



Nene Catchment Abstraction Licensing Strategy

A strategy to manage water resources sustainably

March 2021

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We help people and wildlife adapt to climate change and reduce its impacts, including flooding, drought, sea level rise and coastal erosion.

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

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

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1. About the licensing strategy

This strategy sets out our approach to managing new and existing [abstraction](#) and [impoundment](#) within the Nene [catchment](#) in the Anglian river basin district. The River Nene rises in Northamptonshire and flows through Northampton, Peterborough, Wisbech and Sutton Bridge before discharging into the Wash.

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

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

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

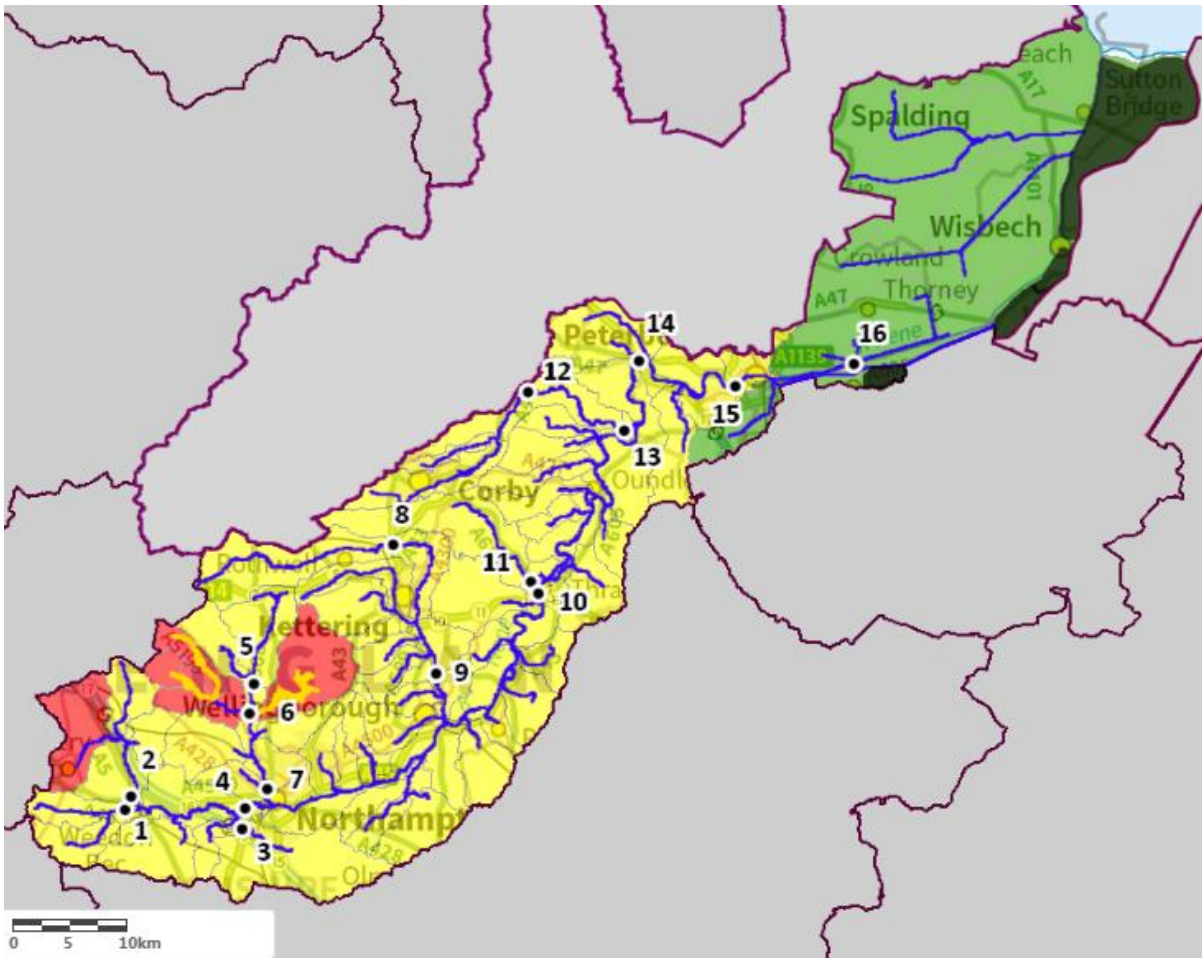
Please see [abstraction pages on gov.uk](#) for advice on who needs an abstraction or impoundment licence, and [how to apply](#).

2. Water resource availability of the Nene 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 the Nene ALS.



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There is no surface water available in the summer. Surface water may be available in the green coloured area on the map above during winter subject to conditions. See section 3.1 for further details.

