

Gatwick Airport

**Gatwick Stream Flood Attenuation
Development**

Supporting Planning Statement

November 2012

Table of Contents

1	Introduction.....	2
2	The Proposed Development	5
3	Planning Policy Framework and other Considerations	14
4	Appraisal of the Proposed Development against Planning Policy	20
5	Conclusions	27

1 Introduction

1.1 Background and Purpose of this Statement

- 1.1.1 Gatwick Airport is currently at risk of fluvial flooding from high river flows in the Gatwick Stream during periods of extreme rainfall.
- 1.1.2 This Planning Statement has been prepared in support of a full planning application, submitted on behalf of Gatwick Airport Ltd (GAL), for the development of a flood attenuation project on the Gatwick Stream immediately to the south east of the airport.
- 1.1.3 **The development has been designed to double the level of protection to the airport from flood risk from a 1 in 50 year risk of flooding to a 1 in 100 year level of protection.** The proposed development includes the diversion of a short section of the Gatwick Stream together with associated landscape, access and ecological mitigation and enhancement works.
- 1.1.4 The development responds to recommendations and actions arising from the report of Sir Michael Pitt into the floods which caused major damage and disruption to parts of the UK in 2007¹. The Pitt report identified the importance of ensuring that the UK's critical infrastructure assets, including its major transport interchanges, are protected from flood risk. **Gatwick Airport is a critical part of the UK's transport infrastructure. Increasing its protection from flood risk,** as proposed in this planning application, reflects the recommendations of the Pitt Report and the actions agreed by Government in its response to the report. It will reduce and minimise the risks of disruption to operations, inconvenience to passengers and damage to essential infrastructure during extreme flood events.
- 1.1.5 This Statement describes the proposed development and identifies and reviews the proposed development against the policies of the statutory Development Plan, national policy and other considerations.
- 1.1.6 Section 2 of this Statement explains the need for and benefits of the proposed development, summarises consultation activities undertaken which have informed the proposed development and describes the various elements of the proposed development.
- 1.1.7 Section 3 identifies the key local, regional and national planning policy context and other planning considerations relevant to the determination of the application.
- 1.1.8 Section 4 considers the planning implications of the proposed development against the relevant policies and considerations. This includes how the design of the scheme

¹ The Pitt Review: *Lessons learned from the 2007 floods (June 2008)*

responds to landscape and ecological considerations and how other matters have been addressed.

1.1.9 Section 5 sets out conclusions.

1.2 Other Supporting Information

1.2.1 As well as this Planning Statement the planning application is supported by:

- A Flood Risk Assessment (FRA)(prepared by Halcrow)
- An Ecological Appraisal Report (EAR) (prepared by Chris Blandford Associates)
- A Landscape and Visual Appraisal (LVA) (prepared by Chris Blandford Associates)
- A Landscape, Access and Ecological Mitigation and Enhancement Strategy (LAEMES) (prepared by Chris Blandford Associates)
- Tree Survey and Arboricultural Impact Assessment (prepared by Martin Dobson Associates Ltd)
- An Archaeological Assessment (prepared by Network Archaeology)
- Construction Management Plan (prepared by Halcrow)

1.3 The Site and its Surroundings

1.3.1 The main application site is an area of countryside lying immediately to the south-west of the Crawley Sewage Treatment Works (STW), to the east of the London – Brighton mainline railway and to the north of Radford Road, Tinsley Green. A section of the Gatwick Stream runs through the site and marks part of its eastern boundary. The site measures some 15 hectares and is currently divided up by intermittent hedgerows and ditches into a number of field parcels. The site is owned by GAL and used for cattle grazing subject to an agricultural tenancy.

1.3.2 Oldlands Farmhouse - a residential property and Grade II listed building, which also operates as a bed and breakfast establishment - lies immediately to the south of the site on the northside of Radford Road. Two further residential properties - Brookside a Grade II listed former farmhouse and Radford Farm - are also located on the northside of Radford Road but to the east of the Gatwick Stream. Other residential properties are situated on Radford Road, mainly on its south side. The Greyhound public house is also to the south of the site on the southside of Radford Road.

1.3.3 To the east of the main site there are open fields which are managed by GAL as meadow grassland, and a disused farm house – Rolls Farm. Beyond these fields is the access road to the STW from Radford Road. The access road is proposed to be used to support construction works. As part of the development improvements are also therefore proposed to the access road including to its junction with Radford Road.

- 1.3.4 An aerial photo of the development site is shown below, with the areas of the flood attenuation area and access road improvements shown indicatively.

Aerial Photo of Development Site



1.4 Planning History

- 1.4.1 There is no relevant planning history for the site.

2 The Proposed Development

2.1 Need and Benefits of the Proposed Development

- 2.1.1 The proposed development is a flood attenuation project on the Gatwick Stream immediately to the south east of the airport. It has been designed to ensure that the airport would be protected from fluvial flooding from a flood event of up to 1 in 100 years.
- 2.1.2 The need for the development arises from the current risk of fluvial flooding at Gatwick Airport, which could arise from excessively high river flows in the Gatwick Stream, a tributary of the River Mole, during periods of extreme rainfall in the river's catchment area.
- 2.1.3 The risk is primarily due to the size of a culvert under South Terminal, which was constructed to convey the Gatwick Stream when the South Terminal was built. At its entrance immediately to the south of South Terminal, the size of the culvert constricts the flow in the Stream to 15m³/s. When flows upstream of the airport exceed this level flooding can occur immediately upstream of the culvert. In 2000 the A23 under South Terminal was closed for several days. In more extreme events, as shown in the Crawley Strategic Flood Risk Assessment, flooding would also impact widely on operational areas of the Airport, which would be likely to cause the airport to close and cause major damage to key parts of the airport's infrastructure.
- 2.1.4 Gatwick Airport is a critical part of the UK's transport infrastructure. It is therefore important that it is protected from and resilient to flooding to avoid disruption to operations, inconvenience to passengers and damage to infrastructure. Recognition of the need to protect and make critical infrastructure resilient to flood risk was identified in the recommendations of the report of Sir Michael Pitt into the floods that caused major devastation, damage and destruction to parts of the UK in 2007², and has since been taken forward by UK Government in its Critical Resilience Infrastructure Programme and Sector Resilience Plans for Critical Infrastructure.
- 2.1.5 GAL has been working closely with the Environment Agency to reduce the risk of flooding at the airport. As part of this, GAL has agreed to contribute over £4M towards the costs of the Environment Agency's Upper Mole Flood Alleviation Scheme (UMFAS) to enable this project to be brought forward. The UMFAS will benefit parts of the airport, Crawley and Horley which are currently at risk of flooding. Whilst the UMFAS, once completed, is predicted to reduce flood risk at Gatwick Airport from a 1 in 20 year event to about a 1 in 50 year event, GAL is seeking to increase the

² The Pitt Review: *Lessons learned from the 2007 floods (June 2008)*

standard of protection further to achieve protection from a 1 in 100 year flood event. Flood risk modelling shows that this level of protection would be achieved with the proposed development.

