



THAKEHAM

---

Redhill Aerodrome  
New Garden Community 

---

# Review of Infrastructure Feasibility

October 2017





Thakeham Homes

---

# **REDHILL AERODROME GARDEN VILLAGE**

Review of Infrastructure Feasibility



Thakeham Homes

---

# REDHILL AERODROME GARDEN VILLAGE

## Review of Infrastructure Feasibility

**TYPE OF DOCUMENT (VERSION) PUBLIC**

**PROJECT NO. 62241136**

**OUR REF. NO. TN09**

**DATE: OCTOBER 2017**

WSP  
Export House  
Cawsey Way  
Woking, Surrey  
GU21 6QX

[WSP.com](http://WSP.com)



# QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Draft	Final		
Date	21 Sept 2017	09 Oct 2017		
Prepared by	S. Howard	S. Howard		
Signature				
Checked by	M. Paddle	M. Paddle		
Signature				
Authorised by		M. Paddle		
Signature				
Project number	62241136	62241136		
Report number	TN09	TN09		
File reference	V1.0	V1.3		



# CONTENTS

1	INTRODUCTION	1
2	FLOOD RISK	2
3	AIR QUALITY	6
4	NOISE	9
5	UTILITIES	11
6	CONCLUSION	14

---

---

## ***FIGURES***

Figure 1 – Flood Risk for Planning Map

3



# 1 INTRODUCTION

---

- 1.1.1. Thakeham Homes have requested WSP to produce a feasibility review of the transport and infrastructure requirements to support a new Garden Village at Redhill Aerodrome. The current proposed Garden Village includes 6,500 homes alongside education, employment, and community facilities.
- 1.1.2. This review sets out the requirements and proposals for the following disciplines:
- Flood Risk;
  - Air Quality;
  - Noise; and
  - Utilities.

