From: Steve Smith [mailto:ssmith@honace.com]

Sent: 11 February 2016 13:59 **To:** Claire Tomalin2, Principal Planner

Subject: RE: Application ESS/34/15/BTE Land at Rivenhall Airfield

Dear Claire.

By means of clarification, the reason we have suggested that the monitoring starts before or coincidental to the earthworks is that groundwater quality monitoring was carried out as part of the Site A2 quarrying operations and the existing groundwater quality standard is known.

Within the recent Regulation 22 submission the following was noted within 6.2 - Hydrogeology & Groundwater:

6.2.8 Updated Groundwater Quality Baseline 2015

In 2013 and 2014, as part of the Site A2 quarry operations, the groundwater quality in and around the IWMF site was tested. The suite of determinands and results are presented in Table 6.2.2

Field parameter measurements for pH, temperature, electrical conductivity and dissolved oxygen were taken in August 2013 and February 2014. Results were recorded at seven monitoring points (Pz02, Pz07, Pz09A, Pz11, Pz16A, Pz19 and Pz21) in August 2013 and eight monitoring locations (Pz02, Pz07, Pz09A, Pz11, Pz16A, Pz18, Pz19 and Pz21) in February 2014. Groundwater samples were also taken for laboratory analysis at the same locations.

Table 6.2.2: Summary of August 2013 and February 2014 Groundwater Quality Data

Parameter	Unit	wqs	Number of Samples	Number of Samples >LOD	Concentrations		
					Minimum	Mean	Maximum
Temperature*	Degrees Celsius	-	15	15	10.1	11.75	13.6
Dissolved Oxygen*	mg/L	-	15	15	4.98	9.72	16.75
Electrical Conductivity*	mS/cm	2500	15	15	537	815	1193
рН*	pH units	<6.5 and >10.0	15	15	7.13	7.45	8.12
Boron^	mg/L	1000	15	10	<12	19.4	87
Cadmium [^]	mg/L	5	15	1	<0.03	0.1	0.07
Calcium^	mg/L	250	15	15	115.2	149.2	196.6
Total Chromium^	mg/L	50	15	1	<0.2	0.4	0.4
Copper^	mg/L	2000	15	7	<7	4.8	14
Total Iron^	mg/L	2000	15	1	<4.7	8.5	40.3
Lead^	mg/L	200	15	8	<5	3.2	5.1

Parameter	Unit	wqs	Number of Samples	Number of Samples >LOD	Concentrations		
					Minimum	Mean	Maximum
Magnesium^	mg/L	50	15	15	2.3	5.6	11.1
Manganese^	mg/L	50	15	5	<1.5	2.5	19
Nickel^	mg/L	20	15	10	<2	3.1	11.5
Potassium^	mg/L	12	15	14	<0.1	3.2	24.3
Sodium^	mg/L	200	15	15	9.5	26.5	107.5
Zinc^	mg/L	5000	15	14	<3	12.5	28
Sulphate	mg/L	250	15	15	50.65	112.4	261.99
Chloride	mg/L	250	15	15	10.1	38.2	57.6
Nitrate (as NO3)	mg/L	50	15	15	0.4	36.8	73.8
Ammoniacal Nitrogen (as N)	mg/L	0.39	15	6	<0.03	0.03	0.09
Total Alkalinity (as CaCO3)	mg/L	-	15	15	210	277	354
Bicarbonate Alkalinity (as CaCO3)	mg/L	-	15	15	210	277	354
BOD (Settled)	mg/L	-	15	2	<1	0.6	2
COD (Settled)	mg/L	-	15	5	<7	5.8	18
Total Organic Carbon	mg/L	-	15	1	<2	1.5	8

^{*} Field parameter

No hydrocarbons, volatile organic compounds, arsenic, mercury, selenium or nitrate were detected at concentrations greater that the laboratory limit of detection.

An initial screening against the UK DWS (Water Supply (Water Quality) regulations 200, SI2000/3184) indicates that the groundwater quality is generally within the standards for potable supply. The exceptions to this are nitrates across much of the area, which might be expected in an agricultural setting, sulphate at Pz11 in August 2013 and potassium in Pz11 in February 2014.

We trust the above offers clarification of the existing ground water setting, and offers an explanation of the proposed groundwater quality testing that will be carried out at the IWMF site.

Kind regards,

Steven Smith

[^] Dissolved concentrations

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From: Claire Tomalin2, Principal Planner [mailto:Claire.Tomalin@essex.gov.uk]

Sent: 11 February 2016 13:39

To: Steve Smith <ssmith@honace.com>

Subject: RE: Application ESS/34/15/BTE Land at Rivenhall Airfield

Mr Smith

I will not send this back to the EA because I am sure it would not be considered acceptable. Monitoring would need to be done **prior** to any earthworks, otherwise it could not be shown conclusively that any adverse readings were not pre-existing problems or ones caused by the works.

