

New Authorisations for the Wetland Sector

Bringing previously exempt activities into the licensing regime.

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Aims of the day

- Provide an overview of current NA situation;
 - Why?
 - 4,500 challenge and where wetland sector fit in.
 - Abstraction principles.
- Outlining the New Authorisations application process – differences to day job.
- The basic wetland application.
 - What is required.
 - Minimising additional requests from the Agency.
 - What's not necessary.
- Examples / Case Studies / Scenarios
- Contacts for queries and application support.
- Allow you to ask questions / raise queries.
- Important – not covering policy/legal issues.

Why the need for New Authorisations

- Taking water responsibly
- Water Framework Directive
- Habitats Directive
- Serious Damage
- Abstraction Reform

New Authorisations Summary

- Expecting a total of 4,500 applications in total.
- This number varies across areas and sectors.
- Approx. 1,500 applications expected from “wetland sector”.
- You can secure water under a light touch restrictions approach.
- You can continue to abstract at current rates until the application has been determined.
- Historic rights to water will be lost if a **valid** application is not received by 31st December 2019.

What do we mean by the term, “Wetland Sector”?



Legal Definitions (1)

- ➔ "abstraction", in relation to water contained in any source of supply, means the doing of anything whereby any of that water is removed from that source of supply, whether temporarily or permanently, including anything whereby the water is so removed for the purpose of being transferred to another source of supply; and "abstract" shall be construed accordingly.

- ➔ "source of supply" means—
 - (a) any inland waters except, any which are discrete waters; or
 - (b) any underground strata in which water is or at any time may be contained (this can include unlined ponds and reservoirs).

Legal Definitions (2)

- ➔ inland waters" means the whole or any part of—
 - (a) any river, stream or other watercourse, whether natural or artificial and whether tidal or not;
 - (b) any lake or pond, whether natural or artificial, or any reservoir or dock, in so far as the lake, pond, reservoir or dock does not fall within paragraph (a) of this definition; and

- ➔ "watercourse" includes all rivers, streams, ditches, drains, cuts, culverts, dykes, sluices, sewers and passages through which water flows, except mains and other pipes which—
 - (a) belong to the Authority or a water undertaker; or
 - (b) are used by a water undertaker or any other person for the purpose only of providing a supply of water to any premises

Legal Definitions (3)

The managed wetland system exemption is defined as:

‘an area of land that may be periodically inundated with water through a system of sluices, channels and carriers or other apparatus’.

In practice this covers transfer of water from inland waters through a series of carriers:

- and returning it to inland waters **without being transferred directly onto land** and abstractions may take place between the various carriers by various apparatus
- or letting it **flood onto land** somewhere within the system (to then either flow over or stand on the land)

Legal Definitions (4)

- Exemption (section 8): Any secondary abstractions or transfers within the ‘system’ **will not need a licence** if associated with the operation or management of the system.
 - Exemption – A consent will be required if the abstraction is in relation to a European site. Process of “consenting” still to be confirmed, however, likely to accept an application for the main licence as the application for the consent.
- Check the definition of a managed wetland system has been met.

New Authorisations Regulation requirements: re. Wetlands

- If the definition of a managed wetland system has been met, a licence will only be needed for the **primary abstraction** which moves water from the donor source into the ‘system’.
- A licence is not needed for abstractions or transfers within the remainder of the system (these are referred to as **secondary abstractions**) providing that they are associated with the operation of the system. So, we;
- **Will** licence the abstraction **into** the “managed wetland system” MWS.
- **Will not** licence subsequent abstractions **within** the MWS.
- **Will not** licence **structures within** the MWS.
- **May** licence the abstraction **out of** the MWS.

Applying for an abstraction licence

- Who's responsible?
 - Engage with all parties involved in a system.
- The number of licences required (and hence number of fees) depends on the number of sources of supply involved.
- One application fee for every application required for each source of supply.
- NPS can help in these discussions.

New Authorisations Applications

- Differences from day job:
- A more light touch water constraints on entry
- Granting licences in line with historic volumes where appropriate
- Not requiring rigorous monitoring and reporting for transfer licences
- NA specific set of application forms – WR344 and WR346
- Requiring but being flexible regarding the type of evidence – 7 year qualifying period
- Revision of exemptions for low risk abstractions

New Authorisations Applications

- Differences from day job continued.....:
- Provided a transitional period of up to 5 years
- Allowing abstraction to continue at historic rates until determined
- Applying a flexible approach to the use of volumes on transfer licences
- Applying a flexible approach to the use of flow controls
- Applying a lower level of constraint than would be applied to new entrants
- 3 months validation service (can be quicker)

Application for a water resources licence – part B



Water Resources Act 1991 (as amended by the Water Act 2003), Environment Act 1995
The Water Resources (Abstraction and Impounding) Regulations 2006
The Water Resources (Transitional Provisions) Regulations 2017

Introduction

Please read through this form and the guidance notes carefully before you fill this form in.

If you are not sure about anything in this form, phone us on 03708 506 506 or email us at enquiries@environment-agency.gov.uk.

Contents

- B1** Applicant's name, site name and type of licence you are applying for
B2 Existing licence number(s)
B3 Other applications
B4 Source of supply
B5 Rights of access and planning permission
B6 Evidence of abstraction

- B7** Transfer of water to maintain a water levels
B8 Dewatering operations
B9 Method and measurement of abstraction
B10 Discharge details
B11 Licence duration
B12 Other abstractions
B13 Licence aggregation details
B14 Management agreements
B15 Environmental impact assessment (EIA)
B16 Safe passage for eels
B17 Supporting documents
B18 Application fee
B19 Declaration and signature
B20 The Data Protection Act 1998
B21 Commercial confidentiality and national security
B22 Where to send the form
B23 Next steps

B1 Applicant's name, site name and type of licence you are applying for

B1.1 Give the name of the applicant

This must be the same as the name given at A3, A4, A5 or A6 (as appropriate) in part A.

B1.2 Give the name of the site

Please use one part B for each site.

B1.3 Licence type you are applying for at this site

New full abstraction licence for a previously exempt abstraction

Fill in this form (part B) together with part A.

New transfer licence for a previously exempt abstraction

Fill in this form (part B) together with part A.

Variation to an existing abstraction licence to add a previously exempt abstraction

Fill in this form (part B) together with part A.

If we believe you have incorrectly applied for a certain type of licence we will contact you to discuss any changes to your application.

B1.4 When did you first start abstracting water in respect of this application?

Please give the year when you first started abstracting.

B2 Existing licence number(s)

You do not have to fill this out if your application is for a new licence. In this case go to B3.

B2.1 If you are applying as part of the transitional regulations to change an existing licence, what is your current licence number?

B2.2 Please give a brief outline of your proposal

B3 Other applications

B3.1 Do you expect to carry out further abstractions (planned abstractions) at this site in the future?

No Go to B4.

Yes Go to B3.2.

B3.2 Have you made a separate application for a planned abstraction at this site?

No Go to B4.

Yes Go to B3.3.

B3.3 What is the reference number for your planned abstraction application at this site?

B7 Transfer of water to maintain a water level

B7.1 Do you transfer water to maintain a water level?

No Go to B8.

Yes Please provide details below of:

- What the levels are
- If/how they vary on a seasonal basis
- How they relate to the quantity of water abstraction
- How you control water levels

