

Suffolk Holistic Water Management Project

Felixstowe Peninsula Landowner Group meeting 25th September 2017 at Kirton

CONFIDENTIAL NOTES

NB. Any notes made public or given to the consultants will have names redacted and only reference letters used

Attendees:

Tim Darby	ESWAG	TD
Jane Burch	Suffolk County Council (SCC)	JB
Giles Bloomfield	East Suffolk IDB	GB
Paul Bradford	project consultant	PB
John Patrick	Assistant to ESWAG	JP
Jonathan Thompson	Environment Agency (EA)	
David Langmead	Landowner (ex Lawson land)	DL
Alan Parken	Landowner	AP
Stuart Hollingsworth	Landowner	SH
Tim Jolly	Landowner	TJ
Will Jolly	Landowner	WJ
James Foskett	Landowner	JF
David Adams	Landowner	DA
Andrew Williams	Landowner	AW
Sally Watts	Clarke & Simpson	SW
Ian Taylor	Landowner	IT
Neil Smith	Landowner	NS

Apologies

Bruce Kerr
James Wood, Bidwells
John Symes

1. Review of notes of last meeting

No issues arising not covered within the agenda.

2. Update on Environment Agency meetings

JB reported on meetings with EA and NE to discuss environmental issues relating to the project, notably the need for freshwater outflows at 2-3 points along the estuaries to satisfy Eel Regulations and Water Framework Directive. Letter outlining their advice appended to these notes.

Having written to Dr Therese Coffey MP (in her role as Defra Minister) about the abstraction licence charges, JB, TD and PB were invited to a meeting in London with her and senior Defra/EA officials. The outcome is that as part of the Abstraction Reform Plan (see <https://www.gov.uk/government/publications/water-abstraction-plan-2017>), our project will be a pilot for testing a range of scenarios – including a 'high flow' charging regime; possible links to Anglian Water and potentially aquifer recharge. The project will need to deliver environmental enhancements too – e.g. enhancing eel and fish passage and enhancing low flows. Details to follow.

Licence application to be progressed asap with IDB as applicant.

3. Flow & Salinity tests

PB reported on the flow and salinity testing resulting from new telemetry on the V-notch weir at Kings Fleet. It has been a very dry autumn and flows have been minimal until 31/10/17. Recent rain/snow has enhanced flow to about 45 l/s.

Salinity in the sump and overspill around 800 $\mu\text{S}/\text{cm}^3$. This follows tidal activity and as such will not be suitable for irrigation use. This water can be separated and used to support environmental flow requirements.

No concerns re salinity issues within the Kings Fleet itself.

Data being gathered will be used to update EA flow model.

4. Project Proposal Report

TD thanked the participating landowners for their contributions which has allowed John Patrick to assist ESWAG in developing more detailed project proposal and costs – report circulated ahead of the meeting.

██████████ and ██████████ have withdrawn from active involvement in the project.

TD to chase James Wood, Trinity to confirm their position.

JP talked through the report, confirming the project is primarily about winter water and thus landowners' need to have adequate on-farm storage capacity to benefit. Water available is minimum 600 m^3 in a dry year with up to 5 million m^3 in a wet year. Ideally reservoirs should have capacity to take 2- year requirement to utilise what's available and the pipeline will be future-proofed to allow possible expansion of the scheme.

The IDB would be responsible for the licence and all pumping activity, with the landowner company responsible for the pipeline and water sharing.

DL, new to the project as buyer of Lawson's land is to build a reservoir and would like to increase allocation to 80-100 MI if possible.

Grant applications – for the pump/pipeline and for farmers wanting to put in new reservoirs, closes 30/06/2018. TD has been in touch with David Sillett, RPA who is aware of the project. No application can be made until abstraction licence and planning consents in place. The landowner company will also need to be set up before acting as the applicant.

It was agreed that background work, such as archaeological and environmental assessments should be co-ordinated across all the project aspects (including on farm reservoirs) but that planning consent and grants applied for separately.

IDB will be the licence applicant. EA advised that the volume applied for will be minimum of 600 m^3 but utilising the Defra pilot and licence for taking more in high flow conditions.

