

21 April 2014

Please find enclosed my JAAP Submission Statement.

Enclosed Document 1 – Photographs showing regular congestion

Enclosed Document 2 – Flooding Photographs

Enclosed Document 3 – Environment Agency – Information Request from Emma Booth

Mrs. J.S. Gillham

**Issue 1**

iv) Does the JAAP strike the right balance between economic, social and environmental consideration?

I do not see how the JAAP can comply with environmental conservation. I have looked at the facts set before me and it is apparent as you will see my questions facts need to be understood by the inspector.

Facts/Information from "JACOBS" report.

Southend Airport Runway Extension and Associated Development Environmental Statement October 2009

Document Control Sheet BPP04F8

Client – London Southend Airport Company Limited

Project – Southend Airport Runway Extension

Document Title – Environmental Statement

The aim of this Environmental Impact Assessment (EIA) was needed to assess the impact to the proposed measures and to address such impacts of the proposed extension that were identified.

The JAAP is referred to in this report.

The airport site occupies an area of some 125ha, just to the north of Southend-on-Sea. The majority of the airport lies within the administrative area of Rochford District Council. The land owner is Southend Borough Council. Southend Borough Council lease the airport to "STOBART" on a long lease agreement.

In the report it is stated "An extension of the runway by about 300 metres plus an 80m. starter strip together with associated facilities would support the growth of the airport to around 1.97 million passengers per annum (MPPA by 2020).

Stobart are now claiming that the airport will now accommodate 5.4m. passengers per year. Mr. Andrew Tinkler speaking for Stobart claims that London Southend Airport is a key factor in the company's growth.

A section of Eastwoodbury Lane has been stopped up and traffic redirected down St. Lawrence Way to the detriment of traffic flows. Gridlock occurring at the Tesco Roundabout despite assurance to the contrary from the airport during the enquiry into the stopping up of the lane (Document 1).

It is stated in the report:-

The Crouch and Roach Estuaries, approximately 1.3km to the east of the airport is a designated nature conservation site of European importance harbouring important bird populations.

A WETLAND is being created at "Wallasea Island" approximately 5km from the airport. (This should be taken into consideration as bird activity in areas surrounding the airport is high and these wetlands proposed will increase this activity).

Bird scaring explosions are a regular occurrence, none of this was considered or identified to happen by the JAAP. A flock of homing pigeons from a resident's loft were culled, again no reference to the need for this in the JAAP.

In the report under the TITLE – WATER AND GROUND CONDITIONS

It is stated - Drainage attenuation ponds will also be provided to ensure that surface run-offs from the development is maintained at the existing "greenfield" rates, therefore minimising impacts on the brook. The attenuation ponds are not intended to provide a means of control in the event of accidental spillage of aviation fuel or other pollutants. This should be done by the proposed pollution lagoon the planning application for



which has been withdrawn. There would appear to be no mechanism to transfer pollution arriving in the attenuation ponds to the pollution lagoon when constructed.

Seen in the report

“GROUND CONDITIONS AND CONTAMINATED LAND”

Planning Policy Statement 23: Planning and Pollution Control (PPS23) sets out the policy context for addressing issues associated with the contaminated land, while the Environmental Agency’s Model Procedures for the Assessment of Land Contamination (CLR11) provide the appropriate guidance for impact assessments.

Baseline Conditions

Environmental Desk Study for the entire airport undertaken in 2007 by WARDELL ARMSTRONG – this study included the acquisition of an Envirocheck Report (Reference Environmental Statement - Groundwater 14.3.3) The proposed site is surrounded by surface water – Eastwood Brook located along the northern boundary of the airport and the Prittle Brook located approximately 370m. east of the site. ALLUVIUM is expected to be present to the north and east of the site associate with these brooks. Underlain by Pleistocene River Terrace Deposits. Both Pleistocene and recent river deposits are classified as Minor Aquifers, not providing large volumes for abstraction, but locally important for providing baseflow to rivers. The entire site is underlain by London Clay which acts as an aquilard and impermeable barrier to deeper contaminant migration.

Local farmer, Taber, has permission to abstract up to 20m<sup>3</sup>/d for agricultural purposes, this has the potential to be polluted (Reference Environmental Statement Water Supplies 14.3.2).

