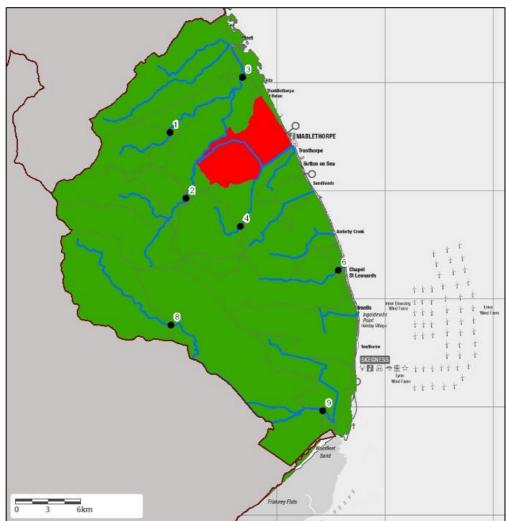
Please see <u>abstraction pages on gov.uk</u> for advice on who needs an abstraction or impoundment licence, and how to apply.

2. Water resource availability of the Steeping, Great Eau & Long Eau 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 Maps1-4 and section 2.1.1 below.

Map 1: Water resource availability colours at Q30 for Steeping, Great Eau & Long Eau ALS.



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Legend:



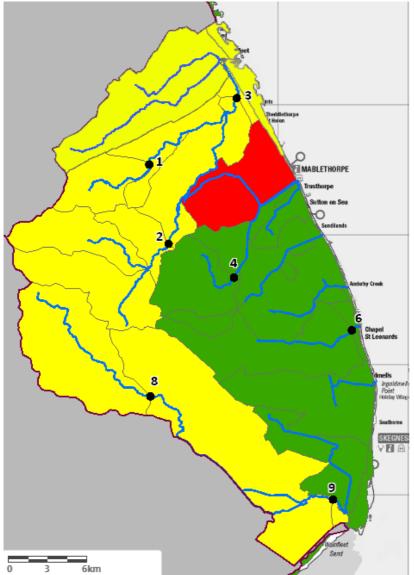
- Assessment Points
- Heavily Modified and Artificial Rivers
- Heavily Modified Artificial lakes
- Rivers

Water Availability at Q30:



- Water available
- Restricted water available
- Water not available

Map 2: Water resource availability colours at Q50 for Steeping, Great Eau & Long Eau ALS.



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Legend:



- Assessment Points
- Heavily Modified and Artificial Rivers



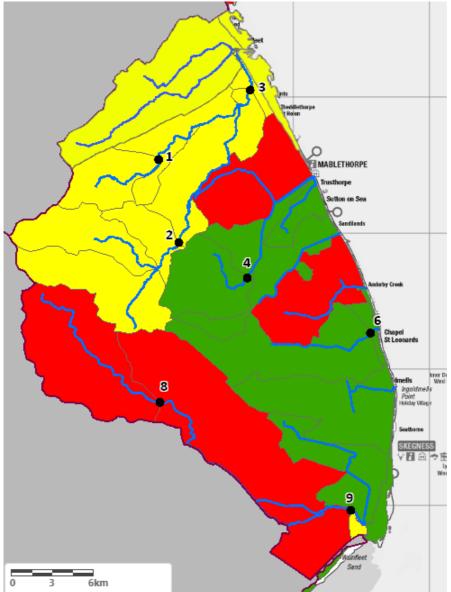
Rivers

Water Availability at Q50:



- Water available
- Restricted water available
- Water not available

Map 3: Water resource availability colours at Q70 for Steeping, Great Eau & Long Eau ALS.