2.2 Overview of the Proposed Development

2.2.1 The proposed development entails a number of elements. These can be summarised as follows, with further details described in Section 2.4 below:

- Construction of a **flow limiting control structure** within the Gatwick Stream immediately upstream of the airport designed to restrict the flows downstream of the structure to **15m³/s**.
- Engineering operations involving excavation of c.160,000m³ of soil from the fields in the land alongside the Gatwick Stream immediately upstream of the control structure and then restoration of the site to grazing land. This area would then provide the flood attenuation area which would **impound with floodwater** when flows in the Gatwick Stream exceed 15m³/s.
- Formation of **embankments** along the western and eastern boundaries of the attenuation area. These tie into the flow limiting control structure. Together with the storage capacity created from the excavated area these will contain flood water and create a **storage 'reservoir' capable of holding c.186,000m³ of flood water**.
- Diversion of a short section of the Gatwick Stream immediately to the west of the Thames Water Crawley Sewage Treatment Works (STW), creating room for the eastern arm of the earth embankment which provides flood protection to the STW.
- A short section of the Gatwick Stream embankment, just to the north of Tinsley Bridge, will be engineered to form an inlet into the attenuation area for flood waters during high river flows. A simple outlet structure will be incorporated in the bank of the Gatwick Stream just upstream of the control structure for water to return into the Gatwick Stream as flows in the stream recede.
- Vehicular maintenance access route to the control structure from the STW (incorporated into the eastern embankment).
- The construction of a single storey 6m x 4m control building next to the maintenance access route.
- Extension of the permissive footpath network. This includes a new footbridge over the Gatwick Stream to link up existing footpaths to the north of the STW with footpaths to the south of Radford Road and east of the STW.
- 150,000m³ of the excavated material will be removed from the site.
- Improvements to the STW access road and its junction with Radford Road, the purpose of which is to ensure safe construction access and egress for construction vehicles transporting excavated material. Subject to landowners consent the works are proposed to be retained permanently.
- Formation of a temporary haul road and construction compound area between the STW access road and the development site.

- 2.2.2 Related to the works will be the removal of the Gatwick Link Gauging Station which is located at the downstream end of the South Terminal culvert. The gauge is a crump weir with a crest level above the invert level of the culvert, which also reduces the carrying capacity of the culvert.
- 2.2.3 The proposed development is supported by a Landscape, Access and Ecological Management Plan and Strategy (LAEMES). This explains how the scheme design provides for the retention and protection of the majority of the most important trees within the site – these being mature trees which have been assessed as making the greatest contribution to the landscape, and veteran trees which have been assessed as having medium and high potential for bat roosts. Nearly all of these bat potential trees will be retained except for one tree with high bat potential and two with medium potential.
- 2.2.4 It is proposed to remove twenty six of the eighty three largest trees that were individually surveyed on the site (out of approximately 600 tree and hedgerow individuals). 68 trees were identified as providing a high contribution to the site landscape and 48 of these will be retained. The development will, however, require the removal of all the existing hedgerows within the site (798 linear metres), including those hedgerow trees that are assessed as being of lower landscape and ecological importance. A total of 540 linear metres of hedgerow would be replaced and this would be supplemented by the planting of just over 2000 new individual trees. The proposed landscape mitigation and enhancement proposals provide for replacement tree and hedgerow planting both within the site and in adjoining fields.

2.3 Pre Application Consultation

- 2.3.1 The proposed development and associated landscaping, access and ecological works have been prepared following consultation and discussions with a range of key statutory and non statutory stakeholders.
- 2.3.2 Prior to submission of the application draft proposals were presented to officers of Crawley Borough Council.
- 2.3.3 There have also been pre-application meetings and discussions with statutory and non-statutory consultees including:
- Environment Agency (EA)
 - West Sussex CC Archaeology and Historic Resources
 - West Sussex CC Highways
 - Natural England
 - Gatwick Airport Aerodrome Safeguarding
 - Thames Water Utilities Ltd.
 - Network Rail
 - Reigate and Banstead Council Drainage Engineer
 - Local Residents

- Gatwick Greenspace

- 2.3.4 The proposals, in particular the landscape, access and ecological enhancements have been modified and refined to reflect the views of the various statutory consultees and stakeholders.
- 2.3.5 The diversion of a 600m long section of the Gatwick Stream has been discussed in detail with the relevant officers of the EA and with GAL Aerodrome Safeguarding to ensure that the new section of river channel will provide for an overall enhancement and more diverse river channel environment, without increasing bird hazard risk to safety of aircraft operations.
- 2.3.6 The proposals have been designed to offer opportunities for greater enjoyment of this area of countryside by local residents through including a proposed extension to the footpath network to establish a permissive footpath link in the corridor of land between the railway line and the STW thereby linking footpaths to the north of the STW in and around Horleyland Wood more directly to the footpath network to the south and east of the STW and south of Radford Road.