Ground water was encountered in the River Deposits at the runway extension area during the 2002 site investigation.

Records indicated that the airport was used previously as an aircraft base during both World Wars. It was understood from previous researchers that the airfield was bombed heavily between 1940 and 1041. An explosive ordnance survey of the site carried out by the military in the 1980’s found unexploded ordnance including pipe mines, information sources did not provide the exact locations where these mines were found. The potential presence within the site should not be discounted.

Since the 2009 Desk Study, four potential locations for surface water drainage attenuation ponds have been included in the development design. Two of the proposed attenuation pond locations should be within the mown area adjacent to the existing runway, to the rear of the church and alongside 12 smallholdings. These ponds have yet to be built which I believe to be in breach of the planning consent, this maybe because they will attract birds.

It is crucial **water resources and quality** are understood and taken into account at this hearing.

Please reference (14.5 14.8)

14.3.2 Water Supplies

14.3.3 Ground Water

14.3.4 Water Courses

14.3.5 Surface Water Drainage

14.3.7 Flood Risk

I believe these documents should be in your possession.

Ground Water Flooding

A study undertaken by Jacobs in 2004 for DEFRA entitled “GROUND WATER FLOODING SCOPING STUDY” indicated that there are no records of groundwater flooding in the vicinity of Southend or at the proposed development site (Document 2)

My record in recent years showing flooding on the site and on road structure built to accommodate the extension runway. Southend Hospital has water rising through the ground floor, A&E could not cope.

The drainage system needs to be looked at together with sewers before any more infrastructure is passed by Council, who have to request advice from Anglian Water and the Environment Agency.

In 2012 we saw a further plan ref: 12/00103/FUL, an airport terminal extension – It was learned that for this plan to be viable sewerage could not go in the direction stated by LSA agent. Advice was taken and sewerage had to be taken in 2 directions as there was not sufficient capacity in the foul water suggested by airport agent. Anglian Water told RDC no work should commence on this application until a remedy was in place!

The terminal is now open.