Regards

Claire Tomalin
Principal Planner • Minerals & Waste
Planning and Environment

Telephone: 03330 136821

Email: claire.tomalin@essex.gov.uk www.essex.gov.uk

Essex County Council, County Hall, Chelmsford, Essex, CM1 1QH

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From: Steve Smith [mailto:ssmith@honace.com]

Sent: 11 February 2016 09:19 **To:** Claire Tomalin2, Principal Planner

Subject: RE: Application ESS/34/15/BTE Land at Rivenhall Airfield

Dear Ms Tomalin,

It is confirmed that the groundwater monitoring proposals will be divided into pre, during and post construction monitoring. Samples of groundwater will be taken prior to or coincidental to initial earthworks excavation activities across the IWMF site and thereafter on a 6 monthly basis throughout

the IWMF construction period (unless otherwise agreed with the Environment Agency) and on completion of construction activities across the IWMF site.

Kind regards,

Steven Smith

Director

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From: Claire Tomalin2, Principal Planner [mailto:Claire.Tomalin@essex.gov.uk]

Sent: 10 February 2016 12:27

To: Steve Smith < ssmith@honace.com >

Subject: FW: Application ESS/34/15/BTE Land at Rivenhall Airfield

Mr Smith

Please can you confirm your acceptance of pre-construction monitoring.

Regards

Claire Tomalin
Principal Planner Minerals & Waste
Planning and Environment

Telephone: 03330 136821

Email: claire.tomalin@essex.gov.uk www.essex.gov.uk

Essex County Council, County Hall, Chelmsford, Essex, CM1 1QH

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From: Barrell, Martin [mailto:martin.barrell@environment-agency.gov.uk]

Sent: 10 February 2016 11:07

To: Claire Tomalin2, Principal Planner

Subject: RE: Application ESS/34/15/BTE Land at Rivenhall Airfield

Dear Claire

Please find attached our response in respect of the additional information submitted to support the discharge of Condition 24 of this application.

Regards

Martin

Martin Barrell Sustainable Places Team Environment Agency - Essex Norfolk Suffolk

Please note my new contact details:

☎ 0203 02 58 450 **曷** 01473 271320

martin.barrell@environment-agency.gov.uk

☑ Iceni House, Cobham Road, Ipswich, Suffolk. IP3 9JD

National Customer Contact Centre: 03708 506 506 Incident hotline: 0800 80 70 60 (24 hour service)

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Awarded to Essex Norfolk Suffolk Area

From: Claire Tomalin2, Principal Planner [mailto:Claire.Tomalin@essex.gov.uk]

Sent: 08 February 2016 10:41

To: Barrell, Martin

Subject: FW: Application ESS/34/15/BTE Land at Rivenhall Airfield

Importance: High

Dear Mr Barrell

Thank you for your response below. While I appreciate that a period of consultation was given until next Monday for the additional groundwater information as I am away next week I would be most grateful to receive the EA response as soon as possible, ideally by Wednesday this week.

I also note that as part of the groundwater monitoring scheme a request was made by the EA for water quality to be monitored and the applicant has confirmed the parameters of the analysis that would be undertaken, please see attached.

Regards

Claire Tomalin
Principal Planner • Minerals & Waste

Planning and Environment

Telephone: 03330 136821

Email: claire.tomalin@essex.gov.uk www.essex.gov.uk

Essex County Council, County Hall, Chelmsford, Essex, CM1 1QH

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From: Barrell, Martin [mailto:martin.barrell@environment-agency.gov.uk]

Sent: 03 February 2016 14:53 **To:** Minerals and Waste DM

Cc: Hunter, Andrew

Subject: Application ESS/34/15/BTE Land at Rivenhall Airfield

FAO Claire Tomalin

Dear Claire

I understand that you have been speaking with Andrew Hunter in respect of the most recent consultation relating to this application, sent to us on 1 February 2016. As Andrew explained, he is currently on assignment and I will be coordinating our response.

The further information submitted consists of Regulation 22 submissions, and further information relating to specific conditions.

Having discussed with Andrew these submissions and our previous responses, I can confirm that we will have no comments on the Regulation 22 documents. I will consult internally on the further information related to conditions 17, 22 and 23, and respond accordingly.

Please do contact me if you have any questions.

Regards

Martin

Martin Barrell
Sustainable Places Team
Environment Agency - Essex Norfolk Suffolk

Please note my new contact details:

全 0203 02 58 450 县 01473 271320

martin.barrell@environment-agency.gov.uk

☑ Iceni House, Cobham Road, Ipswich, Suffolk. IP3 9JD

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