2.4 Further details of the proposed development

Flow Control Structure, Embankments and Spillway

- 2.4.1 The flow limiting control structure will be set within the existing channel of the Gatwick Stream shortly before the stream flows under the railway line and towards the airport.
- 2.4.2 The structure is a concrete structure incorporating cast iron / steel twin control gates. These gates are designed to constrict river flows downstream of the structure to a maximum of 15m³/s (the capacity of the South Terminal culvert).
- 2.4.3 The control structure would sit between two shallow grass embankments, one extending for 230 metres to the south of the control structure, parallel to the railway line ('the western embankment'), the other extending 300 metres in a south easterly direction alongside the boundary of the STW ('the eastern embankment'). These embankments act as dams to retain flood water within the attenuation area during flood events up to the 1 in 100 year flood.
- 2.4.4 The western embankment protects the railway embankment and is also a spillway; that is that it has been designed at a level such that it would overflow during more extreme flood events (in excess of the 1 in 100 year storm) when flood water in the attenuation area reaches the attenuation area capacity. This measure will ensure that the proposed attenuation scheme does not increase the risk of or cause flooding to properties upstream of the attenuation area. The downstream face of the embankment will be surfaced with an open geo-textile membrane to prevent erosion in the event of flood water over topping it. The embankment is sufficiently separated from the railway line to ensure no risk to the structure or safety of the railway in any flood event events where floodwater over tops it.

- 2.4.5 The eastern embankment protects the STW. In addition the top of the embankment will tie into a short maintenance access to the control structure from the STW. The crest of the embankment will therefore be flat and incorporate a 'grasscrete' or similarly constructed vehicular access track.
- 2.4.6 The two embankments tie in to the top of the control structure (2.2 metres above ground level). The western embankment then drops to a level of 1.25 metres for 210 metres (the spillway section) before tailing off to ground level. The eastern embankment stays at a height of 2.2 metres to protect the STW before graduating down to ground level.
- 2.4.7 The inner and outer slopes of the embankments will be seeded with grass. They have been positioned to avoid the loss of the most important trees.
- 2.4.8 The discharge point for treated water from the STW to the Gatwick Stream is downstream of the control structure and will therefore be unaffected.

The Flood Attenuation Area

- 2.4.9 The attenuation area is the area that would impound with water from the Gatwick Stream during flood events in excess of 1 in 50 year storm events and up to 1 in 100 year storm events.
- 2.4.10 The attenuation area is formed by the control structure and embankments together with the excavation / removal of 160,000m³ of soil immediately to their south. This level of excavation means existing ground levels being reduced by a maximum of 2.2 metres below existing ground level in the northern part of the attenuation area. The depth of excavation reduces to the south, west and east to tie into existing ground levels. The base of the attenuation area will have a 1 in 200 slope such that as any flood recedes flood waters would drain freely back into the Gatwick Stream in a northerly direction provided that the flow in the Gatwick stream is less than about 1.5m³/s. The sides of the attenuation area have gently sloped banks of approximately 1 in 20 gradients.
- 2.4.11 For safe operation of the airport in relation to bird hazard risk it is imperative that no direct rainfall forms large water bodies in the reservoir during periods when the reservoir area cannot drain freely due to water levels in the Gatwick Stream being above the height of the piped outlet from the reservoir into the Gatwick Stream. A pumping station will therefore be provided adjacent to the control structure. This will sit within the body of the western embankment and will comprise a low level pipe connecting to the base of the flood storage area, a concrete pump chamber and an outlet to the Gatwick Stream.
- 2.4.12 The excavation avoids the areas of the site which accommodate the most important trees. These areas will remain as slightly raised 'islands' to protect the root systems and therefore longevity of these trees.
- 2.4.13 Together with the embankments the attenuation area will have capacity to hold 186,000m³ of storm water (equating to the storage area required to hold flood water

in the 1 in 100 year storm event). The area and depth of excavation is therefore that which is needed to achieve the water storage capacity that has been modelled to be needed for the 1 in 100 year storm.

Gatwick Stream Diversion, Inlet and Outlet

- 2.4.14 Consideration has been given to how best to ensure protection of the STW whilst also minimising the area of excavation to achieve the attenuation area required for 1 in 100 year flood. The initial option considered was to construct a flood wall between the existing Gatwick Stream channel and the STW. Given, however, the limited space between the eastern bank of the Gatwick Stream and the existence of a number of services and activities carried out by Thames Water Utilities Ltd (TWUL) alongside the western perimeter of the STW it was concluded that this option would be impractical.
- 2.4.15 Having established that this section of the Gatwick Stream is of limited ecological importance and partly infested with invasive species (including Himalayan Balsam) it has therefore been decided that the optimum solution is to divert a 600 metre section of the Gatwick Stream into a newly constructed river channel running close to and alongside the alignment of the existing channel. This creates both the space to construct the eastern embankment without impinging on TWUL operations and services and the opportunity to provide an improved section of river channel that would run through the northern area of the attenuation area.
- 2.4.16 The principle of the diversion has been agreed with the EA and BAA Aerodrome safeguarding.
- 2.4.17 The LAEMES provides further detail of the proposed river channel works. In summary the construction of the realigned section of the stream seeks to ensure a new section of stream that is consistent with the general character and sinuosity of the existing channel. The works would include appropriate tree and riparian planting and the construction of riffle sequences and log weirs to aid the 'naturalisation' of the watercourse, encourage a more diverse morphology and increase the overall botanical diversity of the stream.
- 2.4.18 A 90 metre section of the western bank of the Gatwick Stream just to the north of Tinsley Bridge will be lowered slightly to form an inlet for water to flow into the attenuation area during high river flows associated with any storms in excess of 1 in 50 year period. The outlet has been described at para. 2.4.11 above.

After-Use, Landscaping and Public Access

- 2.4.19 After the excavation and construction works have been completed the gently sloped sides and base of the attenuation area will re-seeded and the field pattern re-established with replacement hedgerow and tree planting.
- 2.4.20 An assessment will be undertaken, prior to commencement of the engineering works, to identify individual trees and shrubs that have a reasonable chance of being successfully transplanted. The root-balls and stumps of individual trees and shrubs

will be temporarily moved to a holding area outside the construction zone and will then be re-located along the alignment of the existing hedgerows to link 'islands' of retained trees and to help reinstate the existing hedgerow patterns.