In order to satisfy environmental requirements it is proposed to have freshwater flows at Falkenham and an enhanced flow at Laurel Farm/Felixstowe Golf Club sluice. Power is available here. GB investigating details and costs of making the scheme fully eel/fish friendly as appropriate – investment likely to be best directed at Falkenham..

The project will ensure the opportunity for Anglian Water to take excess water remains open. Discussions are ongoing with AW about a possible new storage area or transfer to/from Alton Water. The pilot may also allow testing of aquifer recharge and enhanced trading with AW. The aim is to minimise pressure on the AW Mill River licence. AW unable to commit capital investment until 2020 at earliest.

The risk of failing sea wall was discussed. It was suggested that any 'profit' from the scheme could be utilised for upgrades. GB suggested the walls currently provided approx. 1 in 75 year standard of protection.

Concern was expressed about the failing sluice gate at Kings Fleet and what would happen should this fail – allowing the sea into the marshes. JT believed that EA had previously poured concrete into it to stop it up, but GB said this was not the case.

JT to discuss with relevant EA flood asset management colleagues (this is an EA asset) and confirm EA's plans to decommission this structure.

JP updated the group on the latest proposed pipeline route (map circulated). There may need to be some minor alterations to avoid significant archaeological features. Work ongoing re easements and crossing of EAOW pipeline route.

JP talked through the cost scenarios, with/without grant and utilising IDB's ability to take out public sector loan or landowner company taking commercial rate loan. The three factors that most influence the costs are grant/IDB involvement and loan period. All other variables make little difference.

In the preferred scenario of a landowner company responsible for the pipeline and the IDB responsible for the licence and pumping, the sums would need to include a payment to the IDB for licence charges, investments in costs and environmental obligations.

GB to confirm sensible figure for these charges as that in the report looks a little low.

The group accepted the proposals and fully supported further progress to fine tune the details.

Three key pieces of work needed to progress very quickly:-

- Formation of landowner company
- Licence application
- Background work need to support planning consents and grant application.

Landowners will need to supply significant information on water use, cropping, reservoirs....

TD stated that ESWAG cannot commit his time to undertake all this detailed work and that the landowners will need to fund a Project Manager – see working-group meeting discussions below.

An Agreement will need to be drawn up detailing trading within the Landowner Company, what happens on sale of land and future rights for others who have given easements, etc (e.g David Adams). The new Project Manager will work with relevant expertise to develop this.

5. Future meetings

No date was set for the next meeting until further progress has been made.

Following the main meeting the **Working Group Members** met to pursue certain issues raised at the meeting.

The working group comprised TD, JB, JF, TJ, WJ. GB.

It was agreed that if he was willing to do so, John Patrick would be the ideal Project Manager.

POST MEETING NOTE: John Patrick has agreed to this role subject to discussions around terms and remuneration.

Key tasks for Project Manager in next few weeks:-

- Confirm pipeline route and provide map to JB for archaeological input
- Confirm reservoir sites
- Set up Landowner Company
- Obtain information needed for licence application to proceed (justification)

- TD to get Barker Goetlee to work on Company set up.

GB will check whether using IDB powers he can assist reservoirs through the EIA/Planning process. It may need reservoirs to be registered as flood risk assets.

GB to co-ordinate meeting between project and IDB (Phil Camamile, Richard Pipe) to confirm level of annual funds needed to support IDB's involvement.

JB to confirm meeting early in January with EA re Defra pilot details and licence application.

POST MEETING NOTE: Meeting re Abstraction Pilot confirmed for 08/01/2018 @ 0930 at EA office. Following this meeting the EA Pilot Lead Katie Steed and Paul Hickey, EA Head of Water, will be accompanied on a site visit to the Kings Fleet.

Natural England and Environment Agency Position Statement

on Proposals at Felixstowe Peninsula

Background

As part of the Deben Holistic project NE and the EA have been supporting and providing significant technical input into the work being undertaken to look at the possibility of diverting land drainage water, which is currently pumped to the Deben estuary by the local IDB, and using it primarily for agricultural irrigation in the local area. This work is seen as a pilot to highlight the challenges and solutions to such a scheme such that lessons can be shared at other locations.