## 2 FLOOD RISK

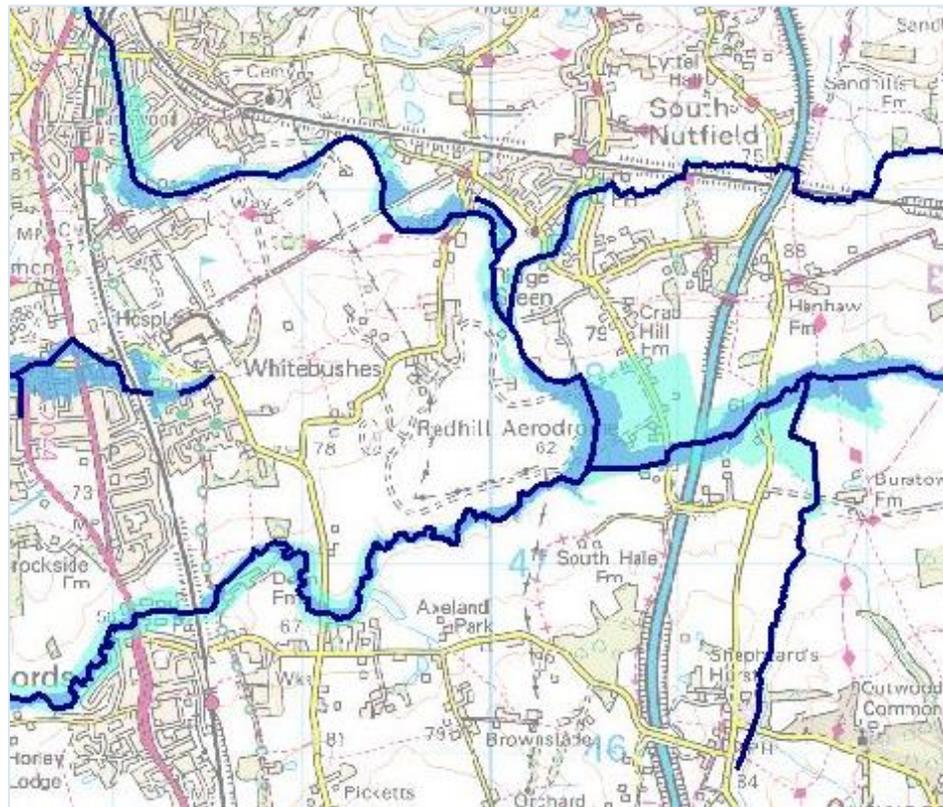
---

- 2.1.1. A desktop review of flood risk to the Redhill Aerodrome Area of Technical Assessment has been undertaken. This has focused on establishing the baseline level of flood risk and potential opportunities for maximising the developable land within the Area of Technical Assessment whilst ensuring there is no increase in flood risk on or off-site post development; in accordance the National Planning Policy Framework (NPPF) and the Planning Practice Guidance (PPG). A separate Topic Paper has been prepared and accompanies this review.
- 2.1.2. The Environment Agency's (EA) existing hydraulic model of Redhill Brook and Salford Streams has been reviewed, updated and recalibrated in order to provide greater clarity on the existing fluvial flood risks. Hydraulic impacts of the identified mitigation measures will also be checked with the updated hydraulic model.

### 2.2 AREA OF TECHNICAL ASSESSMENT BASELINE

- 2.2.1. There are two watercourses within the Area of Technical Assessment; Redhill Brook and Salfords Stream passes through the Area of Technical Assessment. Redhill Brook currently passes through a culvert under the existing grass runways.
- 2.2.2. The Area of Technical Assessment is partially located in Environment Agency (EA) Flood Zones 2 & 3 (Figure 3). However, there is a culvert in the main flood risk area which contributes towards flooding. Culverts are often a big factor in flooding problems so removing them is almost always the way to go if the constraints allow. There would be a positive response from the EA for de-culverting; and along with other mitigation measures will provide wider benefits in terms of habitat creation and reduced flood risk.

Figure 1 – Flood Risk for Planning Map



## 2.3 HYDRAULIC MODELLING

- 2.3.1. A site visit was undertaken by Mouchel (now WSP) water engineers on 19.05.2017 to acquire first-hand knowledge of the condition of the channel/structures and nature of the floodplain. The suitability of the Manning roughness values used in the existing EA hydraulic model were also assessed during the site visit. Similarly, the model representation of the Redhill Brook culvert and other structures was also checked to assist with hydraulic model validation.
- 2.3.2. The desk top review followed by detailed hydraulic modelling work has identified the principal flood risk to the Area of Technical Assessment as being from fluvial (watercourse) sources: Redhill Brook and Salfords Stream pass through the Area of Technical Assessment. This is consistent with the findings from the Tandridge District Council Spatial Approaches to Sites Consultation.
- 2.3.3. The fluvial flood risk to the Area of Technical Assessment is outlined approximately in Figure 3 which indicates that the majority of the Area of Technical Assessment area is located outside the EA flood extent map and therefore the proposed development is considered appropriate in these areas.
- 2.3.4. The EA's original 1D-2D (Flood Modeller – TUFLOW) hydraulic model of the Redhill Brook and Salfords Stream has been reviewed, updated and recalibrated to assess the fluvial flood risk to the Area of Technical Assessment in more detail. Other sources of flooding to the Area of Technical Assessment have also been assessed alongside the hydraulic modelling works. This updated hydraulic model has improved the

representation of existing fluvial flood risk at the Area of Technical Assessment and provided confidence in the suitability of the model for developing flood risk mitigation options moving forward.

2.3.5. A summary of the key conclusions from the assessment of the existing flood risk and hydraulic modelling work undertaken to date are presented below:

- The majority of the Area of Technical Assessment (approximately 90%) is located in Flood Zone 1 (<0.1% AEP) and is at low probability of fluvial flooding. Part of the Area of Technical Assessment (approximately 6%) is located in Flood Zone 2 (1% - 0.1% AEP) and is at medium probability of fluvial flooding; and a small part of the Area of Technical Assessment (approximately 4%) is located in Flood Zone 3 (>1% AEP) and is at high probability of fluvial flooding.
- The modelling confirms that there is a significant difference in water levels between the upstream and downstream faces of the 300m long culverted section of Redhill Brook; close to its confluence with Salfords Streams. This confirms that there may be potential to reduce the extent of the floodplain in this part of the Area of Technical Assessment by replacing the culvert with an open channel.
- The hydraulic modelling undertaken has also considered the anticipated impacts of climate change through taking account of the current EA climate change guidance (April 2016). The Upper End category, 2070 to 2115, 70% increase in peak river flow scenario represents the worst case situation with an estimated maximum increase in water levels of 0.41m on the Area of Technical Assessment. The potential impacts of climate change, during the lifespan of the development, will be accounted for in the design and planning of the development.
- The Area of Technical Assessment is not at risk of flooding from the sea due to its elevation above sea level.
- The majority of the Area of Technical Assessment is identified as being at 'very low' risk of surface water flooding based on the EA's Risk of Flooding from Surface Water Mapping, with small areas of Low to High risk surrounding the watercourses passing through the Area of Technical Assessment. It is considered that this risk can reasonably be managed through a suitably designed surface water drainage system.
- The Area of Technical Assessment is not situated within one of the EA's Major Aquifer High Groundwater Vulnerability Zones and therefore, based on the information available, is considered to be at low risk of flooding from groundwater.
- The Area of Technical Assessment is not located within the maximum flood extent area for reservoirs and there are no other known artificial sources of flood risk to the Area of Technical Assessment. Therefore, based on the information available, the Area of Technical Assessment is considered to be at low risk of flooding from artificial sources.