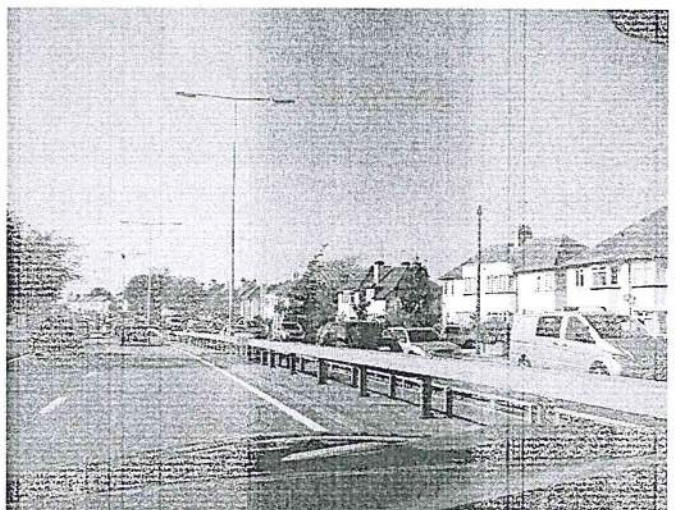
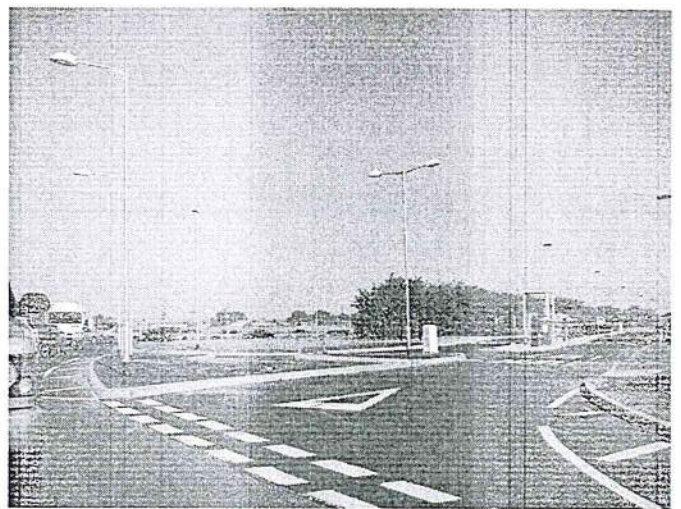
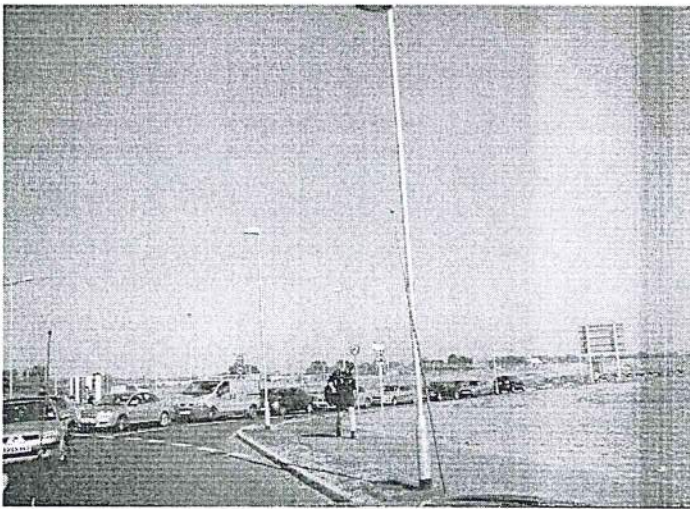
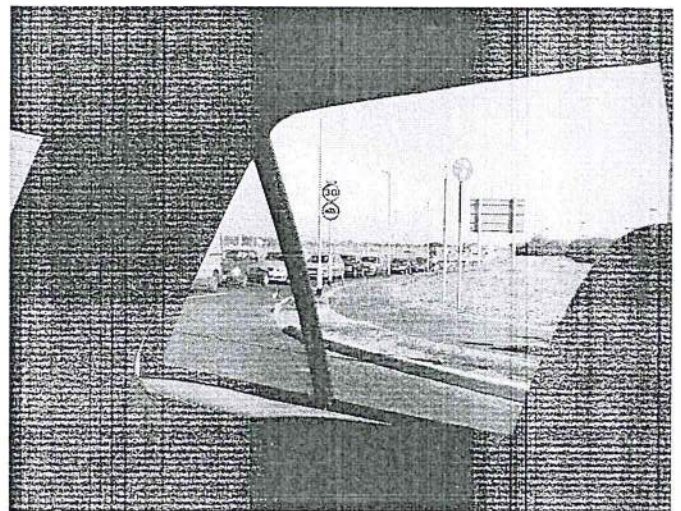
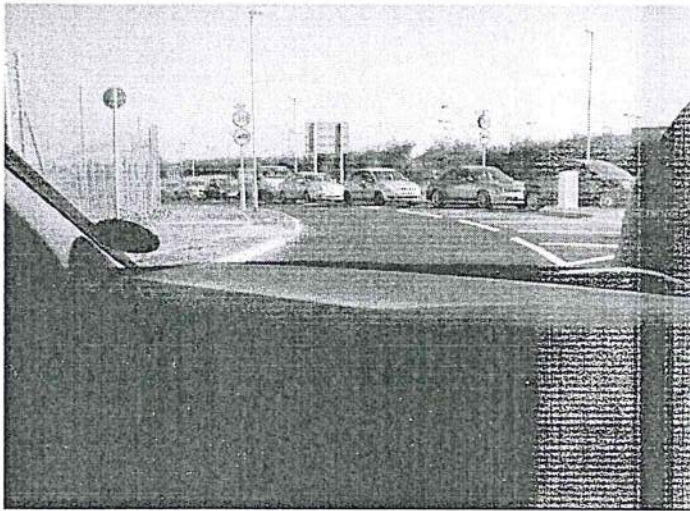
The terminal is now open, but no additional sewerage capacity has been provided, to the best of my knowledge. A pollution pond was stated as needed in the Jacobs Report. This went through as a "Permitted Development".

Emma Booth, National Permitting Services at the Environment Agency is giving advice on this subject.