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Legend:

- Assessment Points
- Heavily Modified and Artificial Rivers



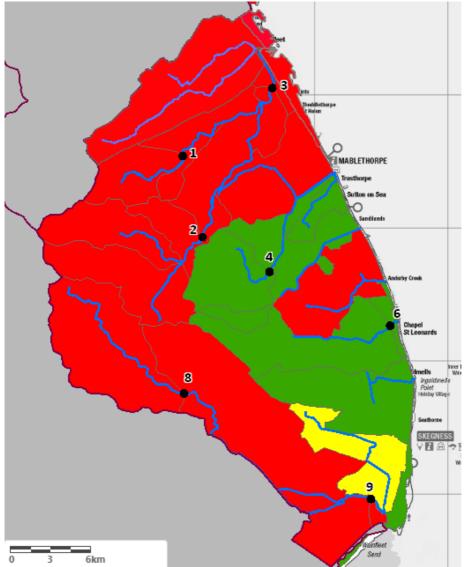
Rivers

Water Availability at Q70:

- - Restricted water available
 - Water not available

Water available

Map 4: Water resource availability colours at Q95 for Steeping, Great Eau & Long Eau ALS.



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Legend:



Assessment Points

- Heavily Modified and Artificial Rivers
- Heavily Modified Artificial lakes

Rivers

Water Availability at Q95:



- Water available
- Restricted water available
- Water not available

2.1.1. 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.

New licences can be considered depending on local and downstream impacts.

Restricted water available for licensing

Yellow

Full Licensed flows fall below the Environmental Flow Indicators EFIs.

If all licensed water is abstracted there will not be enough water left for the needs of the environment. No new consumptive licences would be granted. It 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.

Water not available for licensing

Red

Recent actual flows are below the EFI.

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' (<u>GES</u>) or 'Good Ecological Potential' (<u>GEP</u>) where a water body is heavily modified for reasons other than water resources.

Note: 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) the amount equivalent to recently abstracted from an existing licence holder.

Heavily Modified Water Bodies (<u>HMWB</u>s) and/or <u>discharge</u>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 the Environment Agency to find out more.

2.2. Groundwater resource availability

Section 2.2.1 explains the groundwater resource availability colours, and Map 5 shows these colours for groundwater in the Steeping, Great Eau & Long Eau area.

Map 5: Groundwater resource availability colours for Steeping, Great Eau & Long Eau ALS.



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2.2.1. Groundwater resource availability colours and implications for licensing

Water available for licensing

Green

Groundwater unit balance shows groundwater available for licensing. New licences can be considered depending on impacts on other abstractors and on surface water.

Restricted water available for licensing

Yellow

Groundwater unit balance shows more water is licensed than the amount available, but that recent actual abstractions are lower than the amount available OR that there are known local impacts likely to occur on dependent wetlands, groundwater levels or cause saline intrusions but with management options in place.

In restricted groundwater units no new consumptive licences will be granted. It may also be appropriate to investigate the possibilities for reducing fully licensed risks. Water may be available if you can 'buy' (known as licence trading) the entitlement to abstract water from an existing licence holder.

In other units there may be restrictions in some areas e.g. in relation to saline intrusion

Water not available for licensing

Red

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

We will not grant further consumptive licences. Non-consumptive licences will be considered on a case-by-case basis.

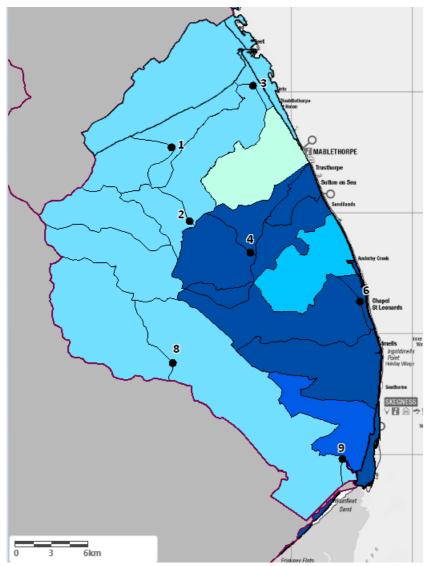
2.3. Resource reliability

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 gives an indication of the surface water resource availability for <u>consumptive</u> <u>abstraction</u> in the Steeping, Great Eau & Long Eau area expressed as a percentage of time.