## 2.4 FLOOD MITIGATION

2.4.1. The flood risk modelling and assessments will also consider the opportunities for flood mitigation measures to be incorporated within the development to reduce flood risk and maximise the developable land within the Area of Technical Assessment.

2.4.2. The two key mitigation measures identified at this stage are:

- 1. Removing the Redhill Brook culvert: The hydraulic modelling has confirmed that there is a significant difference in water levels between the upstream and downstream faces of the 300m long Redhill Brook culvert. Removing the culvert and re-profiling the flood plain in this area would return this section of the watercourse to a natural open channel, reducing flood risk and providing wider environmental and amenity benefits to the development and also the surrounding area. The EA is also very supportive of the de-culverting of Main River watercourses such as Redhill Brook; and
- 2. Provision of surface water storage features (SuDS): These would be provided within the Redhill Brook and Salfords Stream corridors. The features would provide attenuation for surface water runoff, naturally compensate for any loss of floodplain storage and provide wider environmental and amenity benefits to the development and also the surrounding area.

## 2.5 NEXT STEPS

- 2.5.1. Identified potential flooding mitigation measures will be investigated in further detail to confirm their hydraulic effectiveness. This will also entail assessment of the requirement for any compensatory flood storage post development; and development of the design and layout of the flood mitigation measures in more detail. The updated hydraulic model will be used to test the impact of the identified flood mitigation measures.

## 2.6 WIDER STRATEGIC BENEFIT

- 2.6.1. The proposed garden village development will reduce the flood risk within the Area of Technical Assessment and immediate surrounding area. Removing the man-made culvert would return Redhill Brook to a natural open channel, which would reduce flood risk, and improve water quality. It would also provide a wider environmental and amenity benefit to the development and also the surrounding area through creating areas of greater biodiversity and ecological value.

## 2.7 SUMMARY

- 2.7.1. In summary, the Area of Technical Assessment at Redhill Aerodrome offers a great opportunity to create a sustainable community for new residents. There are no high level technical flooding and drainage constraints which would prevent the Area of Technical Assessment from progressing and significant opportunities to reduce flood risk and improvement the water environment. Therefore the Area of Technical Assessment is available, deliverable, and suitable for a new settlement.

## 3 AIR QUALITY

---

### 3.1 AREA OF TECHNICAL ASSESSMENT BASELINE

- 3.1.1. Tandridge District Council (TDC) and Reigate and Banstead Borough Council (RBBC) undertake passive nitrogen dioxide monitoring with diffusion tubes at various locations across the boroughs. The diffusion tubes closest to the proposed Area of Technical Assessment are located 2km away within Nutfield, to the northeast and Redhill, to the northwest.
- 3.1.2. TDC's 2015 Updating and Screening Assessment determined that there had been no exceedances of the national air quality objectives in recent years at nearby passive monitoring sites. According to the most recent diffusion tube monitoring data obtained from RBBC, the diffusion tubes closest to the Area of Technical Assessment have met the objectives in recent years. These tubes are located within towns, and likely to have higher concentrations than the rural surrounds, therefore it is anticipated that exceedances of the objectives are unlikely within the Area of Technical Assessment.
- 3.1.3. RBBC undertake continuous automatic monitoring at Horley and Gatwick Airport, 4km to the south. Concentrations of NO<sub>2</sub> and PM<sub>10</sub> have met the national air quality objectives at these locations within the last five years.
- 3.1.4. The nearest Air Quality Management Area is over 2km to the northwest of the proposed development, within the town of Redhill.
- 3.1.5. The Defra mapped background levels applicable to the Area of Technical Assessment predict annual mean concentrations of NO<sub>2</sub> and PM<sub>10</sub> at 12.8 µg/m<sup>3</sup> and 14.6 µg/m<sup>3</sup> respectively in 2016, well below the annual mean national objectives (40 µg/m<sup>3</sup>).
- 3.1.6. As the M23 motorway runs adjacent to the east of the proposed Area of Technical Assessment, development-specific baseline air quality monitoring is necessary to assist in the assessment of suitability for residential use. This is particularly with respect to levels of NO<sub>2</sub> – a key pollutant of concern with respect to human health in proximity to roads.