Continue on a separate sheet if necessary and provide a document reference

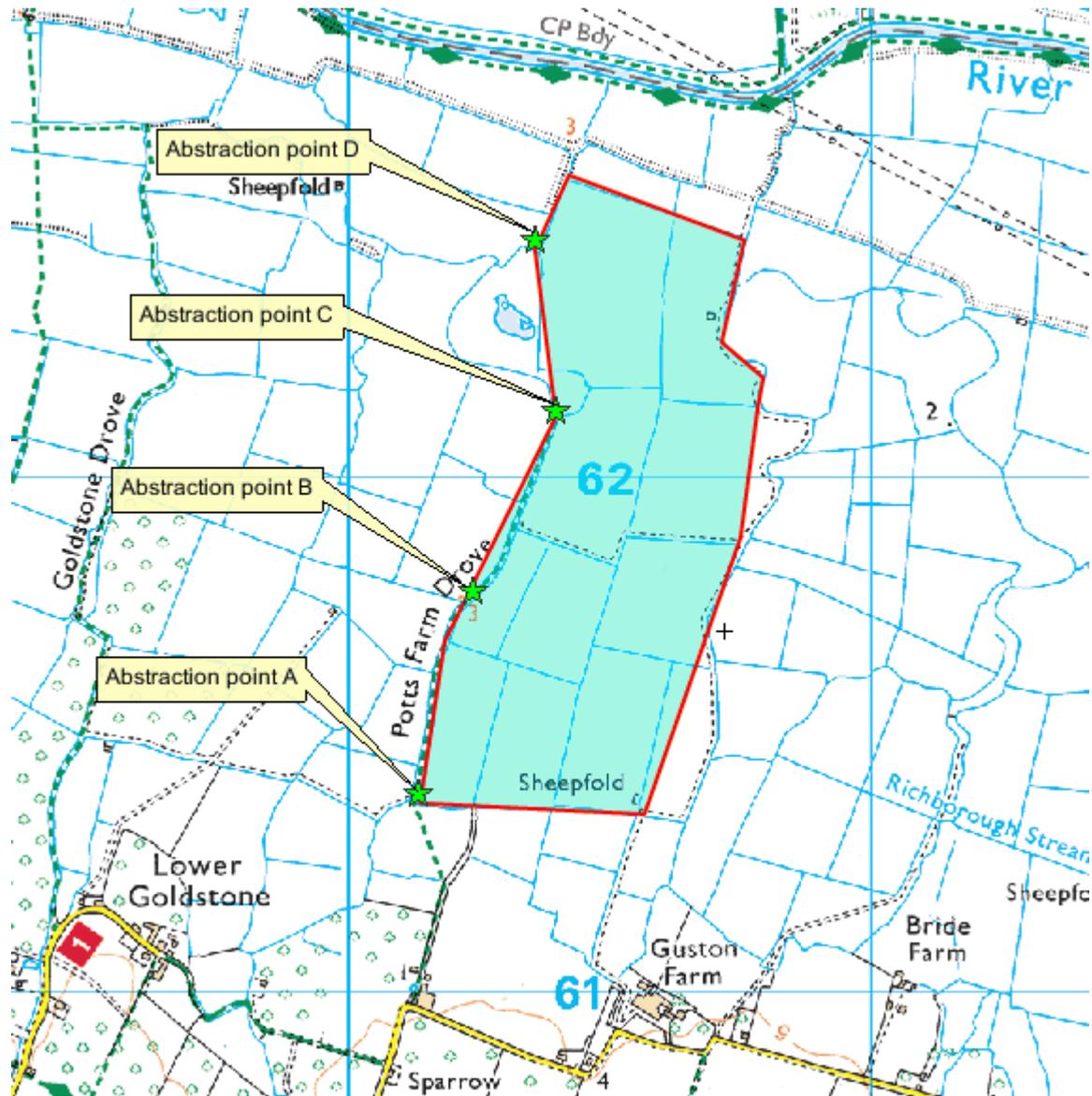
New Authorisations Applications

- Adequate applications:
- Making the application on the correct forms – WR344 & WR346.
- Fully completing the forms.
- Paying the correct application fee.
- Providing sufficient evidence of abstraction during the 7 year qualifying period.
- The agency may, following receipt of a valid application, require the applicant to submit any further information or reports that it considers necessary to determine that application.
- Long Duration Licence Request.

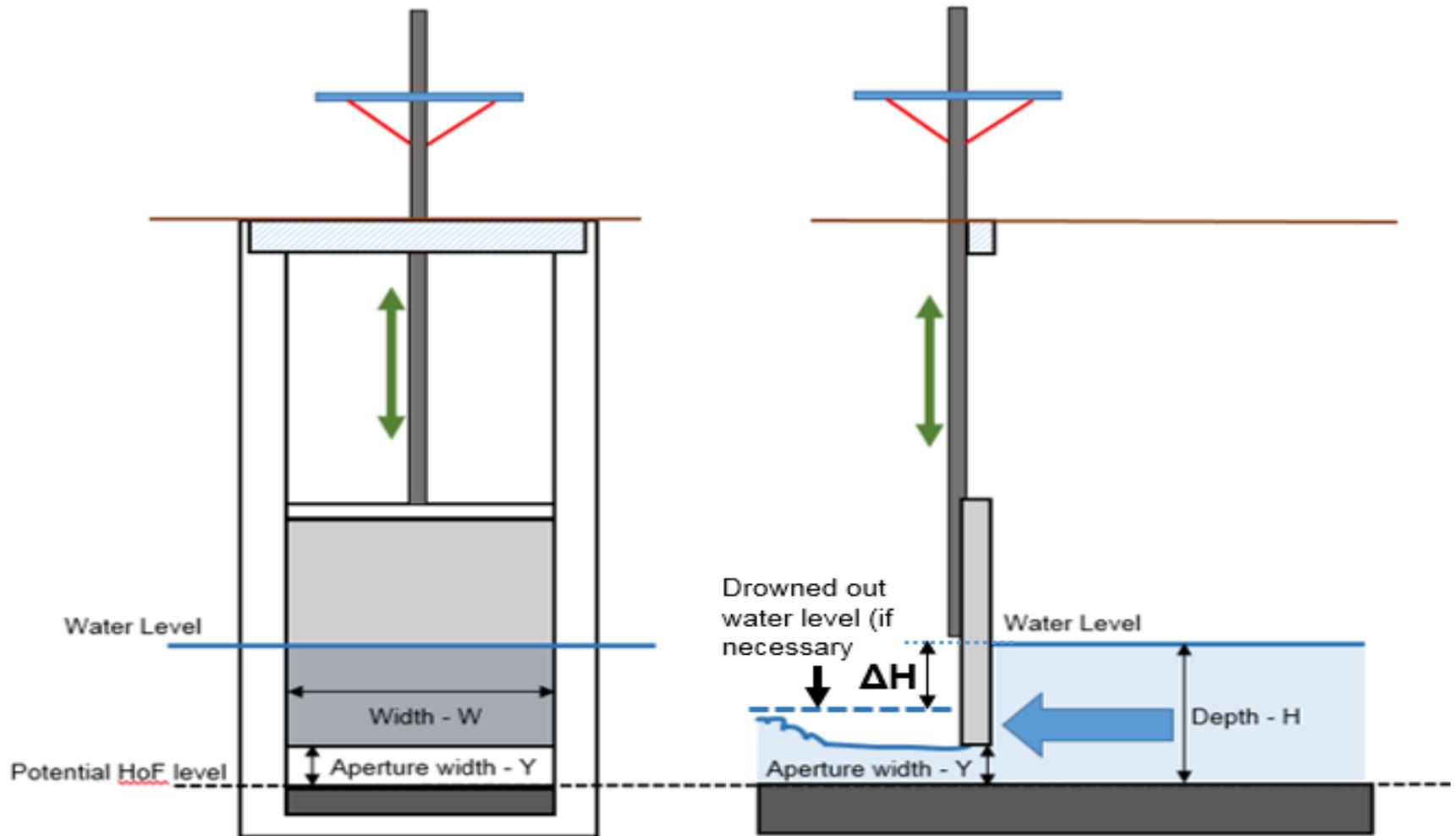
Description of Abstraction Activity

- I have been operating wetland support to this area for a number of years, beginning in 2013. I take water out of the main Potts Farm Drove which eventually flows in to the River Stour at the end of my land at four points, which I have marked on the map as Point A – D, with the relevant grid references.
- I have an area of 49 hectares of land (also shown by the map, that I flood each year primarily in the summer months (March to October), see enclosed water requirements sheet.
- Above are the details of the sluices I use. Key dimensions I have are that I open the sluice to a maximum of 15 cms each, the sluices are all 1.5 metres wide and the water behind the sluice tends to be around 2 metres in depth when I open the sluices (measured with a gauge board at relatively high flows). I will open the sluices until the wetland is submerged and then I close the sluice. I usually aim for a water depth of approximately 0.3m, measured by gauge boards at various parts of the site. This can take a number of days but the total number of days works out at around 5 days per year, which includes top ups when levels are appearing low.

