Addendum to Flood Risk Assessment

Ian Ellis

From: Trevor <trevor@northeastlindsey-idb.org.uk>
Sent: 16 February 2015 14:18
To: Ian Ellis
Subject: Re: PA/2014/1360 Barton Wren housing devt

Hi Ian

I confirm that the route of the watercourse as shown on your plan is correct.

Regards
Trevor

From: Ian Ellis
Sent: Monday, February 16, 2015 10:09 AM
To: Trevor
Cc: susan.wilson@naturalengland.org.uk
Subject: RE: PA/2014/1360 Barton Wren housing devt

Hi Trevor

Darren has called me this morning and confirmed the route of the watercourse at Barton which currently discharges into the existing pit as shown on the attached plan and then outfalls into the estuary.

Please could you confirm this is correct?

Please note I have copied Susan Wilson in at Natural England so she is aware of the existing situation as she has raised objection to the proposals including a comment regarding the drainage links from the site to the local area.

I trust the above is in order and hope to receive your confirmation in due course.

--
Kind Regards

Ian Ellis IEng MCIHT
Tel: 01924 844080 Mob: 07825 854393
Principal Engineer
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From: Trevor [mailto:trevor@northeastlindsey-idb.org.uk]
Sent: 12 February 2015 15:27
To: Ian Ellis
Subject: Re: PA/2014/1360 Barton Wren housing devt

HI Ian

I have arranged for my works supervisor (Darren Scott) to confirm the drainage system in this area, and he will give you a ring tomorrow.

Regards
Trevor

From: Ian Ellis
Sent: Thursday, February 12, 2015 1:47 PM
To: Trevor
Subject: FW: PA/2014/1360 Barton Wren housing devt

Hi Trevor

I thought I should send you the email below form Natural England and in particular the extract regarding the route of the watercourse.

I have spoken to Susan at Natural England who said a colleague had spoken with the Sailing club who told them they were not aware of any water course entering the lake and they believed the lake was fed by natural springs.

Are you able to provide any further information about the existing watercourse and its route from the outfall point of the onsite balancing lake to the Estuary?

I would be very grateful for any information or please call me if you prefer to discuss.

--
Kind Regards

Ian Ellis IEng MCIHT
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From: Wilson, Susan (NE) [mailto:Susan.Wilson@naturalengland.org.uk]
Sent: 12 February 2015 13:28
To: Ian Ellis
Cc: Andrew.Taylor@northlincs.gov.uk; Quick, Fiona (NE)
Subject: PA/2014/1360 Barton Wren housing devt

Dear Mr Ellis

Thank you for your email of 29 January with the drainage information.

The four points in my letter related to the requirement for a Habitats Regulations Assessment, we are therefore unable to consider withdrawing our holding objection until we have seen the HRA.

Just for information, the aerial photograph that you sent which showed the route of the IDB drain into the Humber via the sailing club pit did not appear to match up with information supplied to us by Humberside Sailing Club. As you will need to provide information on drainage for the HRA it will be useful to speak to the owners of the relevant pits about drainage in this area.

I hope that this is useful.

Regards

Susan

Susan Wilson

Lead Adviser

Sustainable Development, Yorkshire and Northern Lincolnshire Team

Please note that I work Monday to Thursday.

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We are here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

In an effort to reduce Natural England's carbon footprint, I will, wherever possible, avoid travelling to meetings and attend via audio, video or web conferencing.

Natural England is accredited to the Cabinet Office Customer Service Excellence Standard

Ian Ellis

From: Trevor <trevor@northeastlindsey-idb.org.uk>
Sent: 05 February 2015 09:41
To: Ian Ellis
Subject: Re: 8075 - Barton Upon Humber

Hello Ian.

I refer to our conversation yesterday and confirm that the agreed run off rate from the site is 140 lit/sec. The Board agreed a run off rate into their system of 4 lit/sec and based on an impermeable area of 35 hectares this results in 140 lit/sec. That agreement was made in 1992.

As this is an outline application the Board will condition the application as follows.

1. There shall be no increase in the agreed discharge of 140 lit/sec from the lake into the open drainage system, and:
2. The capacity of the lake to accept run off from the proposed development and the method/design must be discussed and agreed with the Board at an early stage and a written consent issued prior to works commencing.