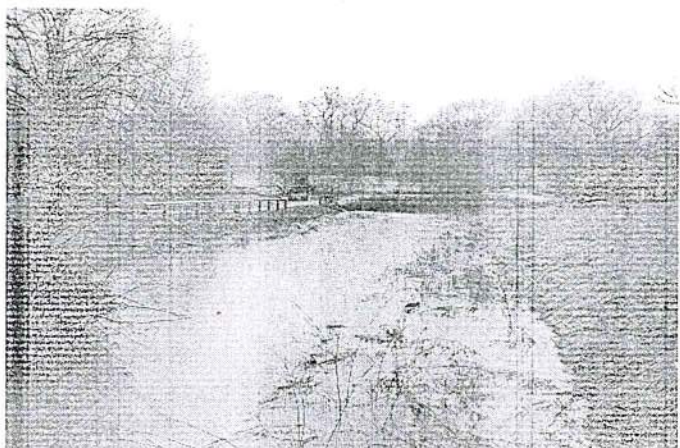
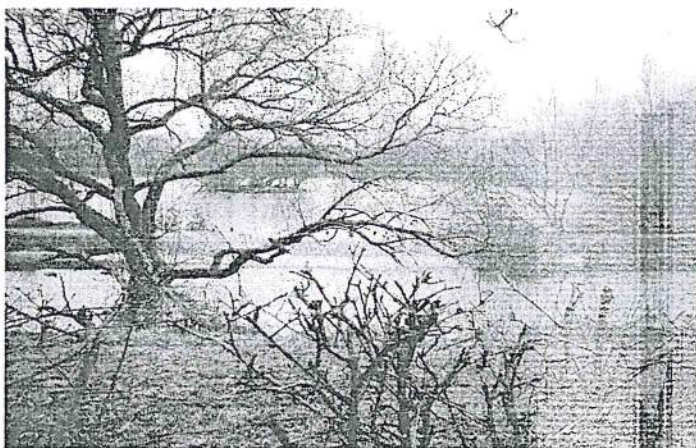
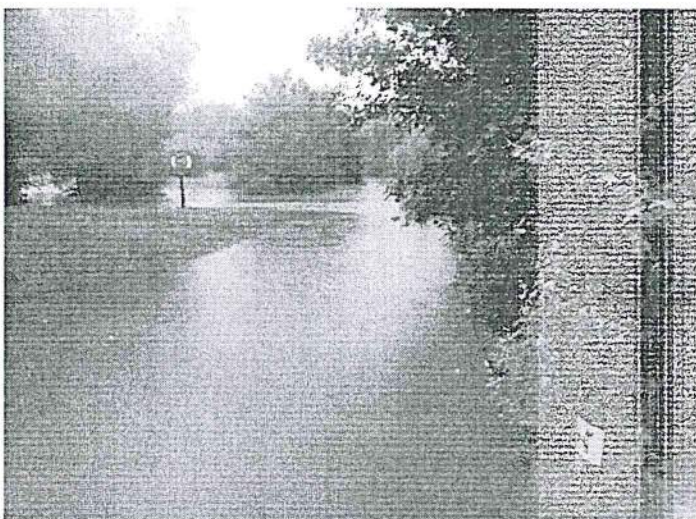
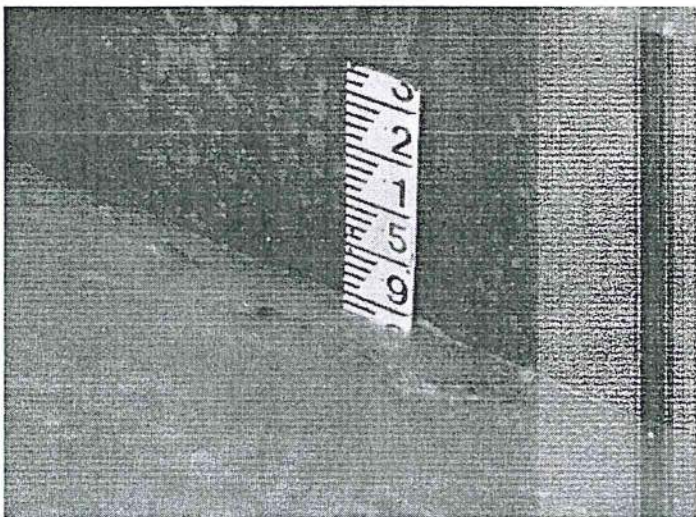
The application for the pond was withdrawn and it now seems Capita Symonds, working for LSA want to release run off into the brooks as trade effluent, the amount quoted in the new application involves discharging a maximum of 360m<sup>3</sup>/d of potassium acetate de-icer (trade effluent directly to 4 outlets, 2 points on the Prittle Brook and 2 on Eastwood Brook). On the basis of past experience fire suppressant foam laid down for an aircraft landing with a faulty undercarriage and any other runway spillages. All of this effluent will end up in the environmentally protected River Roach and is likely to affect the shellfish spat (estimated worth £millions). Refer to EA Application No. EPR/HB3790ND/A001 from Emma Booth (Document 3)