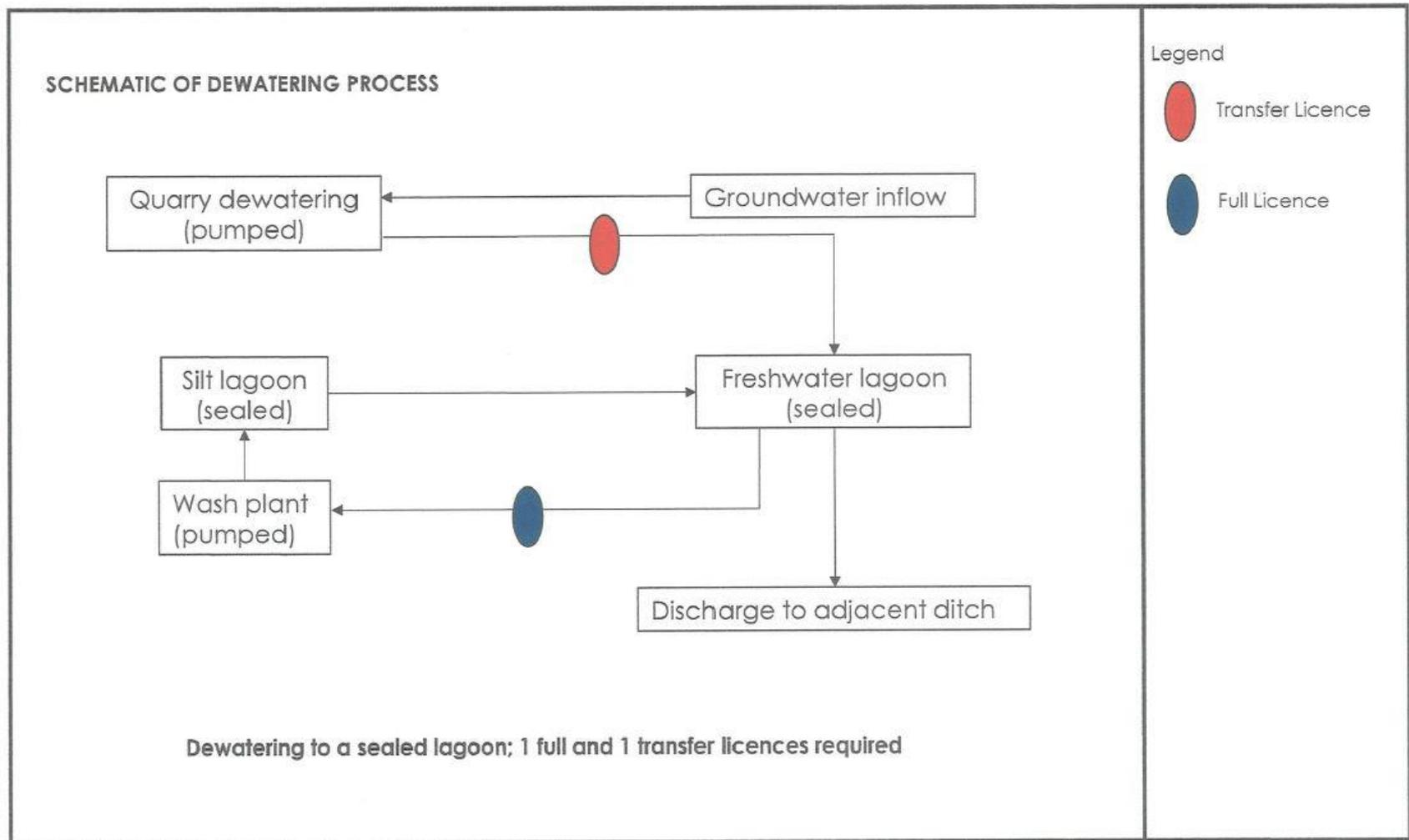
Map of Abstraction



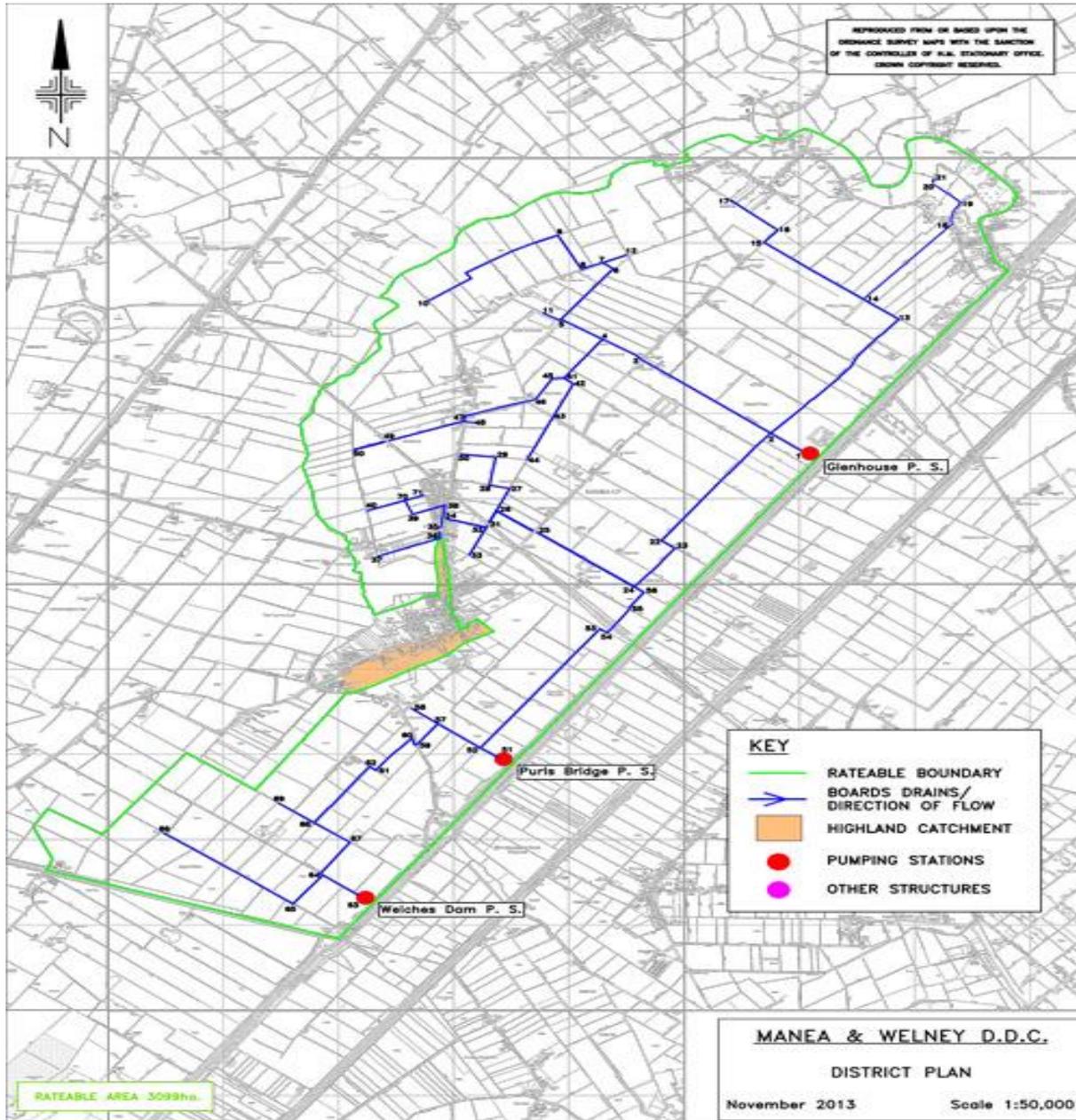
Abstraction intake drawings



Other example schematics



Manea & Welney IDB



Pevensey Levels NNR Gate, Dam, Ditch numbers and management compartments

Map key

- ★ all structures UPDATED
- Ditch number
- Gates
- Dams
- Management compartment
- Fence number
- National Nature Reserve