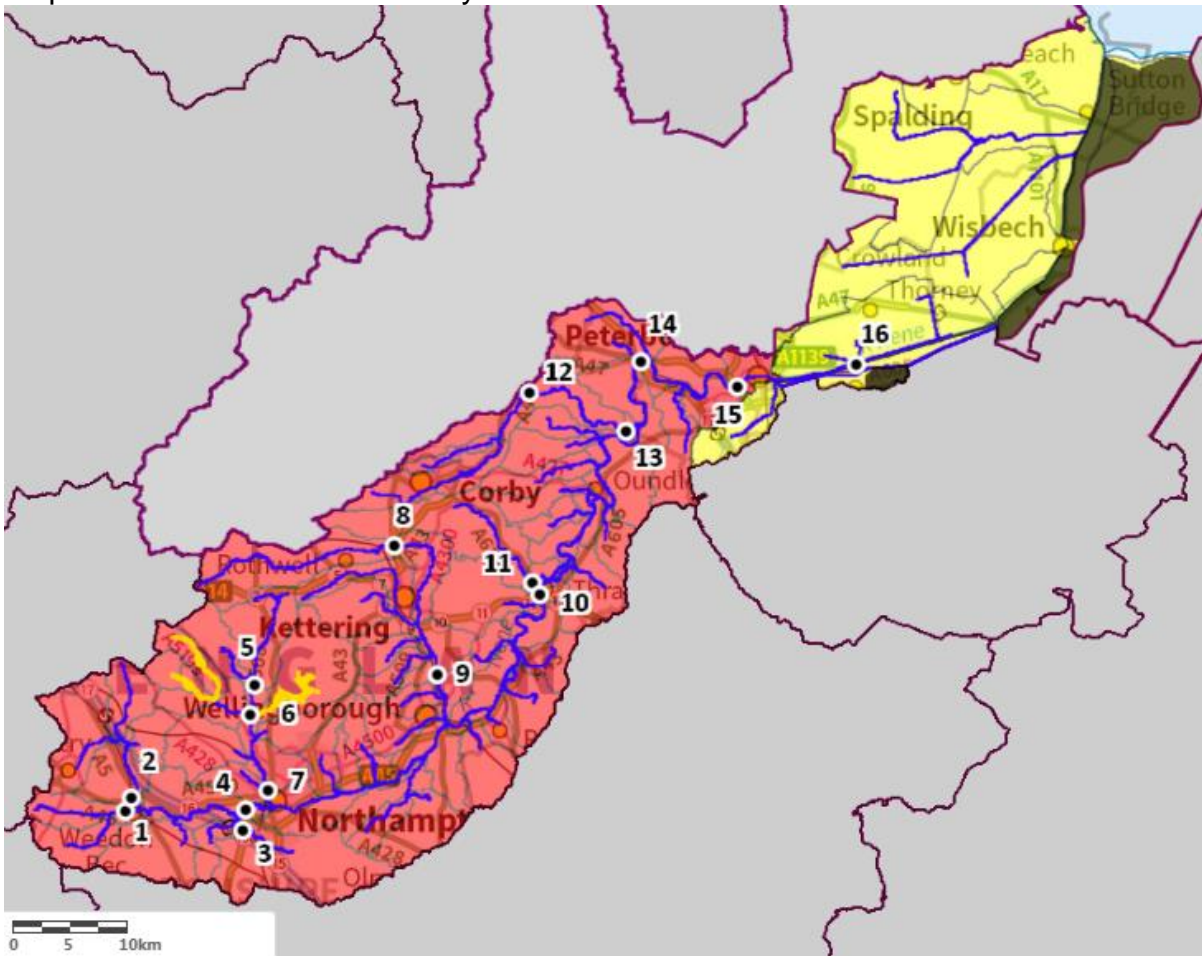
Legend:

- Assessment Points
- Heavily Modified and Artificial Rivers (designated for water resources reasons)
- Heavily Modified Artificial lakes (designated for water resources reasons)
- Rivers

Water Availability at Q30:

- Water available
- Restricted water available
- Water not available
- Unassessed

Map 2 Water resource availability colours at Q50 for the Nene ALS.



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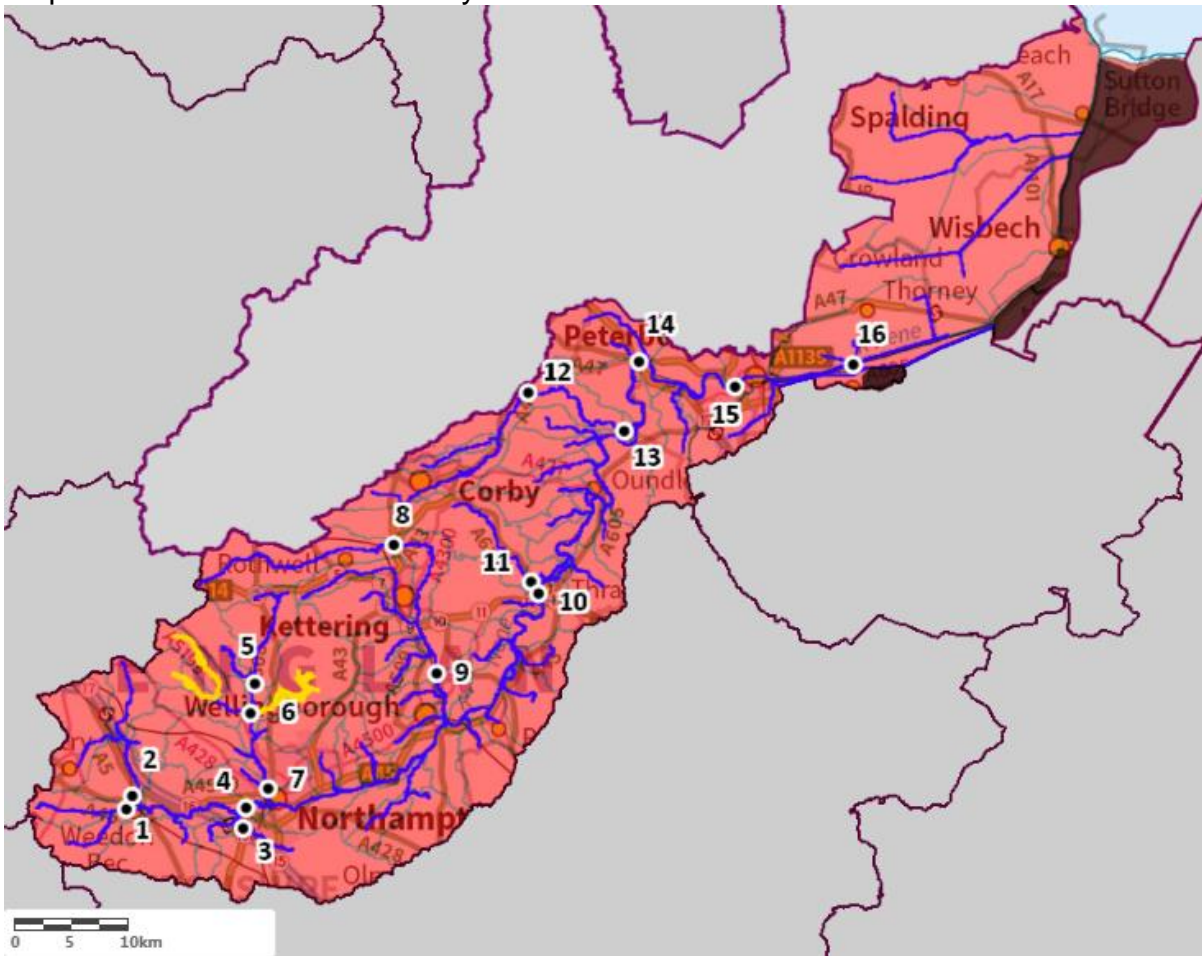
Legend:

- Assessment Points
- Heavily Modified and Artificial Rivers (designated for water resources reasons)
- Heavily Modified Artificial lakes (designated for water resources reasons)
- Rivers

Water Availability at Q50:

- Water available
- Restricted water available
- Water not available
- Unassessed

Map 3 Water resource availability colours at Q70 for the Nene ALS.



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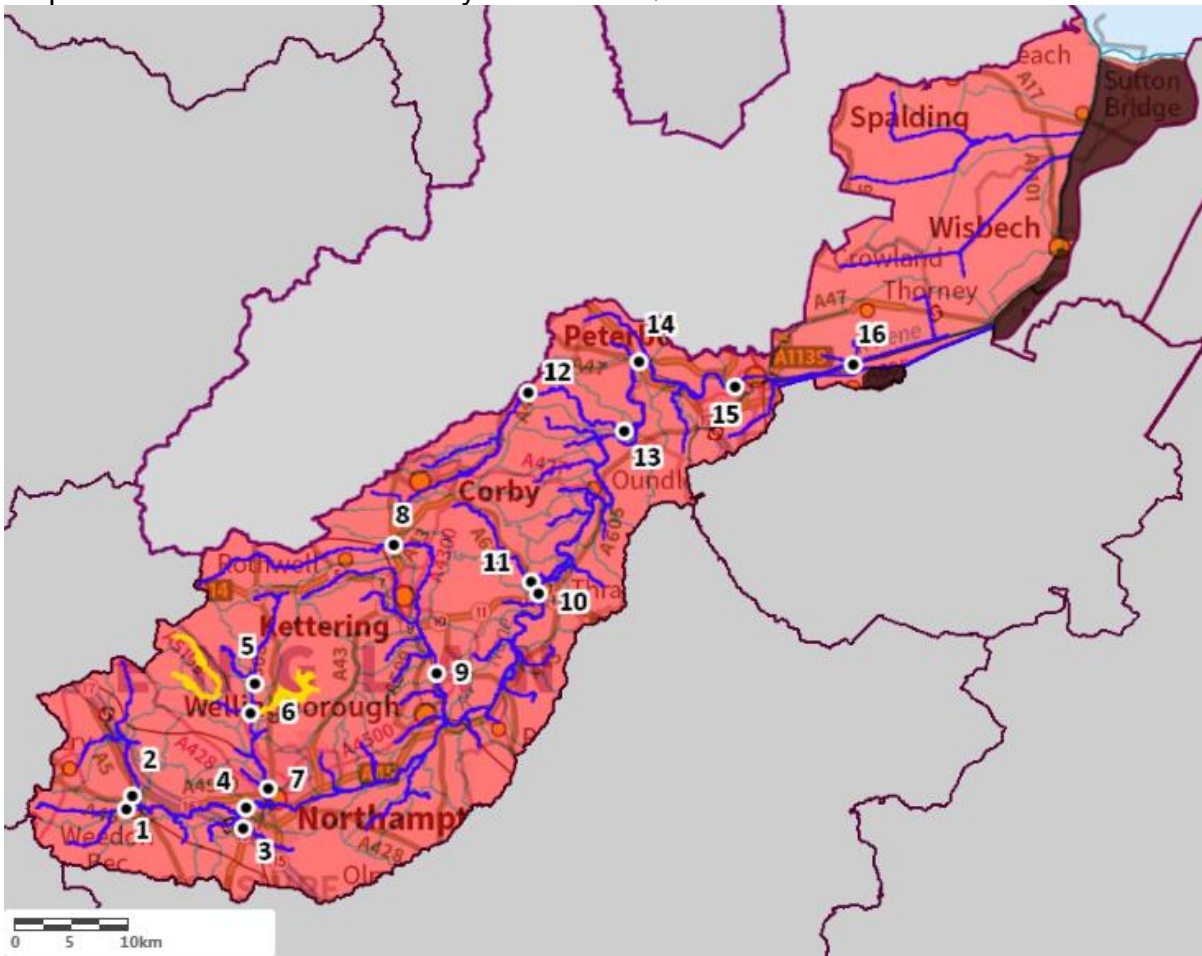
Legend:

- Assessment Points
- Heavily Modified and Artificial Rivers (designated for water resources reasons)
- Heavily Modified Artificial lakes (designated for water resources reasons)
- Rivers

Water Availability at Q70:

- Water available
- Restricted water available
- Water not available
- Unassessed

Map 4 Water resource availability colours at Q95 for the Nene ALS.