For details of the scheme please refer to: - <http://www.greensuffolk.org/flooding/hwmp/>

Environmental Context

The Deben Estuary lies between the Orwell Estuary to the South and the Alde – Ore Estuary to the north. The estuary extends for approximately 12km in a south-easterly direction from the inland limit, adjacent to the towns of Woodbridge (TM260490) and Melton (TM285505), to its mouth to the north of Felixstowe. The Deben Estuary is a mesotidal coastal plain estuary that includes extensive mudflat and saltmarsh areas.

It is designated as the Deben Estuary Site of Special Scientific Interest (SSSI) important for its populations of overwintering waders and wildfowl and also for its extensive and diverse salt marsh communities. The site is of national significance for its wintering population of Dark bellied brent goose, Redshank, Shelduck and Black tailed godwit.

The site is also designated as the Deben Estuary Special Area of Conservation (SPA) for its wintering birds, including Avocet and Dark bellied brent goose under the Birds Directive giving it European protection.

The Deben Estuary is also a Ramsar Convention site for Dark bellied brent goose and the invertebrate *Vertigo angustior*.

The boundary of the Deben Estuary SSSI is coincident with the SPA and Ramsar boundary

In light of these designations and also other relevant legislation any activity has to be assessed to ensure it will not result in a significant impact on the sites integrity and associated features (birds and saltmarsh), complies with the requirements for Transitional waters under the Water Framework Directive and meets the needs of the Eels (England and Wales) Regulations 2009 (Eel Regs).

Justification

It is the duty of the Environment Agency to ensure that the use of water resources is correctly managed and so any request to take water needs to be supported with a justification of need and evidence of efficiency as well as sustainability considerations.

Natural England is responsible for ensuring that England's natural environment is protected and improved, including designated sites. Natural England seeks to **maintain and improve the condition of protected sites by working with** landowners, land managers and partners.

All public bodies must take reasonable steps to conserve and enhance the special features of SSSIs when carrying out their statutory duties or giving others permission for works, and must comply with the Habs Regs in consideration of SPA.

NE&EA advice at this stage

A new pre application for the proposal should be resubmitted clearly stating who will be abstracting, the volumes and timings, justifications and proposed mitigation.

Mitigation could comprise of the construction of a small outfall thrust bored through the sea wall and out into the estuary (length to be determined by topography.) This will be constructed with a diameter, sump and flap valve in such a way to ensure that 5l/s passed through the pipe at times of low tide. Another option would be to have a small pumped discharge providing an attractant flow for Eels but this would then require a larger flow to be discharged at Falkenham (to meet WFD requirements)

All other flows which are not abstracted for irrigation may pass through the marsh drainage system to Falkenham and be pumped out there. Again there is a need to maintain a flow of 5 l/s (and so any abstraction at Kings Fleet will need to have a HOF to ensure this happens. This discharge of water should be tidally driven, to emulate natural systems.

One way, to assist in loss minimization and max benefit to maintain channel morphology, would be to discharge water 3 hours either side of low tide. This could be with a dedicated pump and simple timed control set at 24 hour 50min 30 sec interval or with a dedicated digital tidal clock for this location.

Or this discharge of water could be done simply by a gravity outfall and a tidal flap. Similar examples have been installed at: Minsmere RSPB, Fritton Lake and Old Hall Marshes RSPB in Essex.

The applicant should revisit their understanding of the quantities of water actually available (we believe it is nearer 600MI rather than 850 MI). They may also wish to consider requesting a winter only licence to significantly reduce the costs as we believe the amount of additional water available in the summer is not likely to be significant. Whilst we accept that one of the intentions of this pilot was to test the possibility of high flow abstraction year round, unfortunately the current legal framework for abstraction charges does not currently facilitate this without significant cost.

Reasons for this guidance

Site Integrity

By maintaining the total number of fresh water flows to the Estuary, ensuring some fresh water flow to the salt marsh and the physical improvements to the salt marsh; site integrity is considered to be maintained and potentially improved.