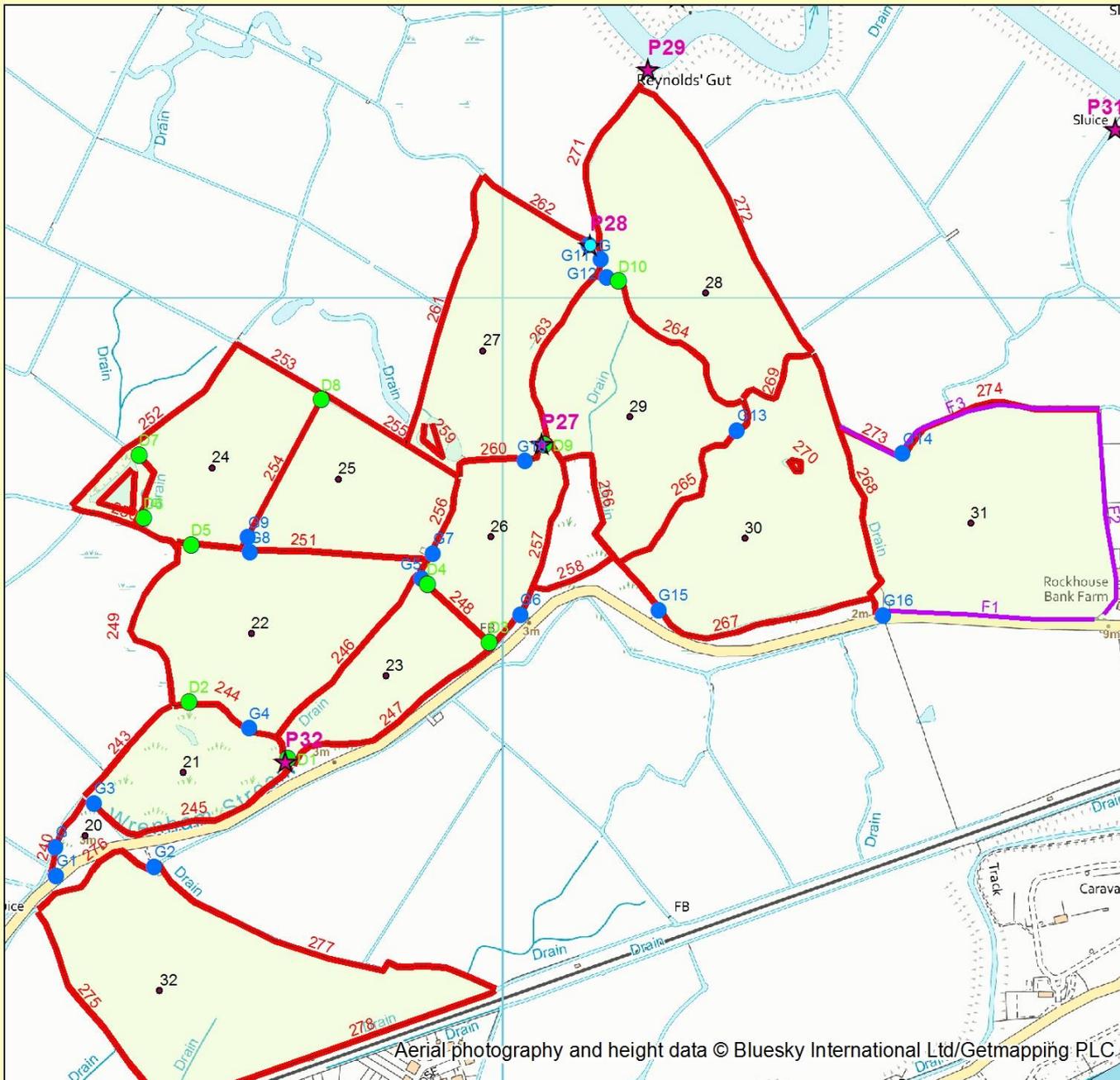
Scale (at A3): 1:4,500

Map produced by Lou Parkinson
Senior Reerve Manager]
Date:21/08/18. Map Reference:PLmgt



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New Authorisations Applications

- What's not necessary:
 - Long and complex legal documents – e.g. title deeds or land lease documents on Right of Access.
 - Long and complex calculations of leat or channel flow.
 - Extensive water use justification including research papers and economic benefits.

Rights of Access

- If the applicant has ticked the box on the application form to indicate they have a right of access we will usually be able to accept this.
- We will not routinely ask wetland operators to submit a map with the boundary of their access rights marked on it with their application, but if in doubt about their access rights we can request a marked map and a copy of the document giving them those rights¹, such as:
 - a deed of grant or lease of rights; or
 - a conveyance, lease or tenancy agreement.

NB: Due to the long-standing nature of some of these activities, our usual approach will be to accept the ticked box for 'Rights of Access' as sufficient for NA licensing purposes.

Form Guidance WR367: New Authorisations evidence guide

New Authorisations evidence guide

Guidance notes



Primary evidence	Can it go on the licence? <small>i.e. the meter itself</small>	Additional supporting evidence in combination with primary evidence	Strength	Does this provide sufficient evidence for quantities;		
				Instantaneous	Daily	Annual
Meter readings	✓	None	L	✓	✓	✓
		Photos of the meter	M	✓	✓	✓
		Details of the meter	H	✓	✓	✓
		Certificate of the meter	H	✓	✓	✓
		Signed statement/site records	H	✓	✓	✓

Tools Fill & Sign Comment

Sign In

Export PDF

Adobe ExportPDF
Convert PDF files to Word or Excel online.

Select PDF File:
Evidence of abstraction guid...
1 file / 68 KB

Convert To:
Microsoft Word (*.docx)

Recognize Text in English(U.S.)
[Change](#)

Convert

Physical dimensions of the abstraction intake structure – weir (no control)	✓	None Drawings Photographs Spot flow gaugings Stage discharge equation	L H M H H	n/a n/a n/a ✓ ✓	n/a n/a n/a ✓ ✓	n/a n/a n/a ✓ ✓
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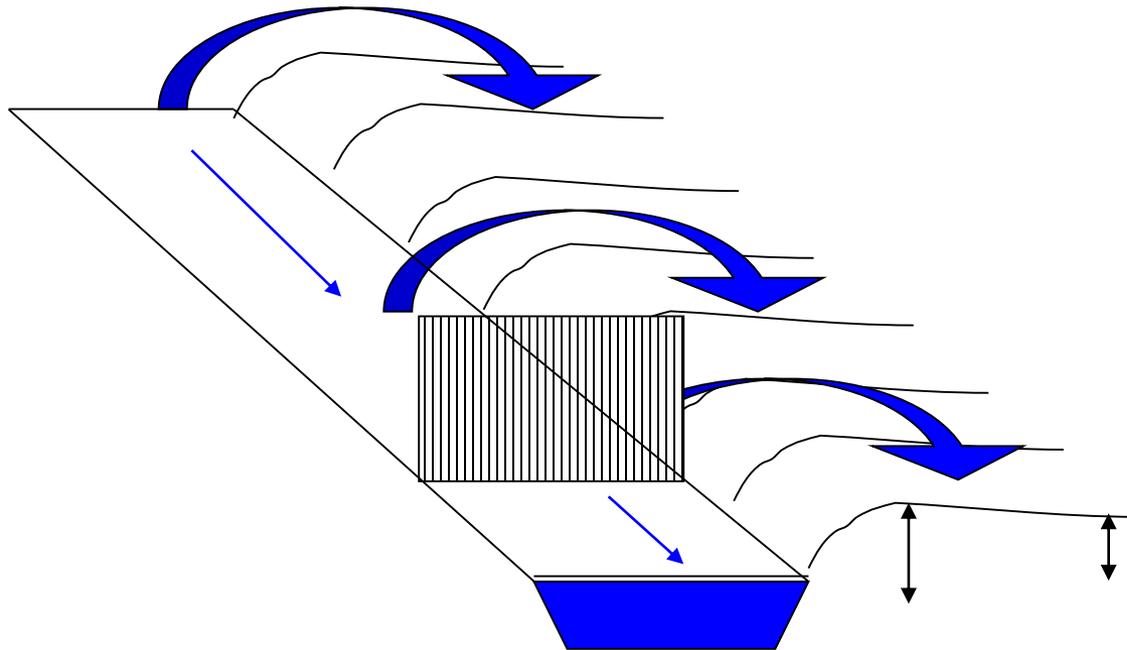
Physical dimensions of the abstraction intake structure – sump	✓	None Drawing	L H	n/a n/a	n/a n/a	n/a n/a
Flow rates for abstraction equipment	✓	None Usage patterns testimony Usage patterns evidence/site records	L M H	✓ ✓ ✓	n/a ✓ ✓	n/a ✓ ✓
Pump of known capacity	✓	None Pump rating curves and usage patterns testimony Pump rating curves and usage patterns evidence/site records Pump test results and usage patterns evidence/site records	L M H H	✓ ✓ ✓ ✓	n/a ✓ ✓ ✓	n/a ✓ ✓ ✓

Volume Validation Tool

	Units	Crump Weir	Broad Crested Weir	Natural Bed Weir	Flume	Rectangular thin plate weir	V notch	Circular Weir/Partially full Orifice	Pipe (partially full)	Pipe (full)/Siphon: River level above top of pipe	Sluice/ Penstock	Orifice (rectangular)	Orifice (circular)
Breadth (B)	metres	1.20	2.00	6.00	0.50	1.00					1.30	0.50	
Angle (θ)	θ						90						
Sluice Opening (Y)	metres										0.10		
Diameter (D) of Pipe/Orifice or Depth (D) of rectangular orifice	metres							0.50	0.15	0.10		0.10	0.12
Depth of water (H) above weir crest, upstream pipe invert or sluice.	metres	0.200	0.075	0.040	0.150	0.300	0.250	0.35	0.100		0.350		
Bed condition/type	Smooth/Earth/Grass/ Gravel or Stone			Grass					↓	↓			
Height from water surface to centre of orifice (h)	metres											0.20	0.30
Invert Height of structure above river bed. <i>If abstraction occurs during all river flows, please put zero</i>	metres	0.50	0.45	1.10	0.20	0.40	0.70	0.40	0.25	0.00	0.00	0.40	0.50
Pipe length	metres								100.00	200.00			
Water Head/ Pipe Invert difference (ΔH)	metres	↓	↓	↓	↓	↓	↓	↓	2.00	0.50	↓	↓	↓
Slope	metres/metres								0.02				
Internal Pipe material (i.e. plastic) -	N/A								Plastic				
Roughness Coefficient (Mannings) -	unitless								0.009				
Maximum number of hours abstraction per day	hours	15	10	15	24	12	8	15	24	12	24	24	18
Maximum number of days abstraction per year	days	185	115	20	250	112	145	120	50	118	365	50	90
Max instantaneous flow rate	litres per second	200.000	145.000	115.000	50.000	380.000	45.000	100.000	18.000	32.500	330.000	60.000	10.000
Max Flow - auto calculated	m ³ hour	720.0	522.0	414.0	180.0	1368.0	162.0	360.0	64.8	117.0	1188.0	216.0	36.0
Max Flow - auto calculated	m ³ day	10800	5220	6210	4320	16416	1296	5400	1555	1404	28512	5184	648
Max Flow - auto calculated	m ³ year	1998000	600300	124200	1080000	1838592	187920	648000	77760	165672	10406880	259200	58320