You will appreciate that at the time I made the original planning comments (major infrastructure works may be required) I had not had site of the drainage strategy. The Board still reserve the right to charge the developer for any drain improvements that may be required but this will form part of the discussions at a later stage.

Regards
Trevor

Trevor Vessey
Chief Executive
North East Lindsey Drainage Board

From: Ian Ellis
Sent: Friday, January 30, 2015 3:55 PM
To: Trevor
Cc: Keely Bonser
Subject: RE: 8075 - Barton Upon Humber

Thanks for the response Trevor

I appreciate the meeting offer but as a consultant, fees are always involved and it can make it difficult to attend any meeting without prior agreement from our clients. I will discuss this with them and let you know ASAP. However I trust you appreciate that we are only at the outline planning stage at the moment and we would like to agree the principles of the scheme including the drainage strategy rather than a full detailed design so although a meeting would be very useful it may be more appropriate to hold this meeting when and if we secure outline planning permission and a full design is necessary.

Notwithstanding the above we have received a couple of holding objections to the initial planning submission (from the EA and Natural England) and I am preparing an addendum to our FRA/SWMP which will pull together all the salient points which I hope will satisfy the consultees. Although I appreciate you haven't raised a formal objection the EA have stated they require confirmation from the IDB that you are satisfied with an agreed discharge rate.

I know the previous discharge consent issued by the EA for the site was a maximum discharge rate of 140 litres per second and maximum volume of 12000m3 per 24 hours and although I understand this consent may have been

revoked in 2013 the physical flow controls on the lake have been restricting the flow off site to these parameters since 1993 when the original consent was issued and are still in place to the present day. I appreciate you have said major infrastructure improvements will be required to the open water courses to facilitate the surface water flow, but I am still unsure why if the flows off site remain the same why are improvements may be required?

However, we won't be able to satisfy the EA without your support and agreement of the discharge rate in principle.

Is there any way we can get to a point of an in principle agreement regarding the discharge rate to allow us to satisfy the EA?

Obviously our recommendation of limiting the discharge into the watercourse to a maximum rate of 140 litres per second and max volume of 12000m3 per 24 hours would be our preference caveated that the final details would be agreed with North East Lindsey Internal Drainage.

I will contact next week once I have had chance to speak with our clients but if you could comment on the principle of the discharge rates and volumes I would appreciate that.

--
Kind Regards

Ian Ellis IEng MCIHT
Tel: 01924 844080 Mob: 07825 854393
Principal Engineer
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From: Trevor [mailto:trevor@northeastlindsey-idb.org.uk]
Sent: 30 January 2015 10:18
To: Ian Ellis
Subject: Re: 8075 - Barton Upon Humber

Hello Ian

Thanks for your email and your comments are noted and will require further research and discussion.

The Board's Technical Advisor involved in the balancing pond design has now retired but is actually at my office on the 11th February for a meeting. He lives in Camdridge so his visits up here are now very infrequent.

There is, therefore, an opportunity on that day for your relevant technical people to meet him and our current Technical Advisor and discuss the proposed development and the effect on the balancing pond. This is a matter that needs resolving very quickly and and I trust that this meeting can be arranged. I suggest 2.30pm as a suitable time.

Regards
Trevor

From: Ian Ellis
Sent: Thursday, January 29, 2015 1:51 PM
To: Trevor

Subject: RE: 8075 - Barton Upon Humber

Hello Trevor

Thank you for the email below confirming the route of the existing watercourse which the balancing lake discharges to. I have confirmed this to Natural England who are currently assessing any water quality issues in the boating lake.

I have also read with interest the comments on the North Lincolnshire Planning Portal from the consultees and in particular the comments received from the EA. Along with Natural England they have formally objected to the application due to the lack of information regarding the Surface Water Management Plan which we are currently assessing. They have also commented that we have no formal comments from the IDB regarding the discharge into the watercourse.

As we discussed on the phone earlier this week it is my understanding that the balancing lake on site already has an extant discharge consent form the EA which allows water (surface and treated effluent) into the watercourse to the north of the site. The consent conditions include a maximum rate at which the water can discharge and also a maximum volume. We understand the maximum discharge rate is specified at 140 litres per second and the maximum volume is 12000m3 per 24 hours.