- 2.4.21 Landscape enhancement measures will take the form of new tree planting to reinforce and infill gaps in the existing tree belts that run alongside and help to screen the railway line embankment and southern edge of the STW. In total 798 linear metres of hedgerow will be removed with 540 linear metres of new hedgerow to be planted. 2000 new individual trees will be planted. The visual amenity of the site will be enhanced as a result.
- 2.4.22 Once the grass has re-established, the area will then continue to be used, as it is currently, for grazing purposes.
- 2.4.23 New post and rail fencing will be provided to protect the replanted hedgerows and trees and the diverted river embankments from damage from cattle grazing the land. Once trees and hedgerows are established this fencing could be removed.
- 2.4.24 The existing fence line along the southern boundary of the STW will be extended using new security fencing up to 1.75m high, which will be erected around the western side of the STW. Gates will be provided in this fence to access the maintenance track to the control structure.
- 2.4.25 Replacement timber post and rail fencing and planting will also be erected to enclose the garden of Oldlands Farmhouse, which will be temporarily exposed due to the loss of existing trees and undergrowth to the north of the Farmhouse. Replacement tree planting will be established to provide enclosure to the rear of the farmhouse.
- 2.4.26 The long term plan agreed as part of an earlier planning application (Ref. CR/2011/0620/FUL) to connect FP360/1Sy (to the east of the STW Access Road) to FP3377 (to the south of Radford Road) via a wooden footbridge over the Gatwick Stream will be implemented.
- 2.4.27 An additional landscape enhancement measure, to be taken forward as part of these proposed works, will be to connect the existing footpath network to the north of the STW in Horleyland Wood (including FP360Sy) with the existing public footpath (FP3377) that terminates on the southern edge of Radford Road. This new route will initially pass through a narrow corridor of land between the STW and the eastern embankment of the railway line and then pass through the attenuation area to join the northern edge of Radford Road. A new timber footbridge will be provided to the north of the control structure for this new footpath to pass over the Gatwick Stream.

Ecological Mitigation and Enhancements

- 2.4.28 A series of baseline ecological surveys of the site and surroundings have been carried out in 2011 / 12 to identify any potential impacts the proposed scheme may have on habitats and species protected by law, or considered to be of nature conservation value, and to identify the scope and options for mitigating such impacts through an iterative design process. The baseline surveys encompassed botany,

reptiles, amphibians, bats, dormice, breeding birds and aquatic surveys for invertebrates, fish and aquatic plants.

- 2.4.29 Apart from a number of trees which have potential to accommodate bat roosts the site is not regarded as being of significant ecological or landscape merit. Nevertheless some mitigation is necessary as follows:
- i) 13 of the 16 trees identified as having potential to support bat roosts will be retained as part of the scheme. The three that will be lost will be removed under supervision of an appropriately qualified ecologist.
 - ii) The removal of hedgerow shrubs and trees will also be supervised by an Ecological Clerk of Works (ECoW), who will ensure that any vegetation clearance will not affect breeding birds that may be present. It is anticipated that much of the vegetation clearance may be completed prior to the commencement of the main bird breeding season. However, if this is not possible, the ECoW will undertake regular monitoring of the remaining vegetation to ensure that breeding birds are unaffected by construction activities.
 - iii) The design of the realigned section of the Gatwick stream is designed to reflect the overall shape, dimension and channel pattern of the existing stream. Tree planting and riparian vegetation planting will be consistent with the species expected to be present within the catchment and in-channel features such as log weirs and deflectors will enhance the stream's overall ecological value.
- 2.4.30 GAL's aim is that the works will support its objective to secure, in accordance with the Airport's Biodiversity Action Plan targets, a biodiversity benchmark award. This award would represent the culmination of a number of years of work, overseen by Gatwick Greenspace, to enhance areas of the Gatwick estate to ensure the prolonged health and diversity of species but in a way that improves access and educational value. GAL will continue to work with the Gatwick Greenspace Partnership, part of the Sussex Wildlife Trust, to oversee the implementation of the LAEMES, which ties into wider countryside management and biodiversity enhancements for this area of countryside to the south east of Gatwick.

Construction Access Improvements

- 2.4.31 The Construction Strategy proposes the use of the STW access road for construction vehicles including those that will be removing the excess material. The existing junction between the STW access road and Radford Road is currently sub standard.
- 2.4.32 To improve road safety the junction will be improved to offer improved visibility and manoeuvring for construction vehicles. Following discussion with WSCC Highways it has been agreed that the changes will provide 2.4m x 120m visibility splays in both directions and an increased junction radii. In addition a vehicle passing place is proposed alongside the road.
- 2.4.33 It is proposed that these works will be retained to offer a long term improvement to the access for vehicles serving the STW.

2.5 Construction Strategy

- 2.5.1 A Construction Management Plan (CMP) accompanies the planning application and includes information on how construction traffic will be managed.
- 2.5.2 The construction of the reservoir and supporting structures is anticipated to begin in 2013, with the majority of work taking place during the summer months.
- 2.5.3 The main construction activities will be the excavation works to form the flood attenuation area and diverted river channel, construction of the control structure, formation of the embankments and replanting / restoration of the site.
- 2.5.4 The development will be managed from an on-site compound adjacent to the development site in the field to the east of the Gatwick Stream and west of the STW access road
- 2.5.5 Some of the excavated material will be re-used on site to form the embankments but an estimated 150,000m³ of material will be surplus and will need to be removed from the site. It is planned that this material will be re-used in other authorised construction projects in the local area in accordance with the CL:AIRE Code of Practice³.
- 2.5.6 The construction access and egress will be via the access road that serves the STW. The CMP will direct construction vehicles to access and leave the site to and from the A23 to the west, thus minimising traffic on the local roads. It will also include other measures to control vehicle movements at sensitive times, and include provisions for wheel washing and road sweeping / cleaning.
- 2.5.7 Other construction controls, set out in the CMP, include limitations on working hours and measures to control dust and noise and protect nature conservation interests.

³ The CL:AIRE Code of Practice was created with the backing of the UK government in 1999 to encourage the demonstration and research of practical solutions both for the clean up of contaminated land, and to provide a sustainable alternative to disposing of waste in landfill sites. In effect, this enables soil, such as that which will arise from the proposed development, to be “recycled” for use on development sites such as for backfilling, restoration and landscaping, thereby avoiding waste and diverting usable material from landfill sites.