Quick licensing exercises

Exercise 1 – Flood irrigation



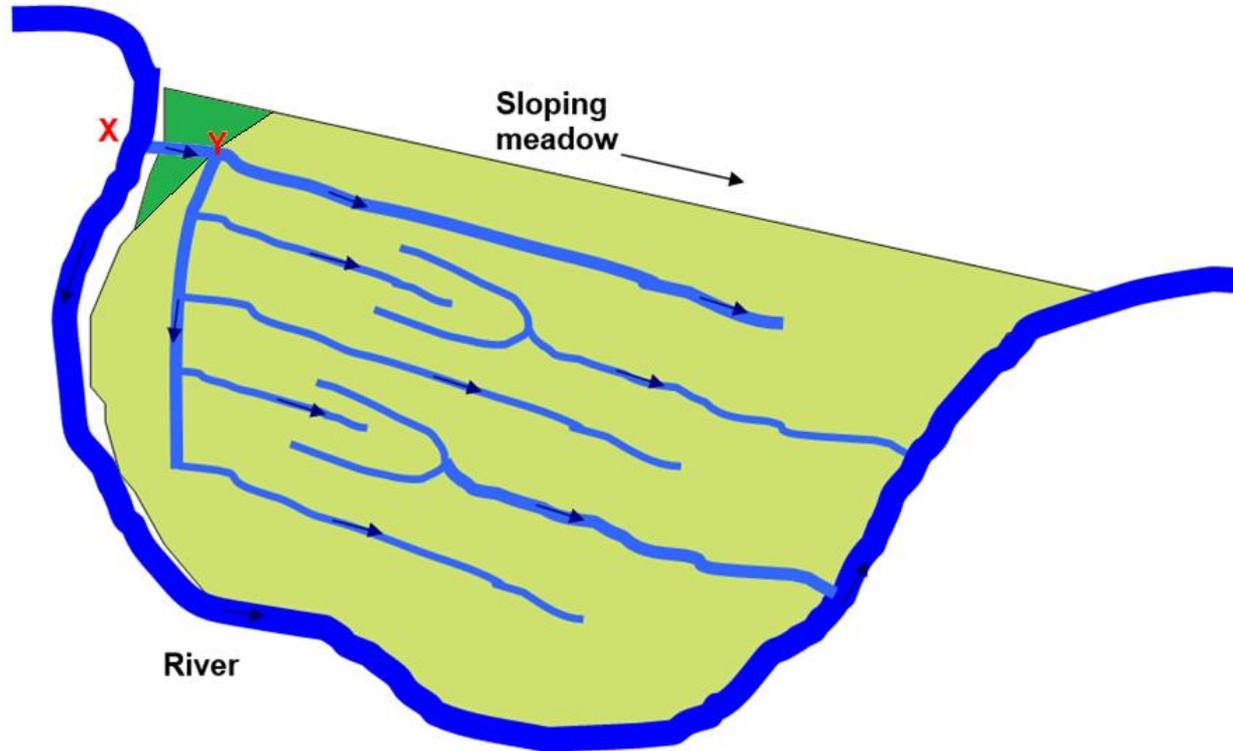
Exercise 1

- 1) Water level rises in the river due to increases in flow in the channel and the natural hydraulic characteristics of the river, water spills over the banks and onto land (this could be an area of grassland which is acting as the natural floodplain). Subsequently, as the flood recedes, water will gradually drain off the land or be retained behind the floodbanks or a combination of the two. No structure in the channel.
- 2) Structure in the channel that is operated to allow the water level to rise and thus spill across the banks into the field
- 3) Structure placed in the channel that is fixed.

Exercise 1 answers

Question	1	2	3
a) Is the river a source of supply?	Y	Y	Y
b) Is the land the same source of supply?	N	N	N
c) Is it an abstraction?	N	Y	Y
d) Is an impoundment taking place?	N	Y	Y
e) Is it licensable? (WRA 1991)	N	N	N
f) Is it licensable? (Water Act 2003)	N	Y	Y
g) What form of new licence is required?	N/a	Full	Full
h) What is the means of abstraction?	N	Sluice/ Gravity	Sluice/ gravity
i) What is the purpose of use?	N	Flood irrigation	Flood irrigation

Exercise 2 – Ridge and furrow water meadow



- Water moves into the meadow through a series of channels.
- As the meadow is sloping, it then flows overland via gravity from channel to channel

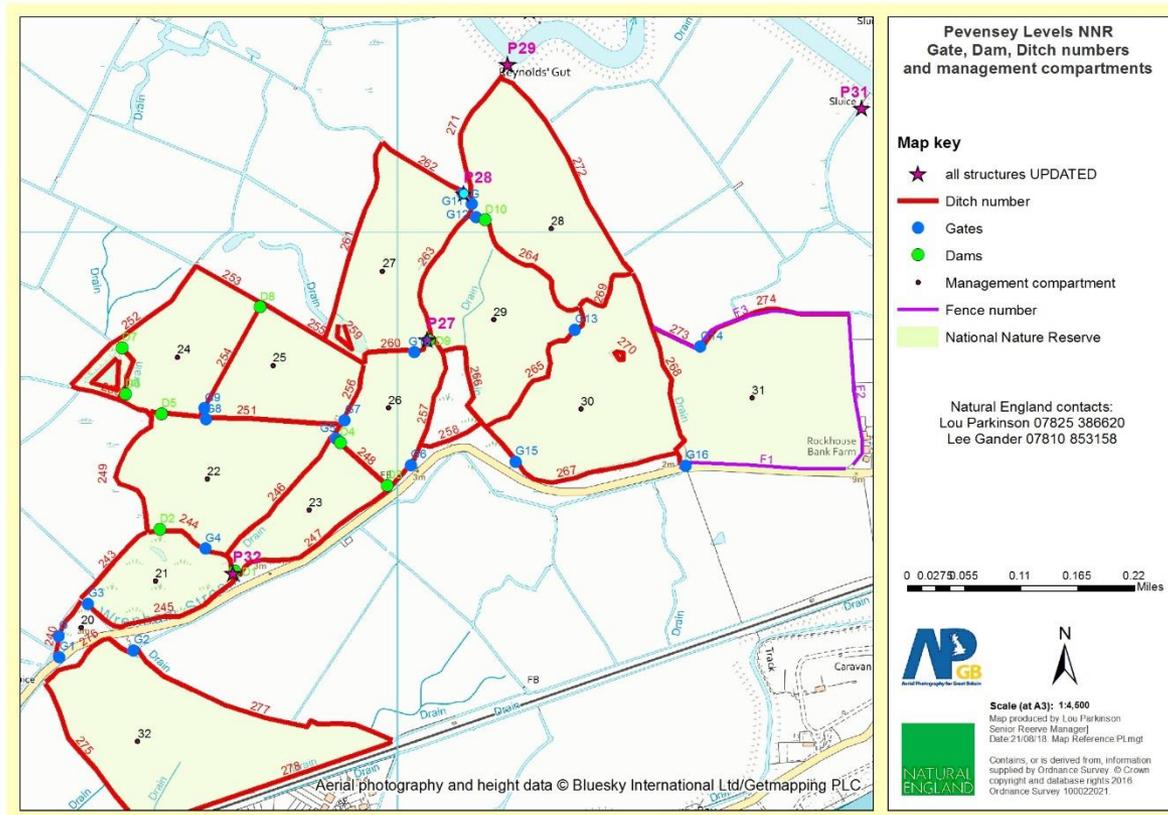
Exercise 2

- 1) Water is taken into a managed wetland system through a series of channels, either controlled or uncontrolled. Water moves into the meadow through a series of channels. As the meadow is sloping, it then flows overland via gravity from channel to channel. Ridge & furrow system with control at X (sluice across the river).
- 2) Ridge & furrow system. No control at X, but control at Y.