#### DEVELOPMENT-SPECIFIC BASELINE AIR QUALITY MONITORING

- 3.1.7. Given that the M23 motorway runs immediately east of the proposed Area of Technical Assessment, baseline NO<sub>2</sub> monitoring is required to confirm the suitability of the Area of Technical Assessment for residential use and to inform the local air quality impact assessment associated with the operation of the development.
- 3.1.8. WSP commenced a baseline monitoring programme in November 2016 to establish existing concentrations of NO<sub>2</sub> at and in proximity to the proposed Area of Technical Assessment. A total of 18 monitoring points were chosen, providing an adequate representation of baseline air quality within the Area of Technical Assessment and near to the M23, in addition to sensitive locations adjacent to existing roads (e.g. A23) and potentially sensitive locations with respect to the proposed development and east-west Link Road options. The monitoring survey will encompass a minimum of 12 months.

- 3.1.9. Whilst providing existing baseline information to inform the suitability of the Area of Technical Assessment for residential use, the data gained from this survey will also be used to verify air quality modelling undertaken as part of the detailed air quality assessment.

## **3.2 DEVELOPMENT IMPACT**

- 3.2.1. The proposed development would incorporate a new east-west Link Road connecting M23 to the A23, via the proposed Garden Village. A number of options were made available for an initial appraisal to be completed. This included appraising the potential pros and cons of each route with respect to local air quality. Potential implications included the alleviation of traffic and congestion on local roads – thereby reducing vehicle emissions and benefitting local air quality at existing sensitive locations – whilst also considering the potential for both existing and new sensitive locations to be adversely affected by an increase in vehicle movements resulting from the proposed east-west Link Road.
- 3.2.2. The increase in vehicle emissions resulting from the Link Road and operation of the proposed development may be offset by the removal of emissions sources associated with the aerodrome operation.
- 3.2.3. The appraisal of the concept plan for the proposed development considered the potential for sensitive receptors (e.g. residential, education, health centres) to be exposed to elevated levels of air pollution. The existing low background levels of NO<sub>2</sub> and particulates within the Area of Technical Assessment, as indicated by Defra data, increase the likelihood that the Area of Technical Assessment will be suitable for such sensitive uses. However, there remains the potential for elevated levels of these pollutants to exist at sensitive receptors introduced to the Area of Technical Assessment, particularly in proximity to the M23 and the proposed east-west Link Road associated with the development. Any mitigation required for these sensitive receptors will be provided at the development.
- 3.2.4. Given the UK Government's commitment to cease the sale of new petrol and diesel cars and vans from 2040, there is potential for air quality to improve across the country as a result of lowering vehicle emissions as these vehicles are phased to be out and the use of Ultra Low Emission Vehicles (ULEVs) increases. Therefore, there is the opportunity for the Redhill development to incorporate electric vehicle charging infrastructure for each proposed land use (e.g. residential, office, retail land use) to promote the uptake of ULEVs and thus improvements to local air quality.
- 3.2.5. The Ashdown Forest SAC contains a number of sensitive habitats which are particularly susceptible to changes in nitrogen deposition, one of the major local sources of which is vehicle emissions. The 'Ashdown Forest SAC - Method for Air Quality Monitoring and Assessment of Nitrogen Deposition' document produced for WDC in July 2013 states that the area within the forest closest to A22 is particularly sensitive to changes in vehicle emissions. The likely traffic impact (and therefore the associated increase in emissions) along A22 near to the Ashdown Forest as a result of development within the Area of Technical Assessment is minimal given that the Area of Technical Assessment is some 18km from the northern edge of the Ashdown Forest, and the main corridor south of the Area of Technical Assessment is M23/A23, not A22. The impact of development within the Area of Technical Assessment on the Ashdown Forest SAC is therefore considered to be negligible.