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Legend:

- Assessment Points
- Heavily Modified and Artificial Rivers (designated for water resources reasons)
- Heavily Modified Artificial lakes (designated for water resources reasons)
- Rivers

Water Availability at Q95:

- Water available
- Restricted water available
- Water not available
- Unassessed

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' ([GES](#)) or 'Good Ecological Potential' ([GEP](#)) 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 ([HMWBs](#)) and/or [discharge](#) rich water bodies

Grey 

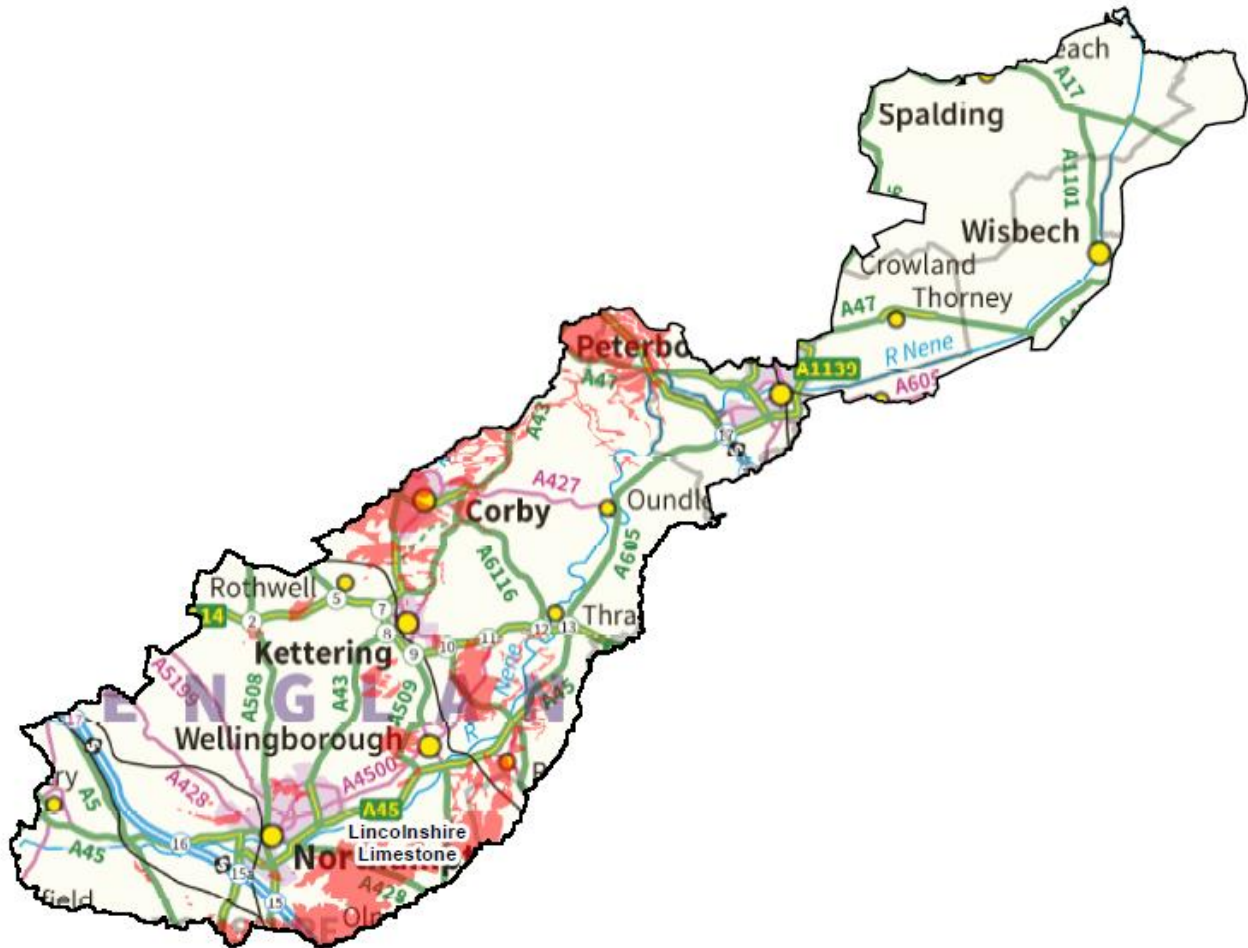
These water bodies have a modified flow that is influenced by reservoir compensation releases or they have flows that are augmented. These are often known as 'regulated rivers'. They may be managed through an operating agreement, often held by a water company. The availability of water is dependent on these operating agreements.

There may be water available for abstraction in discharge rich catchments, you need to contact 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 Nene area.

Map 5: Groundwater resource availability colours for the Nene 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.