DOCUMENT 1.









**Notice of request for more information**  
Environmental Permitting (England and Wales)  
Regulations 2010

### Notice requiring further information

To: London Southend Airport Company Ltd  
London Southend Airport  
Essex  
SS2 6YF

**Application number:** EPR/HB3790ND/A001

The Environment Agency, in exercise of its powers under paragraph 4 of Part 1 of Schedule 5 of the above Regulations, requires you to provide the information detailed in the attached schedule. The information is required in order to determine your application for a permit, dated 26/03/2014. The information requested should be sent to the following address by 5 May 2014. Information should be sent to:

Permitting Support Centre  
Quadrant 2  
99 Parkway Avenue  
Parkway Business Park,  
Sheffield  
S9 4WF

Name	Date
<b>Emma Booth</b>	07 April 2014

Authorised on behalf of the Environment Agency

## Schedule

1. Please could you modify your "discharge flow estimate" document (as submitted with the application) to show the BOD/COD loadings? Ideally we would like you to make an estimate of what impacts this may have on the receiving watercourses.
2. It is apparent that London Southend were planning to conduct biological and chemical monitoring throughout 2013 and it was anticipated that a report would be produced accordingly. Was this done? If so, is it available?
3. Please can you confirm that type of potassium acetate de-icer to be used? Has this changed from the previous application? If it has changed then you will need to re-do and re-submit the risk assessment to demonstrate that the new product poses no greater threat.
4. The potassium acetate de-icer data sheet that we have lists corrosion inhibitors as an ingredient. Please can you provide additional information as to what this/these is/are and what associated risks they may pose.



- *A review of the work previously undertaken by Wardell Armstrong in December 2007 in the report titled "Phase 1, Preliminary Environmental Liability Assessment" (see Chapter 13) and the work previously undertaken by Halcrow in January 2008 in the report titled "London Southend Airport & Environs Study – Sustainability Appraisal Scoping Report".*

#### **14.3.2 Water Supplies**

The Environment Agency advised in May 2009 that there are four current licensed abstractions and two deregulated abstractions within 2km of the centre of the airport. Deregulated licences are small volume (less than 20m<sup>3</sup>/d) which no longer need to be licensed, and were revoked on 31 March 2005. The closest abstraction is around 220m southeast of the site and is currently revoked. The only other abstraction within 1km of the site is operated by Tabor Farms for general agricultural purposes and is located 550m northeast of the site, abstracting from the Eastwood Brook.

#### **14.3.3 Groundwater**

The ground conditions comprise silty clay and sandy clay River Terrace Deposits (designated Crouch First to Third Terraces) (4-10m in thickness), underlain by a thin sand and gravel layer (up to 5m in thickness). These deposits overlie London Clay that is up to 120m in thickness at this location, which is underlain by Lower London Tertiaries (up to 55m in thickness) and Upper Chalk (around 85m).

The London Clay is significantly thick and therefore classified as Non-Aquifer by the Environment Agency. The London Clay should prevent any contaminants from entering the underlying major aquifer. Any waters in the major aquifer in this region are, therefore, considered to be protected.

Superficially, the overlying River Terrace Deposits are classified in geological texts as a Minor Aquifer (perched aquifer in this instance) as they are variably permeable and capable of supporting local groundwater abstractions and base flows to rivers. Due to extreme variations in their lithology, saturated thickness and catchment area, they give rise to highly variable yields in the region. Previous site investigations showed water to be present in this layer (2.1m – 7.5m) below ground level. Previous groundwater encountered in the strata of these site investigations contained no significant contaminants, only marginal exceedances of the Dutch Target Levels for two metal contaminants (Mercury and Chromium) and one exceedance in Total Petroleum Hydrocarbons.