### 3.3 NEXT STEPS

- 3.3.1. A detailed air quality assessment will be produced to support any future planning application and will consider both construction and operation phases of the proposed development, including the associated east-west Link Road. Given the proposed introduction of sensitive receptors close to M23 motorway and the proposed east-west Link Road, the suitability of the Area of Technical Assessment for these land uses will be assessed, in addition to the potential local air quality impacts at existing sensitive receptors located off-site and adjacent to affected local roads. The methodology for the air quality assessment would be agreed through consultation with the local authority's environmental health department.
- 3.3.2. In addition to the initial appraisal of development options, the outcomes of both the baseline monitoring survey and detailed air quality impact assessment will enable potential adverse local air quality impacts to be identified at an early stage of the planning process.
- 3.3.3. If significant adverse air quality impacts are predicted as a result of the development at existing and/or proposed sensitive locations, mitigation measures would be identified for inclusion within the design of the final masterplan. This would ensure there are no barriers to development in terms of air quality.
- 3.3.4. Mitigation is likely to include the following measures:
- All gas-fired boilers should meet a minimum standard of <40 mgNO<sub>x</sub>/kWh;
  - The provision of at least 1 Electric Vehicle (EV) "rapid charge" point per 10 residential dwellings (and/or 1,000m<sup>2</sup> of commercial floorspace). Where on-site parking is provided for residential dwellings, EV charging points for each parking space should be made.
  - Provision of a detailed travel plan (with provision to measure its implementation and effect), which sets out measures to encourage sustainable means of transport (public, cycling and walking) via subsidised or free-ticketing, improved links to bus stops, improved infrastructure and layouts to improve accessibility and safety.

### 3.4 SUMMARY

- 3.4.1. Through a review of the latest local authority air quality management documents, it is established that there have been no exceedances of the national air quality objectives in recent years at nearby air quality monitoring sites. The nearest Air Quality Management Area (AQMA) is over 2 km to the northwest of the Area of Technical Assessment, within the town of Redhill.
- 3.4.2. Furthermore, the Defra mapped background levels applicable to the proposed development Area of Technical Assessment predict concentrations of key pollutants of concern – nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>) – well below the respective annual mean limit values for the protection of human health.
- 3.4.3. In summary, the Area of Technical Assessment at Redhill Aerodrome offers a great opportunity to create a sustainable community for new residents. There are no high level technical air quality constraints that would prevent the Area of Technical Assessment from progressing. Overall the Area of Technical Assessment is therefore available, deliverable, and suitable for a new settlement.

## 4 NOISE

---

### 4.1 AREA OF TECHNICAL ASSESSMENT BASELINE

- 4.1.1. Through a review of Defra's Strategic Noise Mapping, daytime road traffic noise levels are predicted to be greater than 55 dB LAeq,16h for the eastern half of the Area of Technical Assessment, and during the night the majority of the Area of Technical Assessment exceeds 50 dB LNight. Rail noise does not appear to affect the Area of Technical Assessment, with the daytime noise associated with both the Brighton Main Line and the Redhill to Tonbridge Line not affecting the Area of Technical Assessment.
- 4.1.2. Development of the Area of Technical Assessment will consider and show how the design minimises the impacts of noise, with planning conditions and mitigation to control noise clearly identified.
- 4.1.3. Mouchel (now WSP) completed baseline monitoring surveys in November 2016 to establish existing noise levels at sample locations within the existing aerodrome site boundary. A long term unattended measurement was selected in the east of the Area of Technical Assessment, near to M23. A short term noise attended survey was also completed in the west of the Area of Technical Assessment. The existing baseline information was then collected to inform the suitability for residential use; the data gained from this survey will also be used to set noise thresholds for construction work.