Map 6: Water resource reliability of the Steeping, Great Eau & Long Eau ALS expressed as percentage of time available.



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Legend:



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) or 'hands off level' (HoL) 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 (<u>CED</u>), 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.

2.5. Impoundments

Applications for impoundments will be dealt with on a case by case basis. More information may be found on our <u>water management web pages on gov.uk</u>.

3. How we manage abstraction in the Steeping, Great Eau & Long Eau ALS

3.1. Assessment points

We assess surface water flows at <u>Assessment points</u> (<u>AP</u>s), 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 1 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 <u>abstraction licences</u> 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, where there is a more critical resource availability downstream, additional restrictions may apply to protect the ecological requirements of the river. This is detailed in the last column of Table 1 if applicable.

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 1 are the APs in the Steeping, Great Eau & Long Eau 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 $\underline{MI/d}$ that may be available. In cases where there is water available at all flows we may apply a Minimum Residual Flow (MRF) to protect very low flows. We'll decide this on a case by case basis.

AP	Name	Water Resource Availability	HOF Restriction (MI/d)	Number of days per annum abstraction may be available	Approximate volume available at restriction (MI/d)	Is there a gauging station at this AP?	Additional restrictions
1	Little Carlton (Long Eau)	Restricted water available for licensing	12.2	160	5.6	Yes	
2	Claythorpe (Great Eau)	Restricted water available for licensing	47	160	9.4	Yes	
3	Cloves Bridge (Great Eau)	Restricted water available for licensing	52.6	160	9.4	No	Additional LDE restrictions - see section 3.3
4	Bilsby (Woldgrift Drain)	Water available for licensing	2.1	365	1.3	Yes	MRF
6	Chapel St Leonards (Willoughby High Drain)	Water available for licensing	1.9	365	0.2	Yes	MRF
8	Partney Bridge (River Lymn)	Restricted water available for licensing	33.1	138	5.5	Yes	
9	Lower River Steeping	Restricted water available for licensing	54.8	138	6.8	No	Additional LDE restrictions - see section 3.3

Table 1 Summary of licensing approach for the assessment points of Steeping, Great Eau & Long Eau ALS. The information in this table is correct at the time of publishing but is subject to change. The AP numbering for this ALS area reflects an historic boundary change.

Water availability in the upstream reaches of the Great Eau and Long Eau is overridden by the more critical water resource availability at Cloves Bridge (AP3). Resources in the upstream reaches of the Great Eau and Long Eau are needed to provide additional flow support to Cloves Bridge and therefore only restricted water is available for abstraction.

On some tributaries there is only a small amount of water available for abstraction. On these rivers we may apply a MRF to protect very low flows. However, it would only take a small abstraction to change the water availability status of these tributaries and mean that a HoF would apply to any future licence that was considered.

Tributaries to the main river and to the sea may be subject to different restrictions and quantities. Much of the ALS area is covered by Lindsey Marsh Drainage Board (DB), see Map 7. We will consult the relevant DB for any licence which is considered in a DB area.

APs 3 and 9 will have additional HoL restrictions as they are level managed. More information on these this is provided in section 3.3.

3.2. Groundwater

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 (<u>HoL</u>) 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.

Licence restrictions on groundwater abstractions in the Steeping, Great Eau & Long Eau ALS area

Lincolnshire Chalk

The Lincolnshire Chalk is an important groundwater resource unit in this ALS area. It extends beyond the outline of Map 5 and becomes deeply confined to the east. Chalk is a form of white limestone. Within the aquifer, groundwater generally flows west to east following the shallow dip of the aquifer. Glacial boulder clays overlie the Chalk and associated permeable material over much of the area to the east of the Wolds. Abstraction takes place mainly from this confined region, although only the upper portion of the confined Chalk contributes to groundwater flow – the deeper fraction is less fractured and so groundwater cannot flow through. Within this ALS area the chalk is effectively separated by an underground 'cliff', creating two discrete units.

