1. Review of notes of last meeting

Following introductions TD reviewed the actions arising from the last meeting. Landowners had confirmed quantities of water required – totalling 740 ML + possibility of 2 further requests– new owners of Lawson’s land at Waldringfield and Waldringfield Golf Club. This would bring total demand to over 800 ML. **TD to confirm asap.**

<table>
<thead>
<tr>
<th>Ref</th>
<th>Landowner/user</th>
<th>Demand ML</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>E</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>G</td>
<td></td>
<td>145</td>
</tr>
<tr>
<td>North of H</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>K</td>
<td></td>
<td>150+</td>
</tr>
<tr>
<td>M</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>O</td>
<td></td>
<td>20?</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>835</td>
</tr>
</tbody>
</table>

There is a further possible interest for another 35 ML
2. Revision to Option C

Following last meeting, to reduce costs by removing the pipeline spur O-H and demand centres G & N, Mott Macdonald had rerun the model. The optimum route had altered from the original Option C route – details in the report available from www.greensuffolk.org/HWMP/Felixstowe

Revised costs (on same basis as original Option C excluding on-farm reservoir cost)
- Option C : £7 million
- Removing O and H and moving K nearer to E = £6 million
- Also removing G & N = £5.7 million

TD explained that latest conversations suggest that original demand centres are likely to be required and that this revision may not now be valuable. He thanks Motts for their work, which was funded by Anglian Water and Suffolk County Council. 

JB confirmed that there is no budget available for Motts to undertake further work of this nature.

The route is optimised to avoid major roads and sensitive environments and minimise road/watercourse crossing, etc (see constraints map below)

Motts costings include all project development, easements, consents and are based on water company standards.

JF suggested that most of the pipeline route is on land owned by the landowners wishing to participate in the project, thus reducing costs of easements.
3. Alternatives to route across David Adams’ marshes

DA has indicated that a route directly across his marshes is not acceptable and thus two options were discussed (see map):

1) A pipeline route alongside the Kings Fleet itself.
2) Using the Delph alongside the river walls up to Kirton Creek with pipeline routing directly across towards Bucklesham/Waldringfield.

Option (2) could reduce the pipeline costs by some £1-1.5 million. This option would provide a much larger resource as it would include the Falkenham pump catchment. However, this presented significant concerns about salinity. There were also concerns about the river wall and what would happen if this was compromised by a surge. Using the Delph would make repairs difficult.

Work by Government of New South Wales has indicated that salinity levels (electro-conductivity (EC)) above 2.00 ds/cm are likely to affect the yield/quality of potatoes and that other crops are likely to be even more susceptible. Measured levels in the Falkenham catchment frequently exceeded this level – see graph below.

It was agreed that the cost of further investigations into the various issues/risks associated with this option was high and the risks too great.

There are possible concerns about archaeological interest with option (1) but these can be overcome by having an archaeologist on site during pipe laying. **This is the preferred option and the one that will be further investigated.**

TJ questioned whether salinity was an issue during dry periods with any pumping of drainage water. GB confirmed that rather than using the pump as at present, maintaining a high level and skimming water off the top with a floating pump would help reduce problems. Sensors could also be employed to cut off flows if high levels of salinity were measured.
4. Alternative costing

Mott Macdonald’s project costs are based on water industry standards. The landowners interested in the project have sought alternative costs from Prime Irrigation, providing agricultural standards.

Figures provided by GP (based on the original Option C route) were based on the following assumptions/standards:
- Annual abstraction from the Kings Fleet - 740 ML
- Fish and eel passes as required
- PVC pipe (c.f. Mott’s used ‘PE’ pipe).
- Pipe diameters of equivalent sizes to Mott’s work)
- 2 x 55kw pumps each discharging daily 3 ML at pressure of 110 m
- Variable speed pump controls and telemetry
- 20% contingency

The pipeline would cost circa £1.3 million and the pumps circa £350k. This compares with Motts figures of some £5 million.

The following are not included in Prime’s figures:
- Easements (especially where crossing land not owned by the landowners involved in the project)
- Environmental surveys/EIA
- Archaeologist on site during construction

To better compare like for like with MM’s work, PB/JB will prepare a table for direct comparison including all costs. However, it is clear that using agricultural standards will significantly reduce costs.

GB urged caution about procurement rules and use of ‘quotes’ if the IDB is to lead the project. The figures supplied will be purely illustrative.
In terms of timescale, it was felt that 12-18 months will be needed for further project development, including governance; obtaining abstraction licence and EIA, with approx. 6 months needed for construction. This would mean no water would be available until winter 2019.

5. Environment Agency licence fee charges

The current model being considered is for the IDB to be the abstraction licence holder. PB has been seeking clarification from the EA of what fees will be charged. He has provided evidence to the EA that an exemption to charges is possible – but this is not finding favour!

Based on 600 ML used, all winter abstraction would cost about £2600 whereas the same quantity across the whole year could cost up to £26k. Currently PB/JB are negotiating with the EA for a reasonable charge allowing water to be utilised when available.

6. Anglian Water’s interests

Steve Moncaster had been unable to speak to the EA ahead of the meeting and as such felt his input would be limited. Via SJC he confirmed that AW remain interest in the possibility of any spare water and any pipeline route should consider links to AW’s pipe. AW is also interested in further considering aquifer storage of water – but this is dependent on EA support. PB indicated the other strand of the HWMP looking at managed aquifer recharge is struggling to progress due to lack of support from the EA.

7. Project Governance

As well as the option discussed at the last meeting, whereby the IDB takes out a public works loan and acts as the water company (with input from ESWAG to manage day-to-day sharing of available water), the landowners have also considered forming a company and taking out a loan themselves. It was felt that they are unlikely to get such a favourable loan rate and without the IDB’s powers would have more issues with consents and operation of the scheme. Thus this option is unlikely to be considered further.

There is a clear need for ESWAG to draw up some draft rules for how the water will be allocated, particularly in a dry year when resources are below demand levels.

ESWAG/IDB also need to set out clearly the rights when land is sold.

Land agents (Clarke & Simpson and Bidwells indicated willingness) will be commissioned by ESWAG/the landowners to draw up draft governance rules for further discussion. These will be a critical part of getting landowner commitment.

8. Next Steps

Confirm pipeline route and associated land ownership. TD/JF

Provide a clearer picture of total cost and timescale for the agreed route, using agricultural standards but including all costs. PB
Landowners to confirm their commitment to the project and make small financial contribution to the work needed to develop governance model and other investigations.

ESWAG (on behalf of landowners) to commission work on governance model. TD/GB

PB/JB to continue discussions with EA re abstraction licence charges. The licence will be pursued once landowners have committed to the project.

A further meeting will be held on Friday 7th July at 9.00 am (TD to confirm venue)