### 4.2 DEVELOPMENT IMPACT

- 4.2.1. The noise levels over the majority of the Area of Technical Assessment are within acceptable levels for residential development. For the eastern parts of the Area of Technical Assessment closest to the M23 the daytime level is above 65 dB LAeq,16h and 65 dB LNight. At these levels planning conditions and mitigation to control noise would normally be required to demonstrate that significant adverse noise impact will be mitigated. For properties exposed to the highest noise levels closed windows/sealed facades may be required to achieve internal levels. If noise levels in gardens are likely to exceed 55 dB LAeq,16h, the development may need to provide access to a quieter external amenity space.
- 4.2.2. The proposed development would incorporate a new east-west Link Road connecting to M23 to the A23, via the proposed Garden Village. Potential implications of the east-west Link Road include the alleviation of traffic and congestion on local roads, thereby reducing noise levels at existing sensitive locations, whilst also considering the potential for both existing and new sensitive locations to be adversely affected by an increase in vehicle movements resulting from the proposed east-west Link Road.
- 4.2.3. The appraisal of the concept plan for the proposed development considered the potential for sensitive receptors (e.g. residential, education, health centres) to experience noise impact. The current masterplan shows education zones are set back from the M23 motorway and link road, other buildings within the development will provide shielding. The employment zone would act as a barrier to road noise from the M23. The shielding will result in a reduction in noise impact for receptors that are located to the west of this development.

## 4.3 NEXT STEPS

- 4.3.1. A detailed noise assessment will be required for both construction and operation phases of the proposed development, including the associated east-west Link Road. Given the proposed introduction of sensitive receptors close to the M23 motorway and the proposed east-west Link Road, the suitability of the Area of Technical Assessment for these land uses will be assessed, in addition to the potential local noise impacts at existing sensitive receptors located off-site and adjacent to affected local roads. The methodology for the noise assessment would be agreed through consultation with the local authority's environmental health department.
- 4.3.2. In addition to the initial appraisal of development options, the outcomes of both the baseline monitoring survey and detailed noise impact assessment will enable potential adverse local noise impacts to be identified at an early stage of the planning process.
- 4.3.3. Where significant adverse noise impacts are predicted as a result of the development at existing and/or proposed sensitive locations, mitigation measures would be identified for inclusion within the design of the final masterplan. This would ensure there are no barriers to development in terms of noise.
- 4.3.4. Where possible and within reason, the proposed development would:
- Locate dwellings (and gardens) away from M23;
  - Consider allowing for screening M23, e.g. earth bund, fencing;
  - Locate non-habitable rooms on facades facing noise sources, M23 and Brighton Main Line), e.g. bathrooms, kitchens. This is particularly important for properties at the east and west edges of the development; and
  - Orientate buildings to provide screening to gardens. Again, this is particularly important for properties at the east and west edges of the development.

## 4.4 SUMMARY

- 4.4.1. In summary, the Area of Technical Assessment at Redhill Aerodrome offers a great opportunity to create a sustainable community for new residents. There are no high level technical noise constraints that would prevent the Area of Technical Assessment from progressing. Overall the Area of Technical Assessment is therefore available, deliverable, and suitable for a new settlement.

## 5 UTILITIES

---

### 5.1 AREA OF TECHNICAL ASSESSMENT BASELINE

- 5.1.1. The existing site-wide infrastructure services benefit from the existing utilities serving the Aerodrome. There are also nearby major utilities given the significant existing development in the surrounding area.

### 5.2 DEVELOPMENT IMPACT SURFACE WATER

- 5.2.1. The drainage strategy for the Area of Technical Assessment (both foul and surface water) will relate primarily to the allowable rates of discharge into existing watercourses and sewers. The likely discharge location for the majority of the surface water generated on site will be into the existing watercourses passing through and adjacent to the site – Redhill Brook, Nutfield Brook (to the north), Salfords Stream (to the south).
- 5.2.2. It is anticipated that Greenfield runoff rates would apply to this development and, with the expected increase in impermeable area on site, attenuation of surface water will be required. The Area of Technical Assessment provides significant opportunities for the use of SuDS features such as ponds and swales; particularly in the corridor of existing watercourses Redhill Brook and Salfords Stream. These features would provide wider environmental and amenity benefits to the development and also the surrounding area.
- 5.2.3. A ‘Secondary A Superficial Deposit’ aquifer status is associated with the existing watercourses passing through the Area of Technical Assessment. As a consequence, there is likely to be a constraint in the use of infiltration drainage systems within the Area of Technical Assessment and water quality treatment is likely to be required prior to discharge of surface runoff. The use of SuDS features presents a good opportunity to improve water quality naturally prior to discharge to watercourses.
- 5.2.4. The topography of the Area of Technical Assessment is generally flat. However, there is a gentle slope from north-east to south-west. Where possible the drainage provision within the Area of Technical Assessment should utilise this slight fall in gradient to support gravity discharge (and self-cleansing pipe velocities) of both surface and foul water and avoid the requirement for more costly pumped drainage systems.