3 Planning Policy Framework and other Considerations

3.1 Introduction

- 3.1.1 This section of the Statement sets out the relevant planning policy context. It summarises the relevant policies contained in local, regional and national planning policy. The section also considers other material considerations.
- 3.1.2 The statutory Development Plan for the site comprises:
- i) The Regional Spatial Strategy for the South East of England (May 2009) - The South East Plan ('SEP')
 - ii) Crawley Borough Local Development Framework – Core Strategy (2007) ('CS');
 - iii) Saved Policies of the Crawley Borough Local Plan (2000) ('CBLP').
- 3.1.3 The Localism Act paves the way for regional plans to be revoked but for the time being the SEP remains extant.
- 3.1.4 Although not yet forming part of the statutory development plan Crawley Borough Council has recently published for consultation its draft Preferred Strategy. This will in due course replace the adopted Core Strategy and Local Plan. This plan is at an early stage in its preparation and can therefore be afforded only limited weight at this time.
- 3.1.5 The National Planning Policy Framework (NPPF) was published in March 2012. Under the transitional implementation arrangements the NPPF advises that full weight is to be given to plans adopted since 2004 (i.e. the CCS) whereas the weight to be attached to adopted policies in plans pre-dating 2004 will depend on their consistency with the NPPF.
- 3.1.6 In 2008 the Council adopted supplementary planning guidance document for Gatwick Airport – *Development at Gatwick Airport Supplementary Planning Document*. This specifically informs the way in which the Council will implement the policies of its adopted Core Strategy in dealing with planning applications and other planning matters related to the airport.
- 3.1.7 Finally the report and recommendations of Sir Michael Pitt into the 2007 floods are material to the determination of this application.

3.2 The Development Plan

South East Plan

- 3.2.1 The most relevant Policies in the SEP are considered to be:

- **Policy T9: Airports.** This supports proposals for the development of Gatwick Airport and provides, in accordance with the Air Transport White Paper 2003, for the safeguarding of land for a second runway.
- **Policy CC2: Climate Change.** This promotes measures to mitigate and adapt to climate change including increasing flood storage capacity.
- **Policy NRM4: Sustainable Flood Risk Management.** As well restricting development that would increase flood risk, this policy also provides for new flood storage schemes to be identified. The consideration of any such proposals is to take into account social and environmental costs and benefits to fisheries, biodiversity and the built and historic environment. The supporting text to this policy explains that to adapt to climate change there is a need to plan to make more space for water through better management of land for water storage and flood protection.
- **Policy NRM2: Water Quality.** This is concerned with maintaining and enhancing water quality through avoiding adverse effects of development on the water environment.
- **Policy NRM5: Conservation and Improvement of Biodiversity.** This seeks to protect and avoid damage to sites of importance to nature conservation.
- **Policy C4: Landscape and Countryside Management.** This encourages positive and high quality management of countryside outside nationally designated landscapes.
- **Policy C6: Countryside Access and Rights of Way.** This seeks to protect and enhance public rights of way and facilitate enhanced access to the countryside.

Crawley Core Strategy

- 3.2.2 Crawley Borough Council adopted its Local Development Framework Core Strategy (Development Plan Document) ('CCS') in November 2007. It sets out the overall approach which the Council will use to guide and control development in the Borough. The CCS does not contain detailed development control policies. These are contained in the Saved policies of the Crawley Borough Local Plan (2000).
- 3.2.3 The CCS refers to the Community Strategy for Crawley which includes a '*Local Environment*' priority "...to protect and improve the quality of the local environment and provide local people with the means to enjoy the surrounding countryside". Section 6 of Part 1 identifies the key issues facing Crawley. Relevant to the proposed development is *Issue 4 Environment – Protecting and improving the quality of the local environment....*"
- 3.2.4 Part 2 of the CCS includes a section on Gatwick Airport. There are two policies:

- **Policy G1.** Relates to development within the airport boundary but states that the Council will support development of facilities that contribute to the safe and efficient operation of the airport.
- **Policy G2.** Identifies land which is to be safeguarded from development which would be incompatible with expansion of the airport with a second runway. The proposed development site is within the safeguarded area.

3.2.5 The other most relevant policies in the CCS are considered to be:

- **Countryside Policy C1.** This seeks to protect the countryside from development and to enhance the countryside through improved access for informal recreation
- **Countryside Policy C2.** This seeks to prevent development in designated strategic gaps. The development site is within the strategic gap between Crawley and Gatwick.
- **Environment Policies EN3 and EN4.** These seek opportunities to add new links to existing rights of way and improve facilities for walkers and to protect and enhance existing landscape, nature conservation and rights of way.

Crawley Borough Local Plan

3.2.6 The Crawley Borough Local Plan ('CBLP') was adopted in 2000. Pursuant to the Planning and Compulsory Purchase Act 2004, the policies were due to expire in September 2004. However the government has directed that many of the policies be 'saved'.

3.2.7 Relevant saved policies are as follows:

- **Policies GD1: Satisfactory Standards of Design and Layout; GD2: Development and its Setting; and GD5: Landscaping and Development.** These apply to all development and seek to ensure high standards of design appropriate to context, setting and neighbouring uses, safeguarding / retention of important natural or built features and replacement planting where loss of existing trees cannot be avoided.
- **Policy GD23: The Water Environment.** States that the Council will not normally permit new development in areas at risk of flooding unless appropriate flood protection and mitigation measures, including the restoration of flood plains are provided.
- **Policy GD34: Construction.** Seeks to controls construction impacts by requiring measures to minimise or avoid impacts of construction on the environment and residential amenity.

- **Policy BN11: Listed Buildings.** Seeks to Protects *inter alia*. the setting of listed buildings.
- **Policy BN17: Archaeology.** Seeks to ensures archaeological interests are appropriately mitigated in developments.
- **Policy C16: Public Access to the Countryside** and **C17: Enhancement of the Countryside.** These promote improved public access to the countryside and improvements to countryside landscape.

3.3 National Planning Policy Guidance

- 3.3.1 The NPPF sets out the Government's planning policies for England and how these are expected to be applied. The NPPF sets out a presumption on favour of sustainable development.
- 3.3.2 The NPPF does not change the statutory status of the development plan as the starting point for decision making, and the legal requirement, as set out in Section 38(6) of the Planning and Compulsory Purchase Act 2004, that applications for planning permission must be determined in accordance with the development plan unless material considerations indicate otherwise.
- 3.3.3 Core Planning principals in the NPPF relevant to the proposed development are:
- *support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change, and encourage the reuse of existing resources, including conversion of existing buildings, and encourage the use of renewable resources (for example, by the development of renewable energy);*
 - *contribute to conserving and enhancing the natural environment and reducing pollution.*
- 3.3.4 The section of the NPPF on Delivering Sustainable Development identifies, amongst other matters, the importance of:
- **Meeting the challenge of climate change, flooding and coastal change.**
“Local planning authorities should adopt proactive strategies to mitigate and adapt to climate change taking full account of flood risk” (para. 95)
 - **Conserving and enhancing the natural environment**
“The planning system should contribute to and enhance the natural and local environment by ... minimising impacts on biodiversity and providing net gains in biodiversity where possible” (para. 109)
“When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:
- *if significant harm resulting from a development cannot be avoided ... adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused*

-
- *planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss” (para. 118)*

- 3.3.5 Alongside the NPPF the government published technical guidance on flood risk, to ensure the effective implementation of the NPPF policies on flood risk. This contains guidance on the consideration of new development within flood risk areas. Water compatible development, such as flood control infrastructure, is regarded as acceptable within flood risk areas.