Our proposals are to drain **only the new surface water** runoff from the site into the balancing lake as it has the spare capacity to cater for the new impermeable areas but not increase the agreed discharge rate and volume at which the water leaves site so in theory we are not changing any of the dynamics and drainage mechanisms off site. I have attached the report detailing these calculations for your information. The foul water is to be taken to public foul sewer in Pasture Lane to the west of the site.

I have seen your consultation on the Portal which have suggested major improvements may be required to the open drainage infrastructure to accept surface water flows. However, if we are not increasing the rate and volume at which the water leaves site as it exists now then is it reasonable that the Developer should improve the off-site facilities?

I am trying to determine the current position of the discharge consent and the EA believe the remit reference is PRNNF09364 but I have been unable to speak to someone there regarding it but we assume the conditions of the discharge consent will not change.

Taking account of the above and attached report are you able to confirm your approval to the extant discharge into the watercourse and if the conditions attached to the consent are not changed then this discharge is acceptable.

I trust the above and attached are in order and look forward to your response in due course.

Please give me a call if you have any problems.

--
Kind Regards

Ian Ellis IEng MCIHT
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Principal Engineer
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From: Trevor [mailto:trevor@northeastlindsey-idb.org.uk]
Sent: 27 January 2015 13:02
To: Ian Ellis
Subject: Re: 8075 - Barton Upon Humber

Hi Ian

In response to your email I confirm that the route shown is correct and as we discussed yesterday.

Regards
Trevor

From: Ian Ellis
Sent: Tuesday, January 27, 2015 10:43 AM
To: trevor@northeastlindsey-idb.org.uk
Subject: 8075 - Barton Upon Humber

Hello Trevor

We spoke yesterday regarding the current planning application at the Wrens Kitchen site in Barton upon Humber and in particular the current EA Consent to Discharge into the IDB ditch to the north of the site and where this watercourse runs.

The extant consent dictates that the flow of site should not exceed a maximum rate of 140 litres per second and the maximum volume to leave site per 24 hours should not exceed 12000m3.

The surface water strategy for the site is to take the additional surface water runoff into the existing balancing lake which has been calculated has enough capacity to take the additional water and the extant discharge rates and volumes are maintained.

I have spoken to Natural England who have asked for confirmation of the existing route of your ditch which I have indicatively shown on the attached Google View.

Please can you confirm this is the correct route or if different please can you indicate this on the view.

I trust the above and attached are in order, and hope to hear from you soon.

--
Kind Regards

Ian Ellis IEng MCIHT
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Principal Engineer
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17 February 2015

ian.ellis@sandersonassociates.co.uk
By Email only

Our ref : 8075-001
Your ref : PA/2014/1360

For the attention of Clive Brook

Dear Sir

Addendum to Flood Risk Assessment 8075/DH/001/0 dated November 2014 and Response to Environment Agency and Natural England Holding Objection Objection

In response to the holding objections raised by the Environment Agency and Natural England made on the application for the Outline Planning permission with some matters reserved to erect 300 dwellings, a small commercial development incorporating a 50 bed hotel, 50 place day nursery and small supermarket, a total of 16 fishing lodges set within 11.42ha of public open space for Wren Living at Falkland's Way, Barton upon Humber.

Environment Agency Objection 1
Following discussions with North East Lindsey Internal Drainage Board (IDB), we understand that the applicant has not yet obtained comments from them regarding discharging into their system. We object until an in-principle agreement has been provided by the IDB, with confirmation that they are satisfied with the proposed discharge rate.

Please refer to the IDB response agreeing in principle a maximum discharge rate of 140 litres per second from site.

Environment Agency Objection 2
The submitted Flood Risk Assessment (FRA) briefly discusses the incident in 2007 where the emergency services were called in order to remove water to release pressure in the lake. The FRA needs to consider this further as the balancing lake is proposed as attenuation storage for the entire site, including the implications of the lake were to overtop.

The rainfall which preceded the 2007 incident at the balancing lake was unprecedented and was recorded as the heaviest since records began according to the Met Office website. It is understood that the emergency services were called to the site to remove some of the water to release the pressure in the balancing lake. It is understood following discussions with Trevor Vessey at the North Lincolnshire Internal Drainage Board that temporary Dams were installed in the open watercourse network at this time which stopped the surface water flowing towards Barton upon Humber but redirected the flows to the Humber Estuary. The temporary dams have since been removed and to best of our knowledge there has been no further similar incidents at the site. Although this is no guarantee that the lake would not overtop in the future it is considered very unlikely.