#### **14.3.4 Watercourses**

The main watercourses within the vicinity are the Eastwood Brook and the Rayleigh Brook, which converge to form the Hawkwell Brook. The Eastwood Brook passes within a few metres of the edge of the site flowing north-east along the airport boundary. The Prittle Brook (also known as the Prittlewell Brook) runs parallel to the eastern boundary of the airport just over 1km away. Both the Hawkwell Brook and the Prittle Brook eventually flow into the River Roach which is located approximately 0.5km to the north-east of the airport boundary.

Eastwood Brook has an almost totally urbanised catchment on an industrial estate to the west of the airport. At Eastwood, the catchment area is 10.4km<sup>2</sup>. Its baseflow is believed to be derived from upper river terrace deposits, but supplemented by runoff and some effluent returns. Because of its urban catchment it is very flashy. Flow data up to 2002 measured at Crump Weir gauging station (see Figure 14.2) indicated the flow characteristics to be as follows:



#### 14.3.5 Surface Water Drainage

The airfield surface water drainage system from the on-site hard standing areas has two known discharges to the Eastwood Brook to the west and a further two to the Prittle Brook to the east. The two discharges to the Prittle Brook are via older chamber type interceptors. Only one of the discharges to the Eastwood Brook, that is the surface water discharge for the fire-training ground, is via an interceptor (full retention type). It is understood that the other surface water discharge to the Eastwood Brook, that is surface water runoff from half of the runway and cross-wind runway (Taxiway Foxtrot), is discharged directly to the Eastwood Brook without any pollution control device. There are other surface water discharges from the site, namely, from the fuel farm to the Eastwood Brook and from the existing terminal buildings to Anglian Water's stormwater system. There is a further discharge to the Eastwood Brook from the MRO area to the north of the brook. The locations of these discharges and the associated interceptors are illustrated in the Emergency Pollution Response Plan at Appendix L.

From the information available it is considered unlikely that the existing airfield drainage system has any spare hydraulic capacity to accommodate additional surface water runoff from the proposed development. The condition and integrity of the existing airfield surface water drainage system is unknown. No flow attenuation features such as balancing reservoirs currently exist for any of the airfield's surface water discharges. The existing surface water drainage system for Eastwoodbury Lane comprises a stormwater drain.

#### 14.3.6 Chemical Storage and Use

De-icers are not currently used on ground surfaces at the airport, but de-icing of aircraft on the aprons is occasionally carried out using Kilfrost ABC3 Type 2 fluid (a propylene glycol based product). The frequency of use has been recorded at 20 events in 2006, five in 2007 and four in 2008. Each event would involve the use of approximately 120 litres of fluid. The total quantity stored comprises two, 1000 litre Intermediate Bulk Containers (IBC), located in the handling shed on the south side of the airport next to the fire station. The containers are located on bunded pallets.

Fire fighting foam agent is also stored in two IBC containers on bunded pallets in the handling shed. Approx 2000 litres per annum are used.

#### 14.3.7 Flood Risk

##### Fluvial Flooding

The Environment Agency Indicative Flood Maps (see Figure 14.1) show that the proposed development lies within Flood Zone 1, i.e. not at risk from a 1 in 1000 year fluvial flood. The extreme north-western margin of the airport, in particular the western end of the cross-wind runway (Taxiway Foxtrot) is susceptible to fluvial flooding during a 1 in 100 year event. The Flood Maps do not indicate any fluvial flooding of the airport from the Prittle Brook, nor any fluvial/tidal flooding from the River Roach.

##### Flooding from Surface Runoff

Discussions with airport staff have indicated that there has been ponding from surface runoff on the main runway at the intersection with the cross-wind runway (Taxiway Foxtrot) and just off the end of the cross-wind runway (opposite side to the fire-training ground). It is possible that the ponding in these areas has resulted from a lack of maintenance of the airfield's drainage system in these areas. Both of these ponding incidents are some distance from the proposed development areas.