Other Relevant Considerations

Development at Gatwick Airport SPD (2008)

- 3.3.6 This Supplementary Planning Document (SPD) was adopted by the Council in December 2008. It sets out the way in which CBC will implement policies in relation to Gatwick Airport in the Core Strategy. As such it provides further guidance for the determination of planning applications at the airport.
- 3.3.7 A section of the SPD deals with Water Management. Paragraph 61 notes that GAL will be expected to take a positive role in discussions with the EA and surrounding Local Authorities given the need to reduce the potential risk of flooding.
- 3.3.8 GAL has been undertaking such a role. It has agreed to contribute over £4M to the UMFAS, which will reduce flood risk to the airport and surrounding communities. In addition GAL has continued to work with the EA to explore further ways to reduce flood risk at Gatwick Airport. The proposed development is the culmination of that work.

Crawley Preferred Strategy Consultation Draft

- 3.3.9 The emerging Local Plan includes a policy – **Policy ENV4: Development and Flood Risk** – setting out flood risk considerations. The policies follows the guidance in the NPPF which is to ensure new development in flood risk areas satisfies the sequential and, as appropriate, the exceptions test, and includes appropriate mitigation to ensure any risk is acceptable and not increased elsewhere.
- 3.3.10 Other most relevant emerging policies area:
- **Policy CH3: Normal Requirements of All New Development**
 - **Policy CH12: Development outside the Built-Up Area**
 - **Policy ENV12: Biodiversity**

- **GAT2: Safeguarded Land**

Gatwick Airport Master Plan

- 3.3.11 The new airport Master Plan was consulted on in 2011 and finalised in July 2012. It sets out how GAL expects the airport to develop over the period to 2030.
- 3.3.12 Section 9.8 of the Master Plan refers to GAL's commitment to manage surface water drainage and reduce flood risk. It refers to the work being undertaken by GAL, in discussion with the EA, to understand and explore how flood risk could be reduced so as to provide confidence to operators and partners that Gatwick has sufficient resilience for a stable operating environment. It is these studies that have led to the proposals in this planning application.

The Pitt Review

- 3.3.13 The independent review by Sir Michael Pitt of the summer 2007 floods⁴ made, and the government accepted, a series of recommendations to reduce the vulnerability of critical infrastructure to flooding and other natural hazards⁵. Accordingly the Government established a Critical Infrastructure Resilience Programme with the aim of improving the resilience of critical infrastructure and essential services to severe disruption from natural hazards.
- 3.3.14 Recommendation 52 stated that Government and infrastructure operators should work together to build a level of resilience into critical assets. The Cabinet Office Guide – *Keeping the Country Running: Natural Hazards and Infrastructure* set a benchmark objective that critical infrastructure should not be disrupted by a flood event with an annual likelihood of 1 in 200 years. Gatwick Airport is a critical part of the UK's transport infrastructure. GAL is not at this stage able to bring forward a scheme to protect it from a 1 in 200 flood, but the proposed development will significantly increase its protection from flood risk, reducing and minimising the risks of disruption to operations, inconvenience to passengers and damage to essential infrastructure.

⁴ The Pitt Review: Lessons learned from the 2007 floods (June 2008)

⁵ Recommendations 50 – 54 were concerned with maintaining and protection essential services

4 Appraisal of the Proposed Development against Planning Policy

4.1 Introduction

- 4.1.1 The preceding section of this statement has reviewed and summarised the key relevant policies of the development plan, national policies and other planning considerations.
- 4.1.2 This section of the planning statement explains how the proposed development complies with relevant policy considerations.
- 4.1.3 The key planning considerations that relate to the proposed development are:
- i) The benefits and need for the development
 - ii) Appropriateness having regard to its location in the countryside and strategic gap.
 - iii) Appropriateness in relation to safeguarding for a second runway
 - iv) Biodiversity considerations
 - v) Landscape considerations
 - vi) Footpaths and public access considerations
 - vii) Archaeology and cultural heritage
 - viii) Other planning considerations

4.2 The Benefits and Need for the Proposed Development

- 4.2.1 A review of planning policy is provided in Section 3 of this Statement. In summary policies support the development of Gatwick and recognise the important of the Airport as a critical piece of the UK's transport infrastructure.
- 4.2.2 The need and benefits of the flood attenuation scheme have been set out in Section 2.1.
- 4.2.3 **The development is a response to the recommendations and actions arising from the Pitt Review and the acknowledged need to keep Gatwick Airport open during periods of extreme weather to avoid major disruption and inconvenience that would arise from a closure of the airport.**
- 4.2.4 A detailed Flood Risk Assessment has been prepared which identifies the flood risk benefits and impacts of the development.

-
- 4.2.5 It should be noted that the FRA also considers impact on flooding elsewhere. This reports no increase flooding or risk to Crawley or properties up stream of the development such as on Radford Road, to the STW or to the railway Line.
- 4.2.6 The FRA, does record that the planned removal of the Gatwick Link Flow Gauging Station located at the downstream end of the Gatwick Stream South Terminal culvert⁶ would have a small effect on flooding downstream in Horley for particular flood events in excess of the 1 in 100 year flood. In a 1 in 1000 year storm there could be a further very small decrease in flood risk in Horley over and above the significant benefits that Horley will derive from the UMFAS. But for flood events of between 1 in 100 and 1 in 1000 years there could be a marginal reduction in the flood risk benefits that UMFAS brings to Horley. For the 1 in 100 year plus 25% allowance for climate change the flood risk benefits of UMFAS to Crawley reduce by 60mm, from a 450mm reduction in mean flood depth to 390mm. Overall the UMFAS, which is being realised with significant financial support from GAL, combined with the proposed development, will still see flood risk reducing significantly in Horley. In addition the airport will be free of flooding in a events up to the 1 in 100 year return period.
- 4.2.7 The attenuation embankments will be subject to the **Reservoirs Act**, which will include regular checks by a Panel Engineer appointed under the Reservoirs Act 1975 to ensure there is no risk failure of the dam.
- 4.2.8 The development will offer significant flood risk benefit to the airport. The principle of the proposed development and its overall benefits is supported by SEP policies T9, CC2 and NRM4 and CCS policy G1. It also complies with policy GD23 of the CBLP and supports the achievement of national government objectives to protect critical infrastructure from natural hazards.