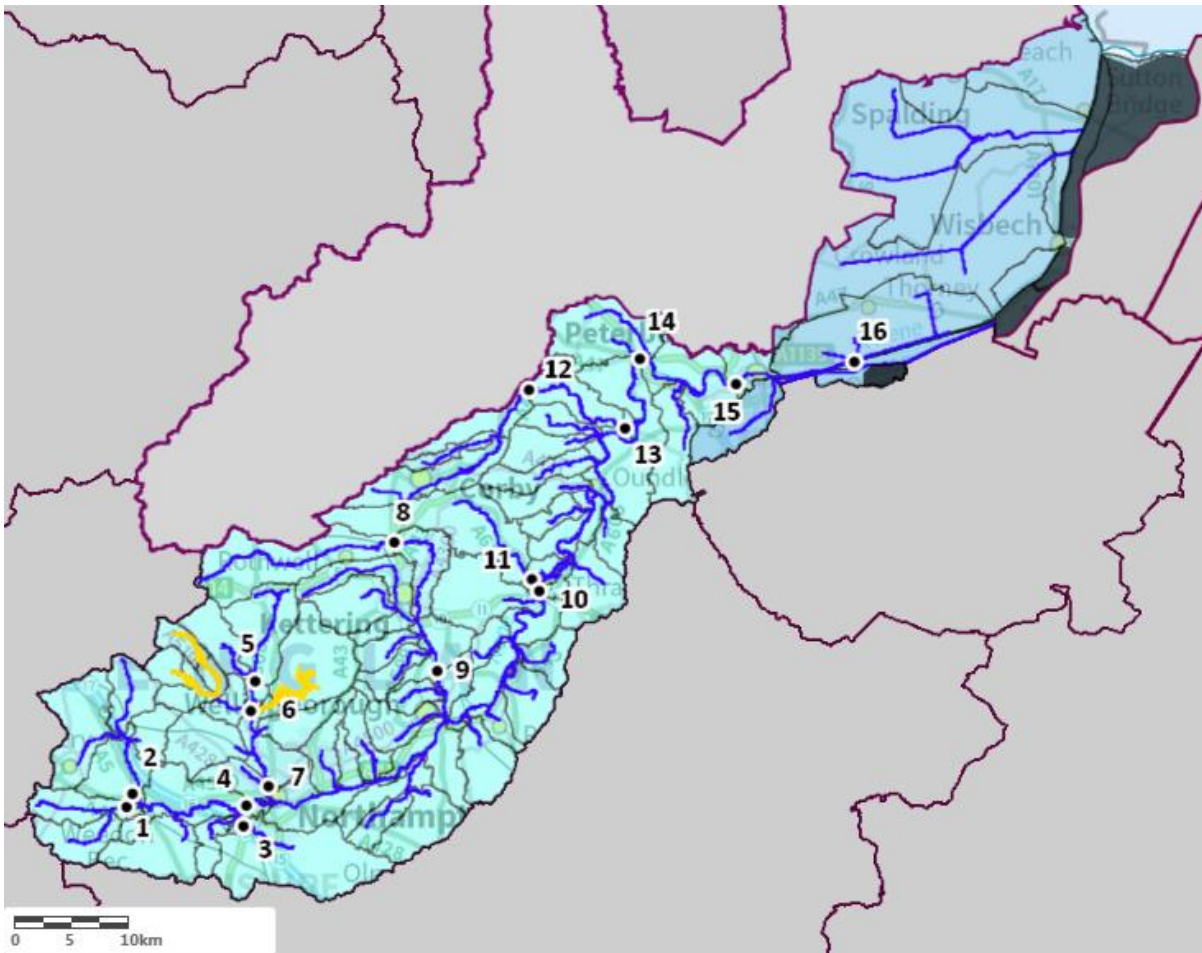
2.3. Resource reliability

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 [consumptive abstraction](#) in the Nene area expressed as a percentage of time.

Map 6: Water resource reliability of the Nene ALS expressed as percentage of time available.



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Please note that there is no water available in the water bodies to the east and west of AP6 (the Heavily Modified rivers coloured orange on the map above).

Legend:

- Assessment Points
- Heavily Modified and Artificial Rivers (designated for water resources reasons)
- Heavily Modified Artificial lakes (designated for water resources reasons)
- 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
- Unassessed

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 ([CED](#)), which allows them to be reviewed at the same time. The next CED for this ALS is 31 March 2029 and the subsequent one is 31 March 2041.

2.5. Impoundments

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

3. How we manage abstraction in the Nene 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 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 [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, 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 Nene 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. 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	Weedon	Restricted water available	87.3	36	77.1	No	
2	Dodford	Restricted water available	186	36	82.2	Yes	
3	Wooton Brook	Restricted water available	152.4	36	82.2	Yes	
4	Duston Mill	Restricted water available	270.8	36	82.2	No	
5	Brixworth	Restricted water available	42.6	76	44.7	Yes	
6	Merry Tom	Restricted water available*	59.2	76	22.9	No	
7	St Andrews Mill	Restricted water available	111.5	76	25.6	Yes	
8	Barford Bridge	Restricted water available	55	76	67.8	Yes	
9	Harrowden Mill	Restricted water available	158.7	76	181.1	Yes	
10	Main Nene u/s of conf Harpers Brook	Restricted water available	674.1	76	298.8	No	
11	Harpers Brook	Restricted water available	45.6	76	49.7	Yes	

12	Blatherwycke Lake	Restricted water available	68.6	76	71.7	No	
13	Fotheringhay	Restricted water available	87.8	76	87.8	Yes	
14	Wansford	Restricted water available	917.9	76	298.8	Yes	
15	Orton Lock	Restricted water available	721.3	76	265.8	Yes	
16	Nene Downstream Boundary	Restricted water available	666	76	298.8	No	Specific LDE restrictions - see section 3.5

Table 1 Summary of licensing approach for the assessment points of Nene ALS. The information in this table is correct at the time of publishing but is subject to change.

*There is no water available in the waterbodies to the east and west of AP6 (see Maps 1-4).

Tributaries to the main river and to the sea may be subject to different restrictions and quantities. Part of the ALS area is covered by Internal Drainage Boards (IDBs), see Map 7. We will consult the relevant IDB for any licence which is considered in an IDB area. There is no surface water available in the summer in the IDB areas. Surface water may be available in the winter subject to conditions. See section 3.5 for further details.

AP16 will have additional HoL restrictions as it is level managed. More information on this is provided in section 3.5.

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

Licence restrictions on groundwater abstractions in the Nene ALS area

Lincolnshire Limestone

There are no significant groundwater resources in the Nene ALS area, reflected by the lack of large groundwater abstractions. The southern extremities of the principal Lincolnshire Limestone aquifer reach the Nene catchment. The sections in the Nene ALS area are largely outcrops where rainfall can recharge the aquifer. This is not a reliable resource of groundwater, although it does contribute to river flows and some small-scale supplies.

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

Secondary aquifers

The remainder of the Nene catchment is dominated by secondary aquifers such as Northampton Sands Formation and to a lesser extent Marlstone Rock Formation, which are relatively widely exploited for small-scale abstractions and supporting surface water features.

The Northampton Sand is a ferruginous sandstone, which is a sandstone containing iron oxides, and so is often referred to as an ironstone. It is generally 5 – 8 m thick, but can be up to 20 m thick. Where it outcrops it is highly weathered and very porous. Springs often occur where the Northampton Sand forms a junction with the underlying Whitby Mudstone. A lot of the ironstone has been worked out in the past but these workings are now largely backfilled and restored; this may have affected localised recharge mechanisms.

Marlstone Rock Formation is a calcareous ironstone typically about 3 m thick. It is the most important aquifer in the Middle Lias, with groundwater flow through fissures as it is very fine-grained. Flow is generally to the south-east, following the gentle dip of the strata. Recharge is considered to be high compared to abstraction and contribution to river flow, and so it is thought to contribute water to other formations.

There may be the opportunity for consumptive abstraction from these secondary aquifers providing there is no hydraulic connectivity with the Lincolnshire Limestone or surface water features.