As part of the Flood Risk Assessment and Surface Water Plan prepared for this site the high water levels have ben modelled in the lake and the finished floor levels of the new dwellings and fishing lodges set so they are higher than the predicted 1 in 100 year plus climate change level which are detailed in paragraphs 6.2.4, 6.2.5 and 6.2.6 of the Sanderson Flood Risk Assessment reference 8075/DH/001.01 dated November 2014.

In the unlikely event the balancing lake were to over top the excess surface water would naturally flow towards the Humber Estuary to the north across the fields and lakes. There are existing commercial properties to the north west of the site which may be affected by the exceedance flows if the lake were to overtop.

Although it is considered the existing balancing lake and surrounding banks and embankments has the available capacity to accommodate the additional runoff from the new development site it is recommended that an internal warning system is implemented at the balancing lake to warn the owners of the lake of increasing water levels and if any exceedance flows are imminent as it is a lot safer to control these flows from site rather than allow the lake to overtop naturally. The warning levels and systems to be implemented should be agreed in conjunction with the Local Planning Authority, Environment Agency and Internal Drainage Board.

Environment Agency Objection 3
It is not apparent form the application documents or your website whether application PA/2013/1496 (for modifications to the factory site) has been granted and/or implemented. We request clarification regarding the existing surface water drainage of the wider site, and whether this been accounted for in the surface water calculations.

The current rate and volume of surface water discharging from the Wren Kitchens Complex site is managed and restricted by the balancing lake. As outlined in planning application PA/2013/1496, the balancing lake is proposed as attenuation storage for the modifications to the factory site. As outlined in the Surface Water Drainage Strategy Final Version V1.0 November 2014 Section prepared by Weetwood, Section 4.2.1 states that the surface water drainage strategy for the site takes into account impermeable surfaces from the Wren Kitchens Complex including the modifications to the factory site (as outlined in planning application PA/2013/1496). The above attenuation storage volumes have therefore been accounted for in the proposed surface water calculations for the above development proposals (ref PA/2014/1360), as presented in Section 4.2.5 of the Surface Water Drainage Strategy report.

Natural England Objection 1
Drainage plans which can be used to determine whether the development of the site will result in increased runoff into the Barrow Claypits SSSI which are designated as part of the Humber Estuary SSSI and SPA. These pits already have water quality problem, so any additional drainage form urban areas should be avoided.

The current rate and volume of surface water discharging from site is managed and restricted by the balancing lake and flow control devices which are already present. The new site proposes to utilise the existing balancing lake as attenuation for only the new surface water runoff whilst not exceeding the maximum agreed discharge rate and volumes from site. The maximum allowable peak hour discharge rate of 140 litres per second and maximum discharge volume of 12,000m^3 per 24 hours (as referenced in paragraph 4.2.3 of the Weetwood Surface Water Drainage

Strategy). The new surface water runoff from site will be subject to treatment provided by Sustainable drainage techniques on site to ensure the runoff is cleaned and free of contaminates prior to discharge into the balancing lake and receiving watercourse therefore not increasing the level of contamination from the new site. This is detailed in the Weetwood Surface Water Drainage Strategy Final Version V1.0 dated November 2014 contained in appendix C of the Sanderson Flood Risk Assessment referenced 8075/DH/001/0 dated November 2014.

Natural England Objection 2
Clarification whether there is any linkage between the proposed development site and the Humber Estuary SAC, for example from site drainage.

The balancing lake currently discharges into an Internal Drainage Board ditch to the north of the site which then runs towards the existing Lakes toward the Estuary. The ditch currently discharges into the lake (Barton Wild Foul Lake) then into the Humber Estuary. This has been confirmed by North Lincolnshire Internal Drainage Board (correspondence attached) and is shown indicatively on attached plan referenced 8075-003.