The resources in the Lincolnshire Chalk are fully committed to existing users and the environment. Consequently, no new consumptive licences will be considered. New non-consumptive licenses will be considered on a case-by-case basis, and will be time-limited.

Spilsby Sandstone

The Spilsby Sandstone is an important groundwater resource unit in this ALS area. It outcrops along the foot of the Wolds before dipping gently to the east under the Chalk and other formations. The outcrop is widest at the southern end of the Wolds near Spilsby and narrows northwards before disappearing around Grasby. The sandstone reaches around 25 m in thickness in the centre, thinning to the north and south. Recharge can take place from rainfall at the outcrop or leakage inputs from overlying drift cover or confining beds. Most of the recharge is lost through the many springs associated with the Spilsby Sandstone, which have contributed to mudflows and landslips along the Wolds scarp.

The resources in the Spilsby Sandstone are fully committed to existing users and the environment. Consequently, no new consumptive licences will be considered. New non-consumptive licenses will be considered on a case-by-case basis, and will be time-limited.

3.3. Level dependent environments

Level dependent environments are characterised by a network of river channels flowing above the level of the surrounding land. The low-lying land has a network of drainage ditches, which remove water from the low-lying land into the main river channels during the winter/high flows and provide an irrigation resource during the summer/low flows (see Figure 1).

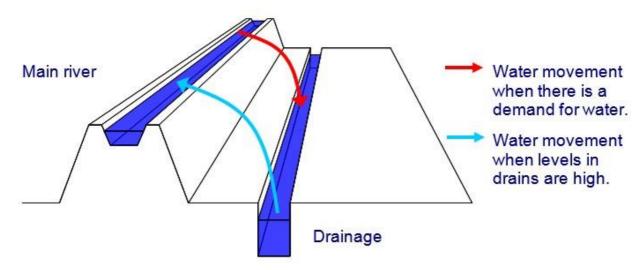


Figure 1: The main features of a characteristic level dependent environment.

The Steeping, Great Eau & Long Eau ALS contains two Level Dependent Environments (LDE); the Great Eau and the Lower Steeping (see Map 7). We have divided these areas into units, known as Level Dependent Management Units (LDMU's) (see Table 2). We have completed an assessment on each of these units.

Licence restrictions on abstractions in relation to the LDEs in the Steeping, Great Eau & Long Eau ALS area

Level Dependent Environment	Associated Level Dependent Management Units
The Great Eau	Theddlethorpe
The Lower Steeping	River Steeping

Table 2: Level dependent environments and management units in the Steeping, Great Eau and Long Eau ALS area.

Drainage of both level dependent environments is operated by the Lindsey Marsh DB. Parts of the DB area are drained to the highland carriers by land drainage pumps. The remaining areas drain direct to the North Sea by land drainage pump or gravity. All pumping stations are operated by Lindsey Marsh DB except for Chapel St Leonards and Croft Lane (in the Lower Steeping LDE) which are operated by the Environment Agency.

We will consult the relevant DB for any licence that is considered in a DB area. Our assessment of water resources in the LDEs is linked to the assessment of the main river channels (highland carriers). When considering applying for an abstraction licence in an LDE reference should be made to the water resource assessment in the main river channel (see Table 3).

Level Dependent Environment	Refer to assessment point
The Great Eau	AP3 Cloves Bridge (see Section 3.1)
The Lower Steeping	AP8 Partney Bridge (see Section 3.1)

Table 3: Level dependent environments and associated water resource assessment points in the Steeping, Great Eau and Long Eau ALS area.

Further information on each of these Level Dependent Environments and the additional licence restrictions which may apply to new licences in these areas is provided below. Licence restrictions in the LDMUs will be determined on a case-by-case basis.