Exercise 2 - answers

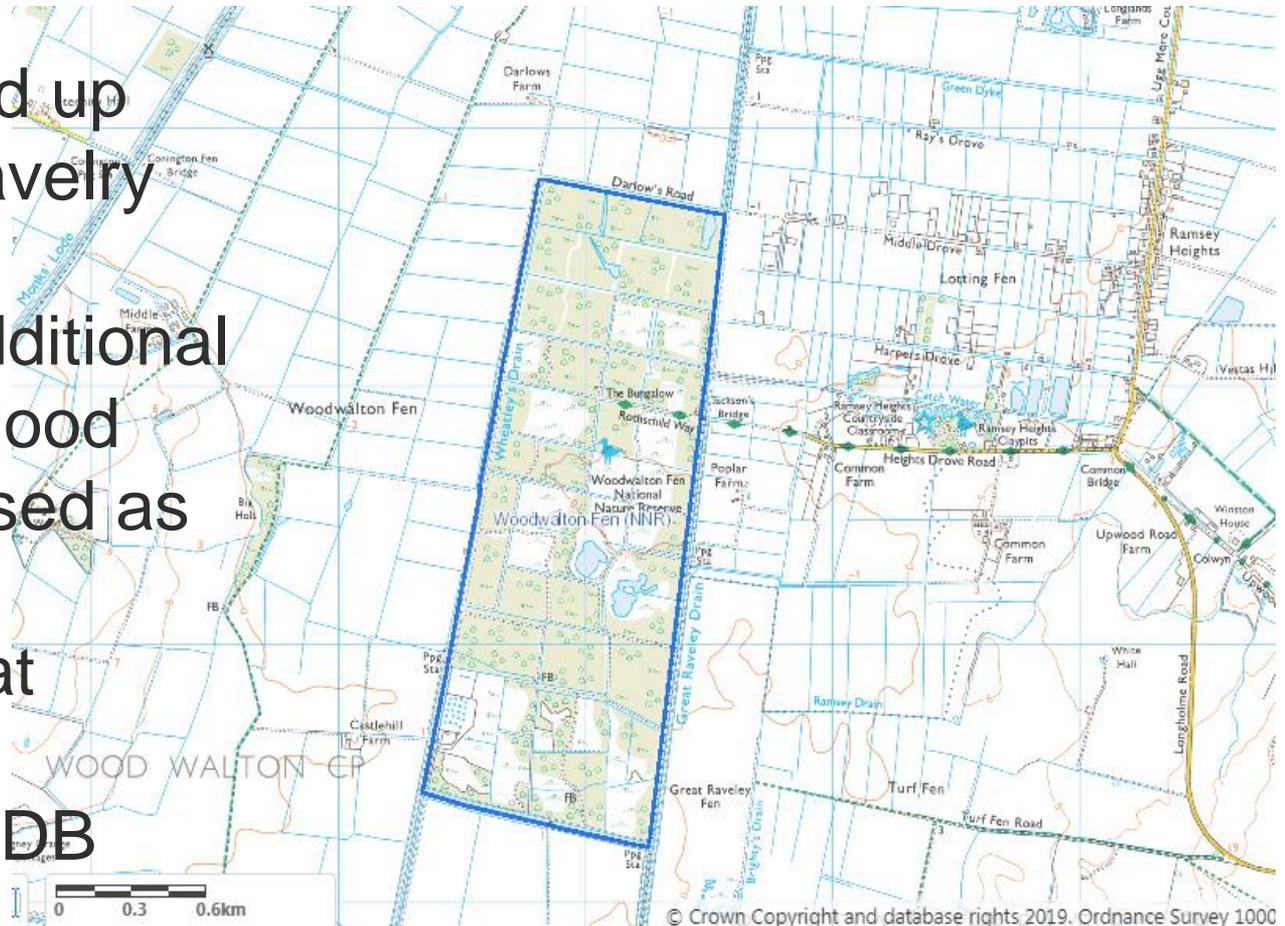
Question	1) Ridge & furrow system with control at X (sluice across river)	2) Ridge & furrow system. No control at X, but control at Y
a) Is the river a source of supply?	Y	Y
b) Are the carriers the same source of supply?	N	N
c) Is abstraction taking place?	Y	Y
d) Is an impoundment taking place?	Y	Y
e) Is it licensable? (WRA 1991)	N	N
f) Is it licensable? (Water Act 2003)	Y (at point X)	Y (at point Y)
g) What form of new licence is required?	Transfer – see note below	Transfer
h) What is the means of abstraction?	Gravity via sluice	Gravity via sluice
i) What is the purpose of use?	Transfer for purpose of supply to a water meadow	Transfer for purpose of supply to a water meadow

Case Studies and Scenarios



Woodwalton Fen

- System topped up from Great Ravelry Drain
- Occasional additional water during flood (sometimes used as flood storage)
- Levels in Great Ravelry Drain controlled by IDB

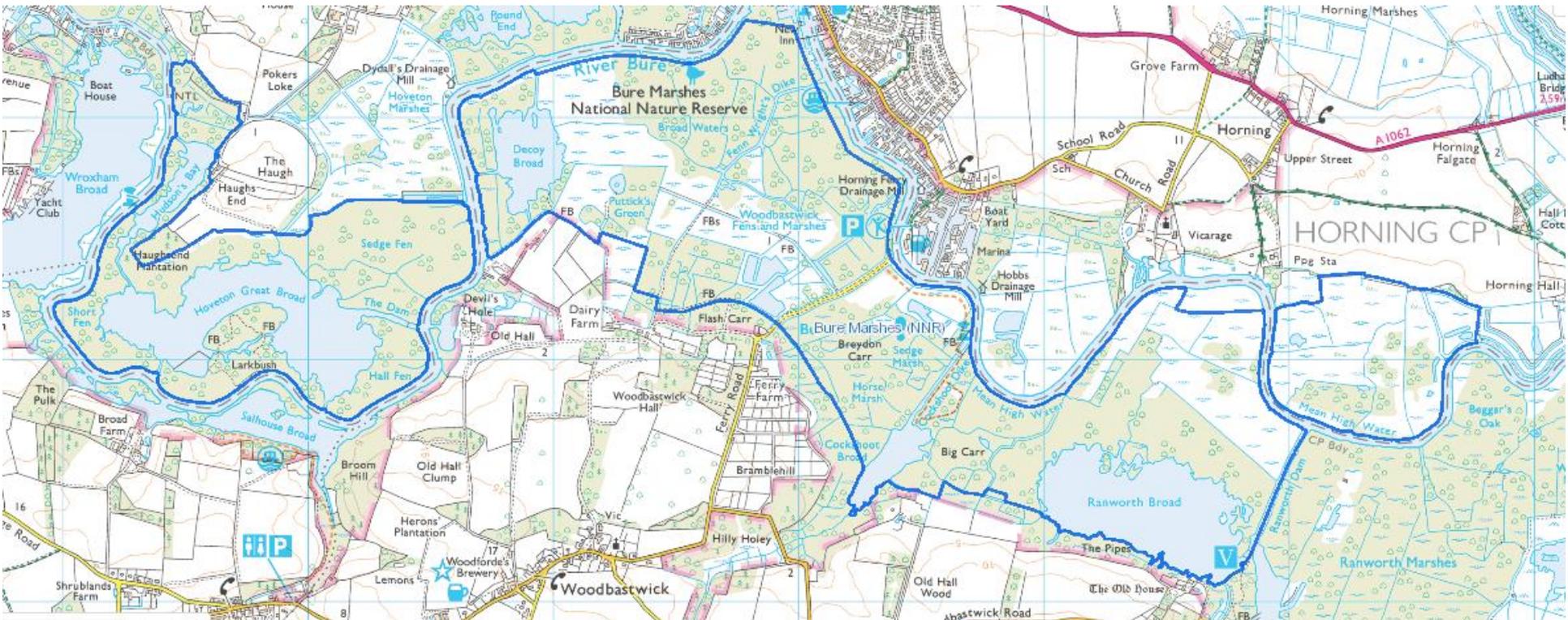


Woodwalton Fen Questions / Key Points

- Transfer licence likely to be required transferring water from the Great Ravelry Drain into the system.
- Volume calculation: Input the relevant dimensions into the validation tool, along with the maximum length of time abstraction has occurred over the year.
- Existing licences in place and all from same source – can the licences be amalgamated along with new point?

Bure Marshes

- Fed by water from River Bure via channels, culverts etc. Gravity flow.
- Levels match those in river – changes in river level reflected by changes in water levels in marshes
- Limited controlling structures (if any – some impoundment?)