Sands and Gravels

There are several superficial deposits of sands and gravels which are being used for groundwater abstraction within this catchment. Groundwater in sands and gravels is relatively close to the ground surface, and so can be easily accessed through catchpits or shallow wells.

There may be the opportunity for consumptive abstraction from Sands and Gravels providing there is no hydraulic continuity with surface water features or with the Lincolnshire Limestone.

3.3. Quarries

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. This includes the dewatering of quarries.

To support a formal application for dewatering of quarries, potential abstractors are likely to be required to:

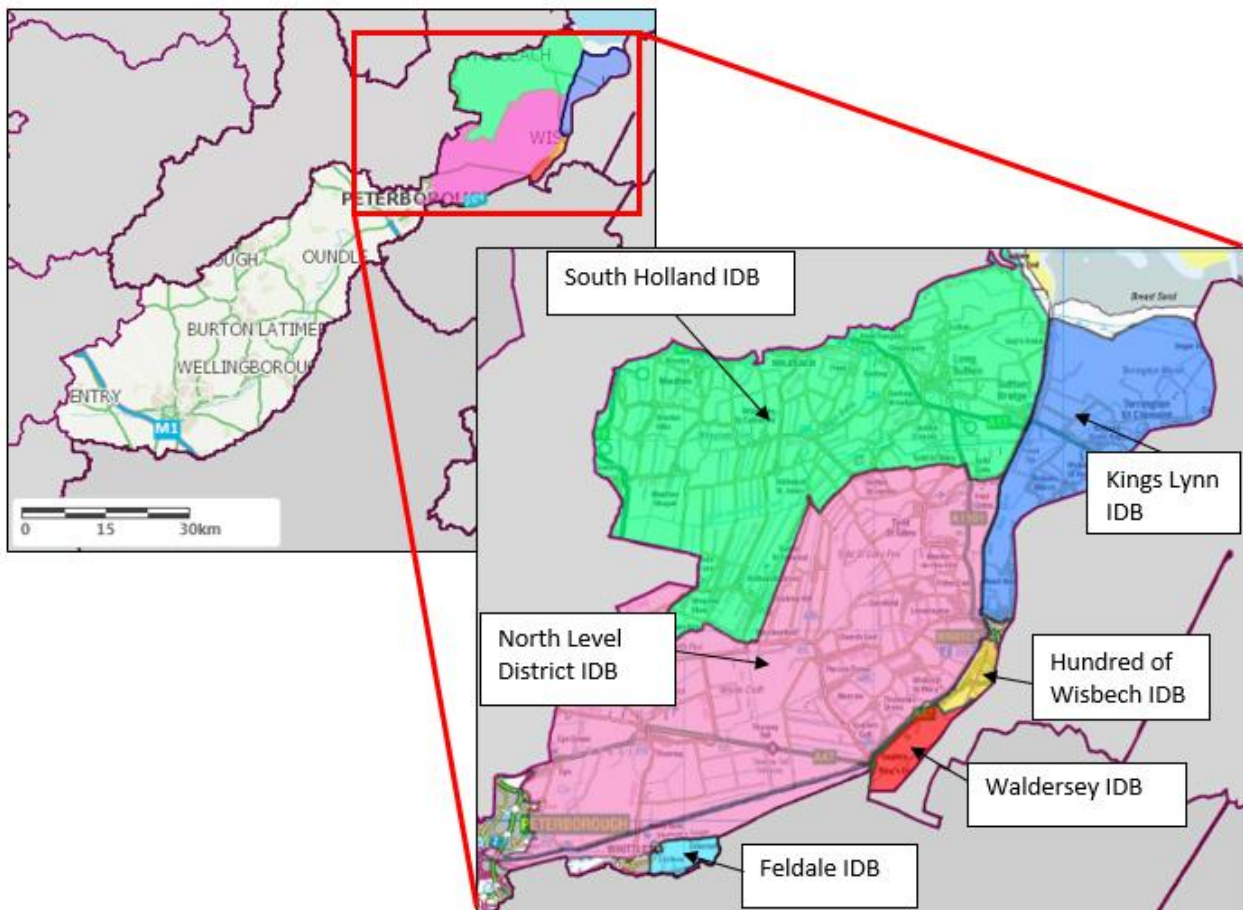
- Undertake an environmental survey to determine the presence of any environmental features which may require protection.
- Undertake a pump test to demonstrate that operations won't adversely affect any other water users or features.
- Demonstrate that they are maximising local groundwater recharge before water is discharged to the local surface water environment.
- Show that where discharge to surface water is taking place that the location of the discharge point is upstream of any potential impacts. This can help with mitigating any impacts.

It is recommended that you discuss your proposed abstraction and confirm necessary requirements with us before commencing.

3.4. Internal Drainage Boards (IDBs)

The Nene ALS area contains the North Level District IDB, South Holland IDB and Feldale IDB, along with small sections of neighbouring IDBs.

Map 7: Internal Drainage Boards in the Nene ALS.



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We will consult the relevant IDB for any licence that is considered in an IDB area.

In most cases licences for abstraction within an IDB area will require a HoL condition relevant to the local level management system agreed following liaison with the relevant IDB. This will be in addition to a HoF on the main river. See section 3.5 for further information.

3.5. 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).