### FOUL SEWERAGE

- 5.2.5. Redhill Aerodrome is at the boundary of the operating areas for Thames Water and Southern Water, so there is potential to engage with both to find the most economical solution. The nearest large sewage treatment works (STW) is at Earlswood and is operated by Thames Water. It is just over one kilometre to the west of the Area of Technical Assessment at the nearest point and there is an existing large sewer transferring sewage from the area to this STW.
- 5.2.6. As the STW is a regional large works and already takes flows generated from the proposed development area, it should be able to readily provide capacity for the proposed development within its current headroom or with limited extra capacity provided.

- 5.2.7. The Sewerage Undertaker is responsible for providing sewage treatment capacity through their 5-year Asset Management Programmes (AMPs), therefore sufficient treatment capacity should be provided for the planned development in the STW catchment.

### **WATER SUPPLY**

- 5.2.8. Water Supply in the area is provided by Sutton and East Surrey Water (SES). SES has advised that they can provide bulk water supplies for the proposed development, but that it is likely that some local reinforcements will be needed to connect the Area of Technical Assessment to their trunk supply systems. Bulk water supplies and treatment sources are provided by water companies through their AMPs and should make provision for the planned development in each planning area.

### **ELECTRICITY SUPPLY**

- 5.2.9. UK Power Networks (UKPN) is the Distribution Network Operator (DNO) for the area.
- 5.2.10. Given the existing on site uses there is significant existing electricity distribution in the area which would be able to supply the first phases of the proposed development. There are also larger 33kV circuits nearby that could readily provide capacity for the whole development including potential larger commercial demands.

### **GAS SUPPLY**

- 5.2.11. Southern Gas Networks (SGN) is the Gas Distribution Network Operator (GDNO) for the area, and will provide necessary off-site reinforcements, even where these are major works. There are also nearby medium and higher pressure mains, so additional capacity can readily be provided as the proposed development is built out. The supply of new gas infrastructure for the development is therefore available.

### **TELECOMMUNICATIONS**

- 5.2.12. There is a fibre optic communications cable passing through the area along Kings Mill Lane operated by the Zayo Group. This will provide some competition in the provision of high speed communications to the proposed development, as British telecommunications (BT) are also obliged to provide new connections for new developments.

### **MAJOR AND HAZARDOUS PLANT**

- 5.2.13. A database search has been carried out for major utility plant. It also included checking with the HSE to see if there is any hazardous plant such as high pressure (HP) gas mains with consultation distances (CDs) affecting the Area of Technical Assessment. WSP's initial searches found no major or hazardous plant that affects the Area of Technical Assessment.

## **5.3 NEXT STEPS**

- 5.3.1. The next stage would be to confirm the quantum of development and estimate the demand generated by the proposed development. We would then request budget estimates and capacity enquiries from the utility companies that provide services in the area to confirm how they would provide the supplies and the cost profile.



5.3.2. Given the existing operations within the Area of Technical Assessment, there will be existing utility supplies that would be able to provide for the first phases of the development while any new larger networks are procured.

## **5.4 SUMMARY**

5.4.1. In summary, the Area of Technical Assessment at Redhill Aerodrome offers a great opportunity to create a sustainable community for new residents. There are no high level technical utilities constraints that would prevent development within the Area of Technical Assessment from progressing. Overall the Area of Technical Assessment is therefore available, deliverable, and suitable for a new settlement.

## 6 CONCLUSION

---

- 6.1.1. This review of local infrastructure confirms that development of a potential Garden Village at Redhill Aerodrome is available, deliverable and suitable. Improvements will be planned and implemented to accommodate forecast demand and where appropriate provide wider community benefits to existing residents and businesses.



Export House  
Cawsey Way  
Woking, Surrey  
GU21 6QX

[wsp.com](http://wsp.com)



# THAKEHAM

---

David Lock Associates  
Town Planning and Urban Design



savills

ead  
ecology



DAVIESLANDSCAPE  
ARCHITECTS



Meeting Place  
Communications  
[www.meetingplacecommunications.com](http://www.meetingplacecommunications.com)



Causeway

Cratus  
Our world is local

**Website:**

[redhillgardencommunity.co.uk](http://redhillgardencommunity.co.uk)

**Contact:**

[info@redhillgardencommunity.co.uk](mailto:info@redhillgardencommunity.co.uk)

0800 148 8911

Freepost, MPC Consultation