Transitional Waters (for full technical detail please see P Willett 20/9/2017)

This assessment shows that in order to meet the requirements set out in the Task and Finish guidance we need to maintain either 10l/s at single discharge point (Falkenham) or 5l/s at two discharge points (Falkenham and Kings Fleet)

Eels

The surrounding habitat of Kings Fleet is ideal for eels and the downstream migration of silver eels needs to be addressed. Throughout the moving of water, the Eel Regs need to be adhered to.

The construction of a small outfall to the saltmarsh will allow movement of eels in the Kings Fleet system reinstating something that was present until 1998. This will also allow a flow of 5 l/s to be maintained to meet the WFD requirements and provide an important freshwater signature into the saltmarsh. Alternatively a small attractant flow could be used at Kings Fleet with 10l/s being discharged at Falkenham.

Birds

The Project's bird survey showed that relatively few birds used the Kings Fleet freshwater flow, suggesting that the flow was of limited importance for birds. Usage may be affected by the fact that flow is generally pumped at night often vigorously. Recreational disturbance is also likely to be a factor in the day given the popular footpath on the river wall at Kings Fleet. The flow is likely to have an influence that extends beyond just when freshwater is flowing (such as gradients in salinity affecting prey diversity & prey biomass).

With limited freshwater flows on the Deben any proposed removal of the flow completely at Kings Fleet allows little precaution re birds and is inconsistent with approach regarding compensatory flows on Suffolk estuaries.

The needs of WFD and Eel Regs mean that a fresh water flow at Kings Fleet will be maintained and so mitigates any possible impact for birds.

Saltmarsh

It is important to maintain a small freshwater output here in order to support the good ecological condition of the neighbouring saltmarshes and the species they support (including birds), maintaining salinity gradients and maximising potential ecological niches.

As it stands the existing pumped freshwater is thought to be exacerbating saltmarsh deterioration. A gravity outfall or smaller attractant pumped flow would be far less energetic, reducing direct damage. It would also be tidally-linked, this would mean that there would not be a reduction in the number of freshwater flows into the estuary. The exact positioning of such an outfall would need to be discussed with NE so as to avoid any negative effects on the saltmarsh, but it is thought that there would be some leeway and it would not necessarily need to be located adjacent to the existing IDB pump/structure.

This work could be made part of a saltmarsh recreation project using soft revetment to encourage accretion and saltmarsh development and protection of river wall (saltmarsh as natural capital) in the Kings Fleet embayment. Faggoting could possibly tie in with new outflow. Therefore there are opportunities to develop this as a saltmarsh restoration project with the Deben Estuary Partnership to have multiple environmental benefits.

Abstraction licence

Any new licences will be time limited. This site is within our East Suffolk Abstraction Licensing Strategy, so the maximum duration licence will be to 2026.

Time limited licences have to meet our three tests of renewal in order to be renewed on the same terms. The criteria are:

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

Any new surface water licences will need to have a Hands off Flow (HoF) to protect the ecological needs of a river at low flows. Our Hydrology team will advise on the HoF required during the pre-application stage of a new licence. This will also take into account any competing demands for water.

Within any new applications for water, you will need to submit a full justification for the requirement for this 'new water' alongside any existing licences (cropping and business plans) and measures that you will take to use the water efficiently. We will then consider this at a farm scale.

Due to the proximity to the coast, a new abstraction licence here will need to be compliant to the Eel Regs. We suggest a fixed intake, so it causes less ecological disturbance and that the required eel screening can be provided. If the abstraction is only during the winter, (November to March), the screen size required is likely to be 9mm. If this abstraction is all year, then 2 mm screening will be required.

Abstraction Charges

There is currently no flexibility in the legal system for charging for abstraction. This project has clearly shown that there is a need for this and we hope this will be addressed in due course. In the meantime, in light of the significant costs associated with a year round licence, the fine grade of eel screening likely to be required at the intake and the limited availability of surplus water during the summer, we would recommend you consider a winter only abstraction licence.

We hope the above is of assistance

J Thompson EA

Emma Hay NE

16/11/2017