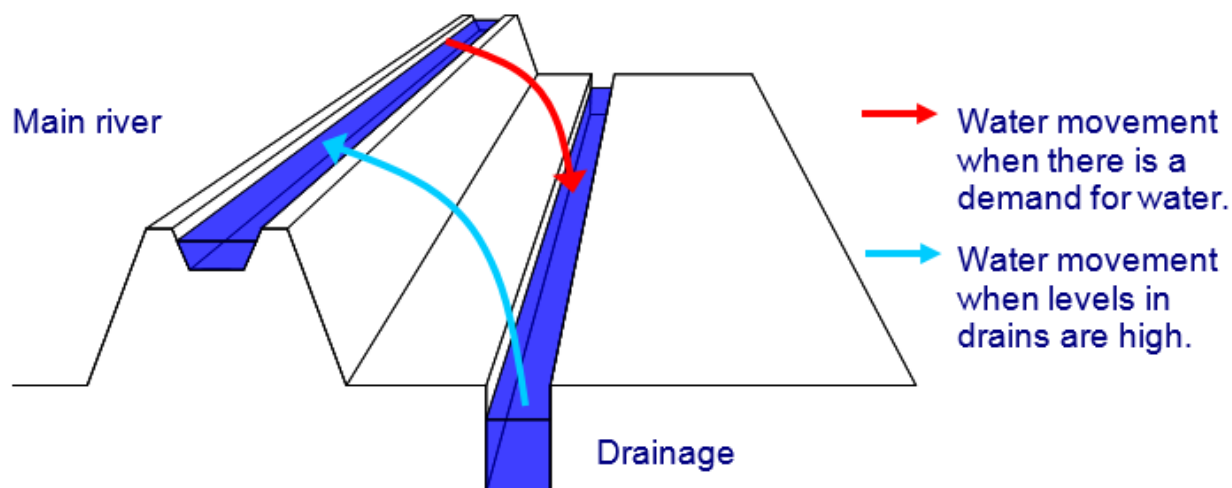


Figure 1 The main features of a characteristic level dependent environment

The Nene ALS contains two level dependent environments (LDE); the Nene Washes and the North Level (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 Nene ALS area

Level Dependent Environment	Associated Level Dependent Management Units
North Level	Cross Guns
North Level	Dog in a Doublet
The Nene Washes	The Nene Washes

Table 2 Level dependent environments and management units in the Nene ALS area

We will consult the relevant IDB for any licence that is considered in an IDB 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
North Level	AP 16 Nene Downstream Boundary (see Section 3.1)
The Nene Washes	AP 16 Nene Downstream Boundary (see Section 3.1)

Table 3 Level dependent environments and associated water resource assessment points in the Nene 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.

It's important to note that the demand for water resources in the Lower Nene can exceed the volume of available water in dry summer periods. The Lower Nene is subject to demands for abstraction for public water supply, spray irrigation and transfer through Stanground Lock to maintain the water level in the Middle Level System. Active

management of the demands for water is necessary when demands exceed the volume of water available. A local catchment group consisting of the Environment Agency, Anglian Water and IDBs meet regularly through the summer to work together and help manage the water available.

LDE unit 1: The North Level LDE

The main Internal Drainage Board (IDB) area in the lower Nene catchment is the North Level IDB which covers an area of approximately 31,970 hectares of which 82% is in the catchment of the River Nene and 18% is in the catchment of the River Welland (the Welland ALS can be viewed [here](#)). The main purpose of water abstraction in this area is spray irrigation. The North Level IDB uses a Water Level Management Plan to operate the water levels in the IDB area effectively. The plan divides their area into nine small catchments for which there are numerous water control structures to regulate water levels in the summer. As a consequence of this, and the nature of the area, any restrictions are given as hands-off levels rather than flows. It was decided in the 1990s that no additional summer water was available from the Nene, whilst the resources of the drains were considered to be fully committed so no further summer licences could be granted. This is still the view today, however, we may consider proposals on a case-by-case basis in 'discharge-rich' systems.

LDE unit 2: The Nene Washes LDE

The Nene Washes occupy a large trapped area between the tidal River Nene and Morton's Leam where levels are maintained by a series of local impoundments. Water is diverted from the River Nene at Stanground Sluice through the Morton's Leam, which is the main river and controlled by the Environment Agency. Stanground Sluice is the primary route in high flow periods to divert water into the Nene Washes for flood storage. Water from Morton's Leam then backs up the internal drains which cross the washlands. Flow from the Morton's Leam is returned to the lower tidal Nene at Rings End Sluice, which subsequently discharges into the Tidal Nene. The Washes are usually flooded to varying depths in most winters. During the summer flow through Stanground Lock maintains levels in the Morton's Leam and the Nene Washes for wet fencing, irrigation and conservation. The optimal summer support flow is estimated to be 15 MI/d.

The Nene Washes is designated as a Site of Special Scientific Importance (SSSI) and Special Protection Area (SPA) for its bird interest, and a significant proportion is managed by the Royal Society for the Protection of Birds (RSPB) as a nature reserve. In addition to the site's national and European Habitats Directive designations it is also designated under the Ramsar Convention on Wetlands of International Importance for bird interest and for the flora and invertebrates of its ditch systems. The continued importance of the site is dependent on the maintenance of regular winter flooding, together with controlled summer grazing and a high, but controlled, summer water table.