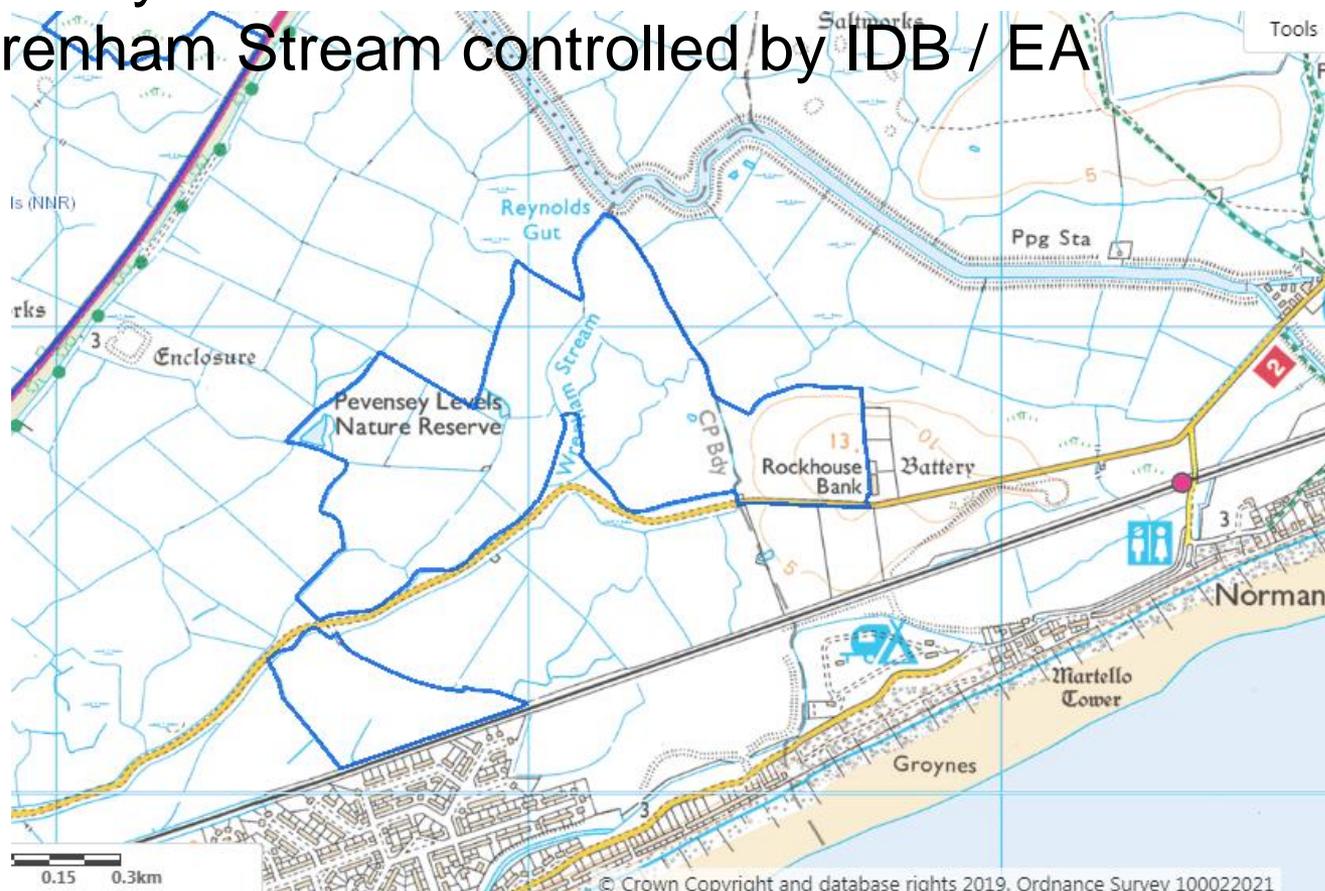


Bure Marshes Questions / Key Points

- Is this abstraction? Part of wider hydrological system. Historical peat extraction & water level management, but fundamentally forms part of 'natural' fen / Broads / floodplain system. Would be wetland naturally.
- Do we need to apply for a licence under new authorisations?
- If yes, how do we quantify abstraction volumes?

Pevensey Levels

- Fed by water from Wrenham Stream via pipes or penstock. Gravity flow.
- Levels in Wrenham Stream controlled by IDB / EA



Pevensey Levels NNR Gate, Dam, Ditch numbers and management compartments

Map key

- ★ all structures UPDATED
- Ditch number
- Gates
- Dams
- Management compartment
- Fence number
- National Nature Reserve

Natural England contacts:
Lou Parkinson 07825 386620
Lee Gander 07810 853158

0 0.0275 0.055 0.11 0.165 0.22 Miles

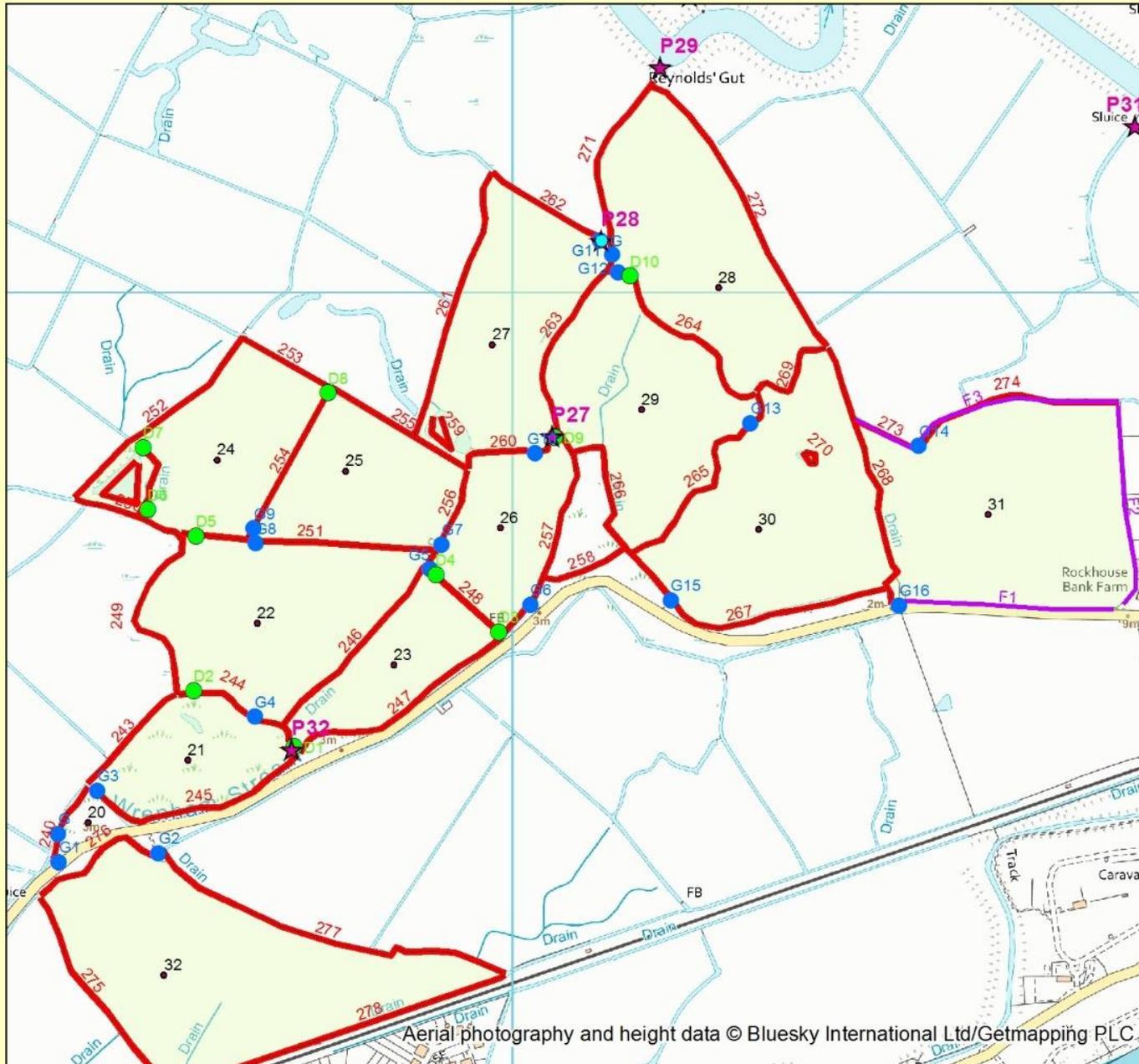


Scale (at A3): 1:4,500

Map produced by Lou Parkinson
Senior Reeve Manager]
Date:21/08/18. Map Reference:PLmgt