4.3 The appropriateness of the development having regard to its location in the countryside and strategic gap

- 4.3.1 The CCS designates the proposed development site as Countryside and Strategic Gap.
- 4.3.2 The design and nature of the proposed development, with the restoration of the site to countryside for grazing land, diversion of river channel, protection of existing important trees, new tree planting and reinstatement of a field pattern defined by hedgerows is considered appropriate and sympathetic to the countryside and strategic gap policies.
- 4.3.3 The profile of the attenuation with gently sloping sides and embankments would also be sympathetic and appropriate to the countryside designation.

⁶ This is a crump weir installed by the EA to measure flow rates in the Gatwick Stream

-
- 4.3.4 The control structure and associated equipment would represent more man made features, but the control structure would sit within the river channel and have a low profile within the embankments. It would not be an intrusive feature. The small control building would be substantially screened by the embankment.
 - 4.3.5 New planting will improve and reinforce existing screening of the railway line and STW.
 - 4.3.6 In respect of the strategic gap the proposed development preserves the open and undeveloped character of the site and therefore does not harm the objective of preventing coalescence of Crawley and Gatwick.
 - 4.3.7 Overall the development has been sympathetically designed to minimise the impacts on and be appropriate to the countryside. The development complies with CCS policies C1 and C2 and saved CBLP policies GD5 and C17.

4.4 Safeguarding for a Second Runway

- 4.4.1 The development site is situated within the boundary of the safeguarded area for a second runway which is to be protected from development that would be incompatible with its the development. The Gatwick Master Plan indicates that the site would be to the east of the second runway and within the general area that would be developed for ancillary uses, which could include parking, surface transport, landscaped areas or for supporting built commercial development.
- 4.4.2 The proposed development does not introduce new built development that would be incompatible with the development of a second runway or its required supporting ancillary developments.
- 4.4.3 The development would alter the profile of the site and lower ground levels but would not introduce new built development that would need to be demolished or add materially to the complexity of the development of a second runway. Indeed in the event that the site did need to be developed for facilities associated with a second runway the nature of the proposed development does not change the character or constraints on the site. The site would, as it is today, be an area of countryside that would be at risk of flooding, but the development of a second runway would inevitably require a wholly new approach to addressing the flood risk impacts arising from further development.
- 4.4.4 The proposals have been discussed with the aerodrome and second runway safeguarding team at GAL and they concur with these views.
- 4.4.5 The proposed development is therefore not incompatible with the need to safeguard for the second runway and complies with SEP policy T9, CCS policy G2 and Crawley Preferred Strategy Consultation Draft Policy GAT2.

4.5 Biodiversity Considerations

- 4.5.1 Potential impacts associated with the proposed development are identified in the Ecological Impact Appraisal. The LAEMES sets out the strategy for delivering the required mitigation to ameliorate the identified scheme impacts. Additionally, it sets out the strategy for delivering a suite of enhancement measures to ensure that the scheme delivers an overall net biodiversity gain.
- 4.5.2 The mitigation will focus on:
- i) Avoidance measures to ensure that there are no impacts associated with breeding birds and bats;
 - ii) Protection of veteran trees
 - iii) Transplanting selected existing hedgerow stock. Storing the root balls during the construction period and then using these plants to re-establish hedge lines on the completed site will also ensure that vegetation is established more quickly (in comparison with using whips) and will retain the existing, overall, ecological character of the site.
- 4.5.3 Enhancements to the Gatwick Stream will include the use of appropriate riverside planting of the realigned section of the Gatwick stream, within the requirements of airport safeguarding and ensuring there is no increased risk of bird strikes. The use of in-channel features such as deflectors and log weirs will be incorporated into the realigned section of the Gatwick stream to enhance its ecological and morphological function and the overall botanical diversity of the stream.
- 4.5.4 The enhancement proposals will provide a suite of proposals for enhancing the overall ecological value of the site. This will involve a strategy for new tree planting, and re-establishing the hedgerow network.
- 4.5.5 It is the overall intention of the enhancement strategy to provide a net gain in biodiversity as a result of the construction and after use of the proposed scheme.
- 4.5.6 The development affords protection to biodiversity and offers biodiversity enhancements. It complies with SEP policy NRM5, CCS policy EN4, saved CBLP policy C17 and Crawley Preferred Strategy Consultation Draft policy ENV12.

4.6 Landscape Considerations

- 4.6.1 Although the development will lead to the loss of trees and hedgerows on the proposed site, the design avoids impacts on the most important mature trees on the site. The loss of the trees and hedgerows is mitigated, as proposed in the LAEMES, through:
- i) the transplanting of as much as possible of the existing hedgerow stock to a holding area and their relocation back to the attenuation area upon completion of the engineering works

- ii) replacement planting of new tree groups to link 'islands' of trees retained within the attenuation area and
- iii) new tree planting to fill in gaps within the existing tree belts adjacent to both the railway and the STW.
- iv) New hedgerow planting to re-establish the field pattern

4.6.2 The development will retain the open countryside character to the landscape on the site.

4.6.3 The proposed development complies with SEP policy C4, CCS Policy EN3 and EN4, Saved CBLP Policy C17.

4.7 Footpaths and Public Access

4.7.1 The development does not impact on any existing footpaths but does propose a further improvements to the network of official and permissive paths in this area of countryside, including a new permissive footpath to the west of the STW and east of the railway line which will connect up existing footpaths to the north of the STW (FP360Sy) with the existing public footpath (FP3377) that terminates on the southern edge of Radford Road. In so doing the development will enhance the recreational value of the countryside, providing new recreational access to the relatively open fields located to the south west of the STW and to the Gatwick Stream as a landscape and ecological resource.