LDE unit 1: The Great Eau

The Great Eau LDE covers approximately 30.6 km² and is ultimately drained by Theddlethorpe pumping station into the Great Eau. The upstream part of the pumped catchment is non-level dependent, whereas the low-lying coastal plain areas between the highland carriers are level dependent environments. Drainage of these low-lying areas is operated by the Lindsey Marsh DB. Parts of the DB area are drained to the highland carriers by land drainage pumps. The remaining areas drain direct to the North Sea by land drainage pump or gravity. A number of abstractions from the highland carrier into the internal drains are controlled by licences held by the Lindsey Marsh DB.

In most cases licences for abstraction from the Great Eau LDE will contain the following conditions:

- 1. A HoL condition set at the Cloves Bridge (assessment point 3), and/or
- 2. A HoF condition set at Little Carlton (assessment point 1) and/or a HoF condition set at Claythorpe (assessment point 2), and,

3. A site specific HoL condition relevant to the local level management system to be agreed following liaison with the relevant DB.

Through the use of the above conditions (1 and/or 2 and 3) the resources of the main river and local DB network are protected in addition to the rights of other water users.

LDE unit 2: The Lower Steeping

The Lower Steeping LDE covers an area of approximately 33.4 km². The area consists of the catchments to Crown, Thorpe Culvert and Croft Lane pump stations. The Crown and Thorpe Culvert pumping stations discharge directly to the Lower Steeping. The Croft Lane pumping station (operated by the Environment Agency) discharges from the Cowcroft Drain to the Lower Steeping. The Cowcroft Drain is in effect a highland carrier through the LDE and the catchment is not part of the LDE. Abstractions from the highland carrier to the drains in the area are controlled by licences held by the Lindsey Marsh DB.

Burgh Sluice and Gibraltar Point pump stations discharge direct to tide and are not assessed as part of the Lower Steeping LDE.

In most cases licences for abstraction from the Lower Steeping LDE will contain the following conditions:

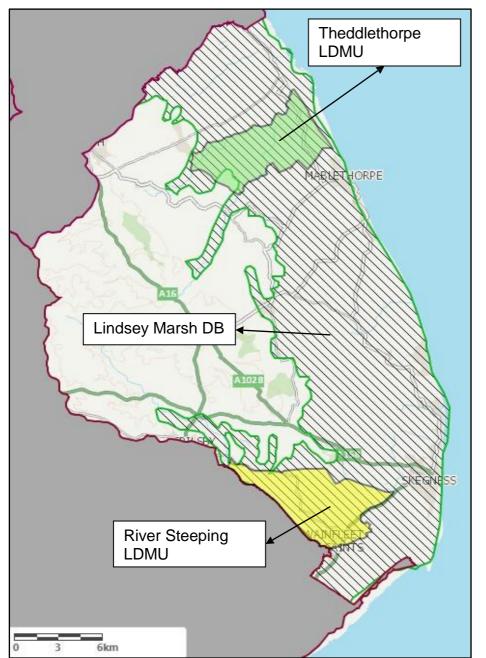
1. A HoL condition set at the Havenhouse Sluice, and/or

2. A HoF condition set at Partney (surface water assessment point 6), and,

3. A site specific HoL condition relevant to the local level management system to be agreed following liaison with the relevant DB.

Through the use of the above conditions (1 and/or 2 and 3) the resources of the Main River and local DB network are protected in addition to the rights of other water users.

Water level management is currently under review in the Steeping catchment and this ALS will be updated if there are any changes.



Map 7: Level dependent environments in the Steeping, Great Eau & Long Eau ALS.

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3.4. Coasts and estuaries

The River Steeping flows to The Wash embayment, discharging via Haven House Sluice. The Wash is the largest estuarine system in the UK, a mostly shallow embayment where the Rivers Ouse, Nene, Welland and Witham drain into the North Sea. Between them these rivers drain an area of approximately 15,000 km². Despite freshwater inputs from the very large catchment area, marine processes dominate the physical and biological character of the embayment. The Wash plays an extremely important role in relation to the wider coastal and marine environment of the region.