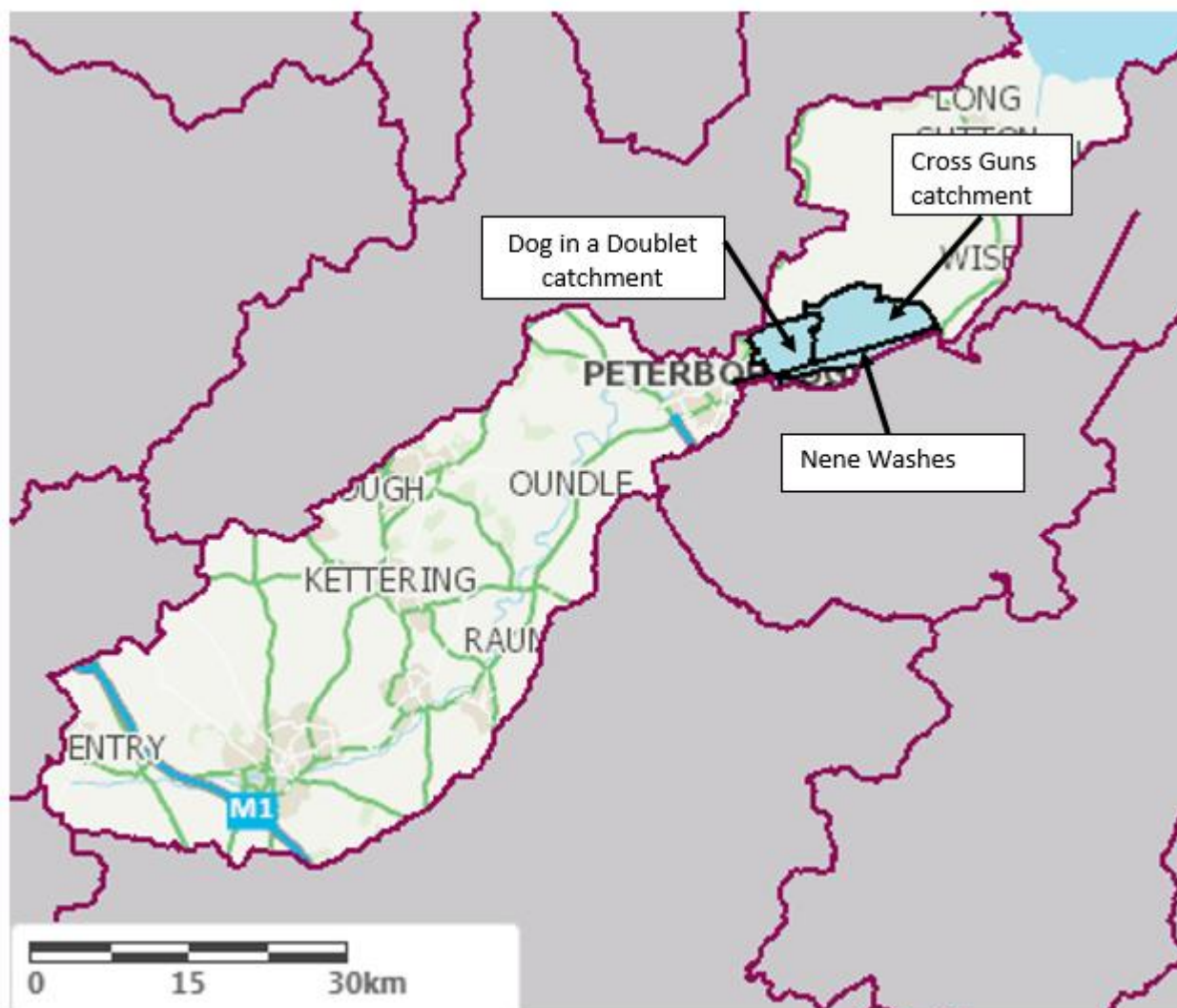
Licence restrictions in the North Level and Nene Washes

Licence restrictions in the LDMUs will be determined on a case-by-case basis. In most cases licences for abstraction from either Cross Guns, Dog in a Doublet or the Nene Washes will contain the following conditions:

1. A HOL condition set at the Dog in a Doublet sluice, and/or
2. A HOF condition set at Wansford (surface water assessment point 16), and,
3. A site specific HOL condition relevant to the local level management system to be agreed following liaison with the relevant IDB.

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

Map 8: Level Dependent Management Units in the Nene ALS.



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Legend:

— Rivers

3.5.1. Holbeach Marsh

Surface water in the Holbeach Marsh area is primarily derived from rainwater or land drainage sources. Holbeach Marsh is characterised by a network of drainage ditches. However, the drains do not receive water from highland carriers and consequently the area is not considered to be a true level dependent area. Consequently, the area has not previously been assessed as part of the ALS process. The area does however lie within the South Holland IDB who manage a number of drains in the area. For further information about water resource availability and the abstraction licensing strategy in this area please consult our [Holbeach Marsh ALS](#).

3.6. Coasts and estuaries

The River Nene discharges to The Wash embayment via Dog in a Doublet 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.

The Wash Site of Special Scientific Interest (SSSI) is located within the embayment and forms landward borders with Lincolnshire (to the west and south) and Norfolk (to the east). The SSSI is 63,135 ha, comprising mainly sandflats and mudflats. The Wash SSSI also forms part of The Wash and North Norfolk Coast marine Special Area of Conservation (SAC), The Wash Special Protection Area (SPA) and The Wash Ramsar site.

The tidal range of The Wash is 6.5 metres, the highest on the North Sea coast of Britain. Despite freshwater inputs from the large catchment area, marine processes dominate the physical and biological character of the embayment. Whilst natural freshwater flows are recognised to be low they are nonetheless important to over-wintering birds. The Wash plays an extremely important role in relation to the wider coastal and marine environment of the region. The value of freshwater flows to The Wash from the smaller drains and creek systems is recognised.

Any new abstraction licences with the potential to affect The Wash SPA/SAC will need assessing under the Habitats Directive.

3.7. Heavily Modified Water Bodies

Some water bodies may be designated as ‘artificial’ or ‘heavily modified’. This is because they have been created or modified to suit a particular purpose such as water supply, flood protection or navigation.

There are 6 heavily or artificial water bodies (see Table 4) in the Nene ALS area designated for water supply and regulation.

Water Body ID	Water Body name
GB30538132	Hollowell Reservoir
GB30538199	Pitsford Water
GB30538230	Ravensthorpe Reservoir
GB105032045470	Pitsford Arm of the Brampton Branch
GB105032045490	Ravensthorpe arm of Spratton Brook
GB105032045510	Hollowell Arm of Spratton Brook

Table 4 Heavily modified and artificial water bodies in the Nene ALS area.

3.8. Protected areas

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

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

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

There are a number of designated and non-designated sites of conservation interest in the Nene catchment. Many of these features are water-dependent. Of particular importance are the Upper Nene Valley Gravel Pits (SSSI, SPA and Ramsar site), Orton Pits (SSSI and

SAC) and the Nene Washes (SSSI and SPA) all of which hold both national and international designations.

Any new abstraction licenses with the potential to affect The Wash SPA/SAC will need assessing under the Habitats Directive.

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 [water management web pages on gov.uk](#)

Guide to potential water rights trading in the Nene ALS

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 Nene

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.

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 [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 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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