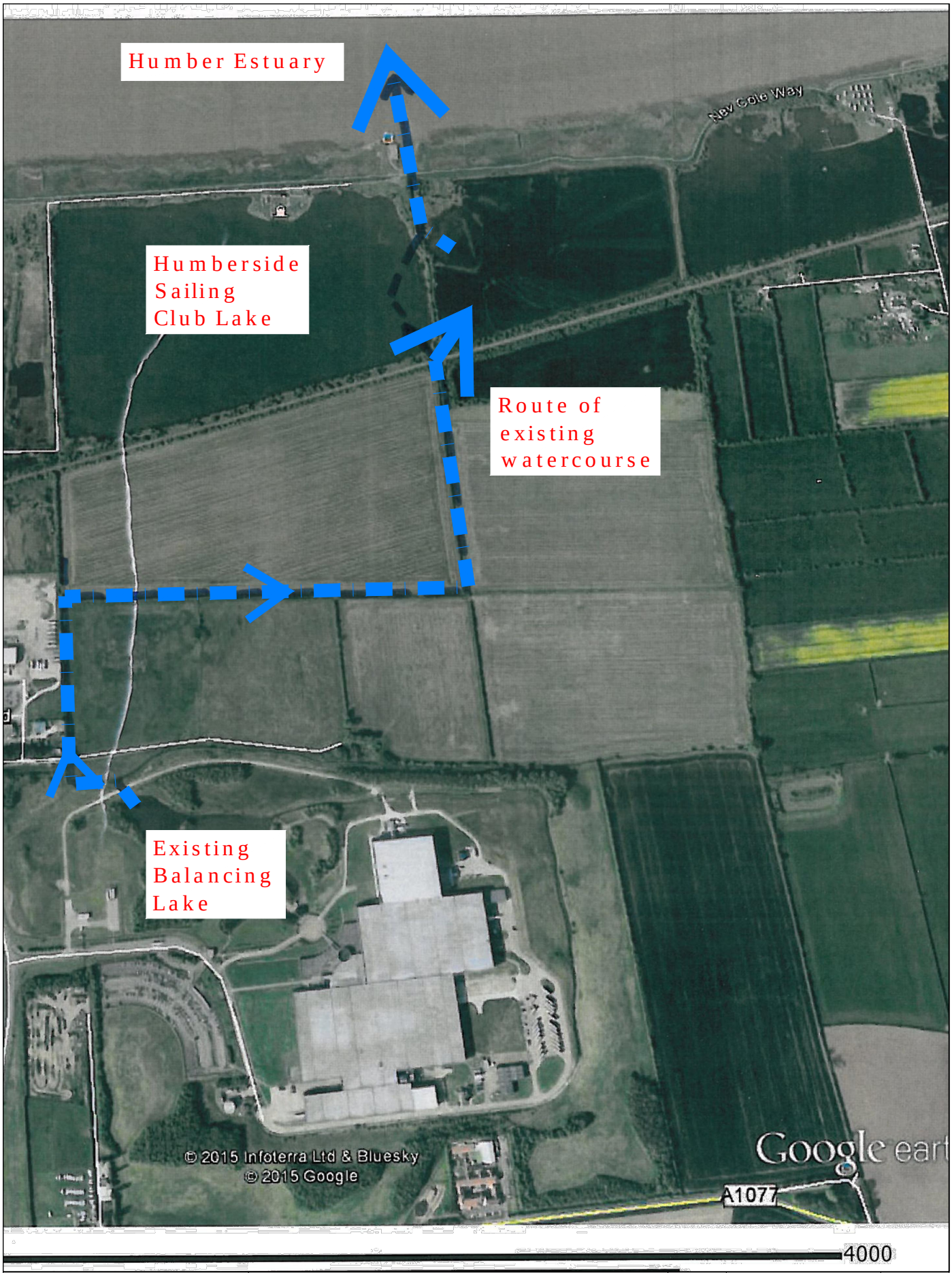
Anglian Water Foul Sewerage Network
Development will lead to an unacceptable risk of flooding downstream. A drainage strategy will need to be prepared in consultation with Anglian Water to determine mitigation measures.

Please refer to the Anglian Water Pre Planning Assessment Response dated Wednesday 20 August 2014 approving foul water connection into Anglian Water manhole reference 5302 in Pasture Lane.

Yours faithfully

Ian Ellis

Enc Internal Drainage Board Correspondence
Drawing Ref 8075-003 Route of Existing Watercourse
Anglian Water Pre Planning Response



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Route of Existing Watercourse

Barton upon Humber

Drawn	Scale	
IE	NTS	QIMS ISO 9001 REGISTERED FIRM
Checked	Date	
	05.02.15	
Approved	Drawing Number	Size
	7075-003	A4