The Wash is designated as a Site of Special Scientific Interest (SSSI) and forms part of The Wash and North Norfolk Coast marine Special Area Conservation (SAC), The Wash Special Protection Areas (SPA) and The Wash Ramsar site.

Between the Wash and Skegness (a distance of approximately 3 miles) lies Gibraltar Point. This site is recognised nationally and internationally for its species and habitats being designated a SSSI, National Nature Reserve (NNR) and SPA.

The other main water courses within the catchment area discharge into the Humber Estuary. The Humber Estuary supports large numbers of waterfowl/birds (especially geese, ducks and waders) during the migration periods and in winter. It also supports important breeding populations of terns and raptors in summer. The site's importance for habitats and species underlies its designation as an SPA, SAC and Ramsar wetland of international importance. South of the Humber Estuary is the Saltfleetby-Theddlethorpe Dunes SSSI, NNR and SAC.

Any new abstraction licences with the potential to affect the internationally designated sites described above will be assessed under the Habitats Directive.

3.5. 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 (<u>SAC</u>), which contribute to biodiversity by maintaining and restoring habitats and species;

• Special Protection Area (<u>SPA</u>), which provides protection to birds and their nests, eggs and habitats

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

There are a number of nationally and internationally designated sites of ecological and conservation importance within the Steeping, Great Eau and Long Eau catchment. Several of the sites are water dependent, and therefore potentially impacted by river flows and abstraction.

In the Steeping, Great Eau & Long Eau ALS area, the key protected areas that need to be considered are:

- Saltfleetby-Theddlethorpe Dunes (SSSI and SAC)
- Gibraltar Point (SSSI, SAC, SPA and Ramsar site)
- Humber Estuary (SSSI, SAC, SPA and Ramsar site)

Other notable local water dependent sites of conservation importance within the ALS area include Calceby Marsh SSSI, Swaby Valley SSSI, Mavis Enderby Valley SSSI and New England Valley SSSI.

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 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 previously on Maps 1 to 4.

To find out more about licence trading please go to our <u>water management web pages on</u> <u>gov.uk</u>

Guide to the potential trading in water bodies of a particular ALS water resource availability colour

Water available for licensing

Green

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

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 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 recent actual abstraction but no increase in recent actual abstraction is permitted in water body. Licensed abstraction will be recovered for the environment.

HMWBs

Grey

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

4.1.1. Water rights trading in Groundwater bodies

There may be opportunities for licence holders to trade. Applications will be determined on a case-by-case basis.

4.2. Taking action on unsustainable abstraction

4.2.1. Action being taken on unsustainable abstraction in the Steeping, Great Eau & Long Eau

There are a series of actions that we taking to address unsustainable abstraction, as part of our Water Abstraction Plan. These include:

- Taking action to reduce or revoke any unused or partially used licences across the area to secure the proper use of water resources.
- Reviewing time limited licences, adjusting them as necessary to make sure they do not allow environmental damage now and in the future.

4.3. Regulating previously 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 meant that unlimited supplies of water could be abstracted, even in areas that are water stressed.

This means 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 have introduced new Regulations to take effect from 1st January 2018. The Water Resources (Transitional Provisions) Regulations 2017 have removed the majority of previous exemptions from licensing control, and 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 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 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.

MRF Minimum Residual Flow.

SAC Special Areas of Conservation.

SPA Special Protection Areas.

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SSSI

Sites of Special Scientific Interest.

UKTAG

United Kingdom's Technical Advisory Group.

WB

Water body.

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 (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 <u>UKTAG</u>.

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 or borehole (groundwater) level below which an abstractor is required to reduce or stop abstraction.

Impoundment

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

Minimum Residual Flow

The flow set at a river gauging station to protect downstream uses. When flow falls below this level controlled abstractions are required to cease.

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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