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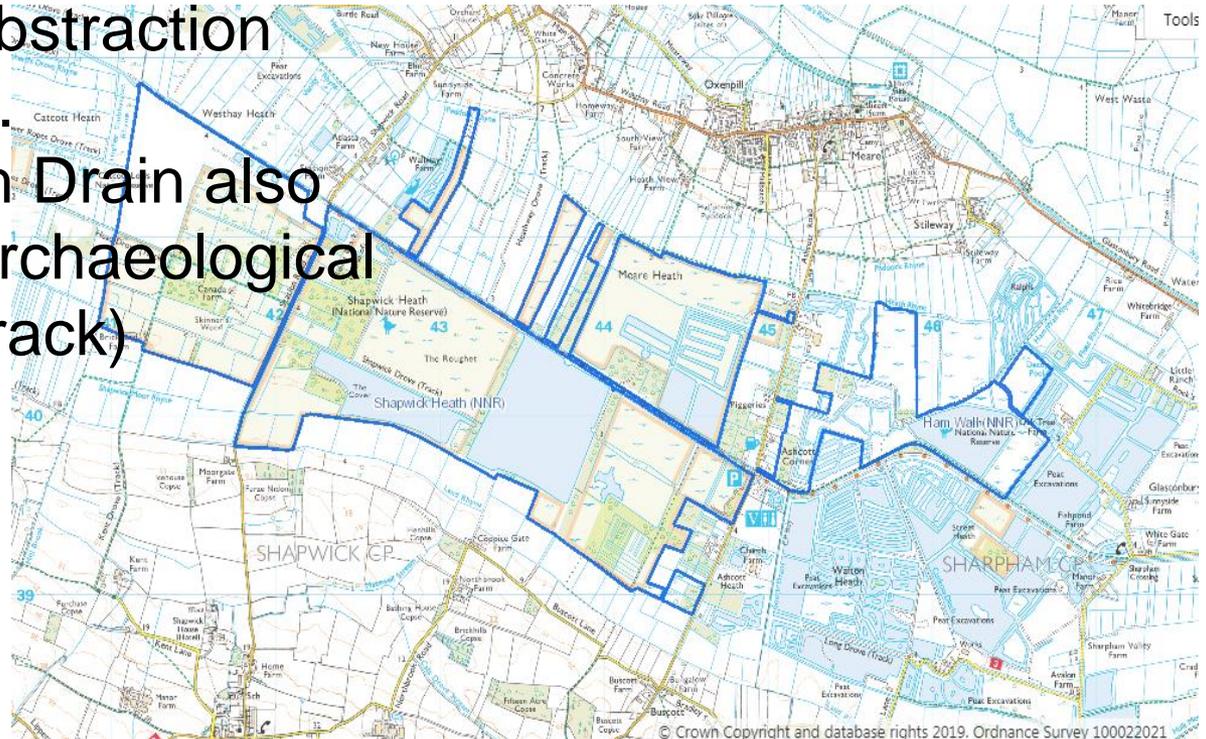
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Pevensey Levels Questions / Key Points

- Primary abstraction (from Waller's Haven into Wrenham Stream) is controlled by EA / IDB – P29
- Water flowing from Wrenham Stream into reserve is a secondary abstraction under the legislation? – P27
- If so, NE does not require an abstraction licence?
- If we do need an abstraction licence, measurement of volumes given access issues?

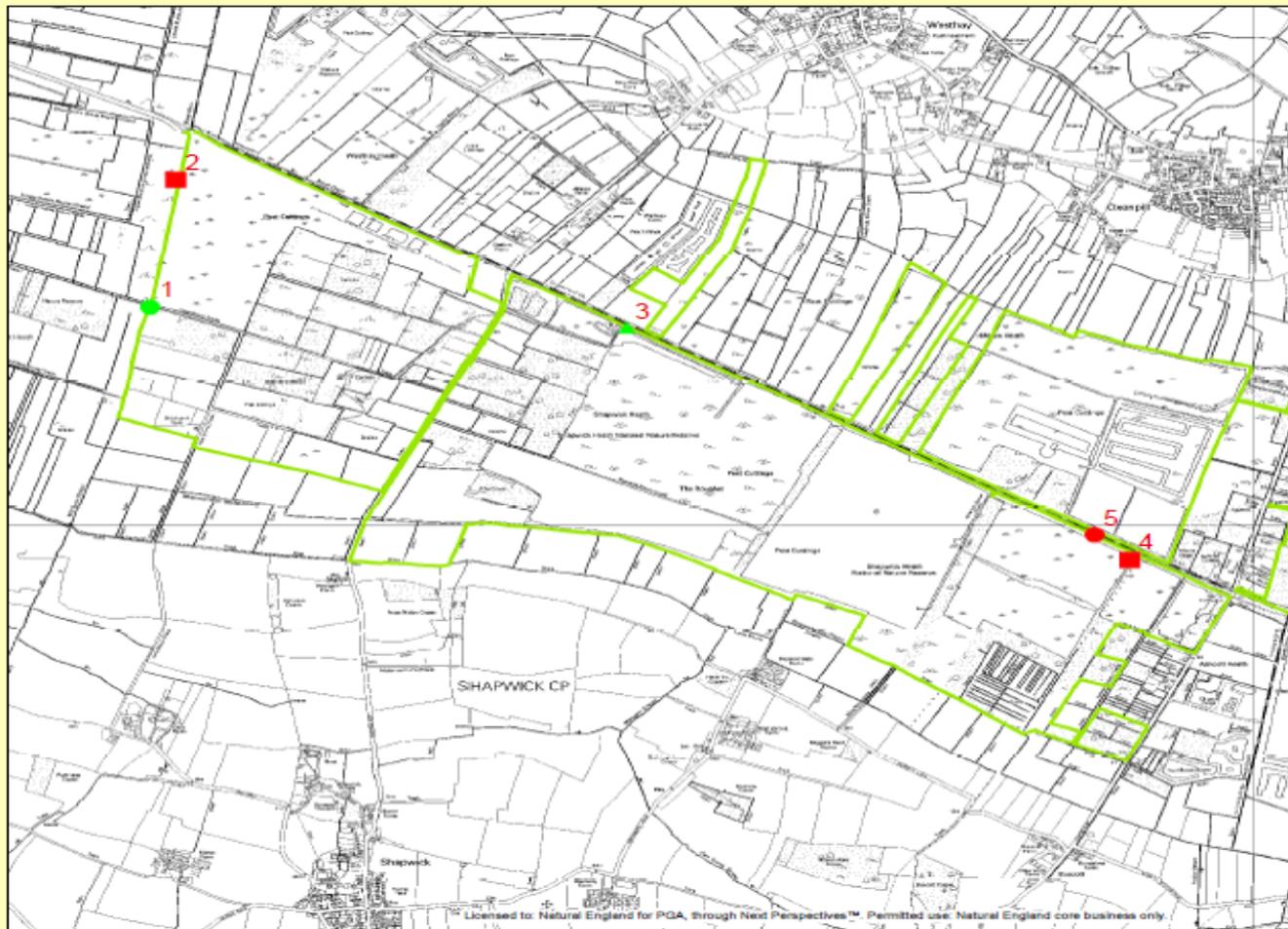
Shapwick Heath

- Two abstractions (from Black Ditch (1) and South Drain (3)) controlled by NE. Two sources so assume two abstraction licences required.
- Water from South Drain also helps conserve archaeological feature (Sweet Track)



Shapwick Heath Questions / Key Points

- Water from South Drain (point 3 on map) is via a pipe. Water can flow in either direction, or neither, depending on relative water levels. How do we calculate volumes for an abstraction licence?



National Nature Reserves Somerset Abstraction Points

Legend

Type

- Intake
- Outlet
- Pumped Intake
- Valve
- National Nature Reserve



Scale (at A4): 1:22,432
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Map produced on DDMM2011 by
GI and Analysis Services Team,
Natural England
Map Reference:

FAQ's

- When is an abstraction licence required?
- How many applications do I need to submit per site?
- Can I get support in completing the application?
- How do I calculate / demonstrate the volumes I've abstracted historically?
- Do I need to do additional flow measurements?
- Will I definitely get a licence as a result of submitting an application?

Wetland Applications – Summary

- A separate application/fee for each abstraction from different sources of supply into a Managed Wetland area – contact us if in doubt.
- Water Level Management Plans.
- Details of interactions / operational agreements with other bodies – e.g. The EA, IDB's, RSPB, NE, Wildlife Trusts
- Physical dimensions / drawings / photos of intake structures.
- Details of how volumes have been calculated – Agency's validation tool / other.
- Information on operations – months of operations / opening of sluices – links to WLMPs
- Detailed maps showing movement of water.
- Rights of Access.

New Authorisations Contacts – who can help?

- ‘New Authorisations Hotline’;
 - Our NCCC is the initial point of call, and a system is now in place to improve the speed that you are put through to a specific Permitting Officer in NPS.
 - Email: enquiries@environment-agency.gov.uk
 - Telephone 03708 506 506
- NPS Structure;
 - NA Centre Leads within each Permitting Centre.
 - 1 or 2 Sector Leads – specialists for each sector.
 - Permitting Officers with specific NA training.

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