4.7.2 These proposals have been prepared in discussion with local residents and build on improvements to countryside access that GAL are making in the surrounding area.

4.7.3 The development enhances the overall network of paths. The development offers benefits in terms of countryside access and complies with SEP policy C6, CCS policies EN3 and EN4, saved CBLP policy C16.

4.8 Archaeology and Cultural Heritage

4.8.1 Archaeological investigations have been undertaken in accordance with best current practice and the requirements of guidance documents by the Institute for Archaeologists and in liaison with the Senior Archaeologist of the Strategic Planning Division at West Sussex County Council.

4.8.2 The archaeological investigations comprised desk-based assessment, field reconnaissance and trial trenching. The results of these investigations together with proposals for consideration of further mitigation are presented in the Archaeological Assessment .

4.8.3 The conclusion of the archaeological investigations is that the known heritage assets, which might be affected by the proposed development, are of local and regional importance and that the overall archaeological potential is medium. It is considered that any concerns relating to archaeology can be dealt with by the imposition of a

planning condition requiring the implementation of a programme of further archaeological work (i.e. preservation by record) in accordance with a Written Scheme of Investigation to be agreed with the Strategic Planning Division at West Sussex County Council. The proposed development is therefore not likely to have any significant adverse effect upon cultural heritage.

- 4.8.4 The proposed reservoir has the potential to affect the setting of the Grade II Listed Oldlands Farmhouse. In particular, it could affect views to the north-west. Soft screening, however, will alleviate this potential affect. Furthermore, this slight change when considered in the context of the incoherent nature of the existing landscape, means that the overall impact on the listed building would be small.
- 4.8.5 Thirteen of the existing hedgerows within the application area meet the archaeological criteria for important hedgerows, as defined in the Hedgerow Regulations. However, these potential ancient boundaries represent an incomplete fragment of enclosure lying within an incoherent rural landscape. The entire or partial removal of the boundaries would have low adverse effect upon the historic landscape.
- 4.8.6 The development complies with Saved CBLP policies BN11 and BN17.

4.9 Other Planning Considerations

Aerodrome Safeguarding

- 4.9.1 The development has been subject to pre-application consultation with Gatwick Aerodrome Safeguarding.
- 4.9.2 Due to the very limited number of occasions when the site is predicted to impound with flood water (i.e. on a 1 in 50 year basis) and the relatively short period that flood water would remain in the attenuation area, GAL Aerodrome Safeguarding are content that the water body will not, at these times, present a significant bird attractant safety threat.
- 4.9.3 Discussions with Gatwick Aerodrome Safeguarding have also informed the design of the proposed river diversion channel and replacement planting to ensure these features do not increase the attractiveness of the site to species of birds that present the greatest risks to aircraft safety either in the short term or long term.
- 4.9.4 The requirement to avoid water bodies forming in the reservoir from rain falling on the site during periods when the reservoir area cannot drain freely due to high water levels in the Gatwick Stream has also lead to the inclusion of the small pumping station.
- 4.9.5 The CMP explains how construction will be managed to avoid water bodies forming during earthworks and to ensure that the re-seeding will be managed in a way which avoids attracting birds.

Construction

- 4.9.6 The CMP explains the construction methodology and identifies the steps and measures that will be taken to ensure that the temporary construction impacts, both on residential amenities and biodiversity, will be minimised.
- 4.9.7 The main construction activity will be the earth moving associated with excavation of the attenuation area, the formation of the embankments and new river channel and the transport of surplus material. These works are expected to take 6 – 9 months dependant on weather conditions. Thereafter site restoration will take place.
- 4.9.8 The impacts most likely to affect residential amenity will be the impacts of construction lorries along Radford Road and noise and dust from on site activities. All construction lorries will be directed to depart and arrive to / from the west via the strategic road network. The total number of trips will be small in comparison to existing levels of traffic on Radford Road and the strategic road network.
- 4.9.9 The improvements to the STW access road will enhance road safety. These works are proposed to be retained for the future benefit of traffic accessing the STW.
- 4.9.10 A number of interventions will take place to minimise noise and dust including good working practices, dust suppression techniques such as spraying and damping down, wheel washing and road cleaning. Working hours on site will be limited to Mondays to Fridays 0800 to 1800, except on occasions where it is essential that out of hours works takes place.
- 4.9.11 An Ecological Clerk of Works will oversee activities that have the potential to impact biodiversity. Trees to be retained will be protected, and tree and hedgerow removal will take place according to seasonal restrictions to protect bats and breeding birds.
- 4.9.12 The CMP includes the appropriate measures to minimise temporary construction impacts on the environment and residential amenity. The development complies with Saved CBLP policy GD34.

5 Conclusions

- 5.1.1 The proposed development is for a flood attenuation project on the Gatwick Stream immediately to the south east of Gatwick Airport.
- 5.1.2 The development has been designed to double the level of protection to the airport from flood risk to a 1 in 100 year level of protection. The proposed development includes the diversion of a short section of the Gatwick Stream together with associated landscape, access and ecological mitigation and enhancement works.
- 5.1.3 The development responds to recommendations and actions arising from the report of Sir Michael Pitt into the floods which caused major damage and disruption to parts of the UK in 2007, which included a need to protect critical infrastructure from natural hazards. The development will increase the level of protection from that which will be achieved from the UMFAS which benefits Gatwick and the wider area.
- 5.1.4 The design, layout and profile of the attenuation area, stream diversion and restoration proposals reflect discussions and consultation with key statutory and local stakeholders. It has been carefully considered to minimise local environmental, landscape and ecological impacts. The LAEMES puts in place a strategy to ensure that impacts on landscape and biodiversity are mitigated, and at the same time sets out a range of enhancements to improve the landscape, countryside access and biodiversity. After completion of the development the site would continue to be an area of countryside. The development would retain the Crawley – Gatwick Strategic Gap.
- 5.1.5 The development would not be incompatible with the safe operation of the existing airport or with the identified requirement to safeguard for a second runway.
- 5.1.6 Overall the development protects the operation of Gatwick Airport and complies with policies of the development plan. It also complies with and supports objectives of national policy including the NPPF, emerging policy and Supplementary Planning Guidance.