TO: PLANNING & REGULATORY COMMITTEE **DATE: 18 October 2017**

BY: PLANNING DEVELOPMENT TEAM MANAGER

DISTRICT(S) REIGATE & BANSTEAD BOROUGH COUNCIL **ELECTORAL DIVISION(S): Horley West, Salfords and Sidlow Mrs Hammond**

PURPOSE: FOR DECISION **GRID REF:** 525316 143598

TITLE: **MINERALS/WASTE RE16/02556/CON MO/2016/1813/SCC**

SUMMARY REPORT

Horse Hill 1 Well Site, Horse Hill, Hookwood, Horley, Surrey RH6 0RB

The retention of the existing exploratory well site and vehicular access onto Horse Hill; the appraisal and further flow testing of the existing borehole (Horse Hill-1) for hydrocarbons, including the drilling of a (deviated) sidetrack well and flow testing for hydrocarbons; installation of a second well cellar and drilling a second (deviated) borehole (Horse Hill-2) and flow testing for hydrocarbons; erection of security fencing on an extended site area; modifications to the internal access track; installation of plant, cabins and equipment, all on some 2.08ha, for a temporary period of three years, with restoration to agriculture and woodland.

The application is concerned with the appraisal stage of on-shore hydrocarbon development which follows on from the exploration stage. The HH-1 well was originally drilled in October 2014 and the well discovered oil accumulations in the Portland Sandstone and the Kimmeridge Limestones members. The applicant claims flow testing of the target reservoir formations carried out in March 2016 produced the highest stabilised flow rate of any onshore exploration discovery well in the UK. The purpose of the application is to carry further extended well tests and drilling operations at the HH-1 wellsite to appraise the oil accumulations found in the Portland Sandstone and Kimmeridge Limestone members to establish whether it can be economically exploited.

It is necessary to consider the proposal against National and Development Plan polices and assess the potential environmental impacts against those polices, the advice provided by statutory and non-statutory consultees and the views expressed by other bodies, groups and individuals.

The HH-1 wellsite does not fall within an area, or site, designated for its landscape or nature conservation importance. It is however, located on farmland within a rural area in the Green Belt.

A key issue is the need for the development. Government policy makes it clear that oil and gas remains an important part of the UK's energy mix. Policies recognise the continuing importance of fossil fuels but aim to manage reliance on them, their potential environmental effects and the risks associated with security of supply. While the Government manages the transition to a low carbon energy mix this will mean that oil and gas remain key elements of the energy system for years to come (especially for transport and heating). Government policy is set out within the NPPF, the Annual Energy Statement, the Government's Energy Security Strategy the White Paper and BEIS statistics and recognises there is a need to maximise indigenous oil and gas

resources both onshore and offshore. Appraisal testing and further drilling is the next stage in the process of being able to evaluate the extent of the oil deposits discovered during the previous exploration stage and establish whether the reserves can be economically exploited in line with Government policy. Officers give significant weight to the Government Policy to maximise the potential of the UK's hydrocarbon reserves and on the basis of Government guidance conclude there is a national need for this development.

The HH-1 well is located within Petroleum Exploration Development Licence (PEDL) 137 on the northern side of the geological feature of the Weald Basin. The HH-1 exploratory wellsite was chosen following a robust site selection process. The above ground well site needs to be relatively proximate to the target area and the choice of a drilling site is constrained by geological, operational, environmental and amenity factors. On the bases of the information submitted, Officers conclude the existing wellsite location represents the best viable option for the appraisal operations in terms of practicality and technical grounds.

Mineral-related development need not be inappropriate development in the Green Belt provided that high environmental standards are maintained and the site is well restored. Local residents have raised concern in respect of potential noise from the development, particularly sudden noise on nearby horses and noise at night time. Local residents have also expressed concern of site lighting particularly at night time. No objections have been received from the technical consultees who were asked to comment on such issues as noise, lighting, traffic, air quality and water quality pollution control, flood risk, ecology and landscape considerations.

Concerns have been expressed that the proposal involves fracturing and that pollution of the main water supply in the area along with issues of land instability could occur from drilling operations and from chemicals used. This application is for conventional oil and gas exploration and does not involve hydraulic fracturing ('fracking'). The technical consultees have carefully reviewed the proposal and the mitigation measures for hydrological and geotechnical impacts and raised no objections.

Concerns have also been expressed of highway and HGV traffic implications, particularly resulting from protester activity during the previous exploratory stage, leading to traffic delays and access to properties. There are no practical options to move the materials and equipment to or from the site by any other method of transportation. Whilst the development would not be a particularly large traffic generator in total numbers, there would be an increase in HGVs using Horse Hill over the temporary period. The County Highway Authority has acknowledged the applicant will need to consider contingency in the event of protester activity on Horse Hill. Having assessed the development proposal the Highway Authority is satisfied the local highway network in the vicinity of the site could accommodate the traffic associated with the proposed development.

The policy position is to restore mineral sites to an appropriate Green Belt use as soon as is practicable. The applicant intends the site to be restored at the end of the appraisal operations to agriculture and woodland, both of which are beneficial and appropriate Green Belt uses, and the scheme retains measures for increasing biodiversity value of the site through the provision of bat and bird boxes. Officers consider that the proposal should enable high environmental standards to be maintained and the site to be well restored. Accordingly, the proposal meets the policy requirements for mineral development in the Green Belt.

Taking into account the need for the development in the context of national policy and other relevant policy tests, Officers recommend that the application be permitted subject to appropriate conditions to protect the environment and amenity.

The recommendation is to PERMIT subject to conditions

APPLICATION DETAILS

Applicant

Horse Hill Developments Ltd

Date application valid

27 October 2016

Period for Determination

26 January 2017

Amending Documents
Letter from Barton Willmore dated 31 May 2017 and attachments: Restoration Site Area Drawing No.SK-03 dated 25.05.17, Horse Hill Well Site - Reinstatement Operations to former Usage, Proposed Fencing Layout – Composite Drawing No.P25 dated 29.03.17, V-Mesh Fencing Photos, SCP Transport Statement Addendum dated April 2017, Horse Hill: Recommendations for Mitigation Measures, Landscape Strategy Drawing No.EDP3445/11 dated 11.10.16, Lighting Data Sheets (Philips Lighting dated October 2016, Thorlux Lighting dated July 2016 and Victor Lighting: Making hazardous environments work), Air Quality Consultants Ltd Air Quality Assessment Review Response dated March 2017, Hydrock Consultants Ltd (updated) Groundwater Risk Assessment dated November 2016, Horse Hill Developments Ltd Addendum to the Flood Risk and Groundwater Risk Assessments document HH-PR-Q16 dated 01.02.17 and Horse Hill Developments Ltd response to Environment Agency: Notice of request for more information dated 23.01.17; email from Barton Willmore and attached amending drawings, Proposed Site Plan – Composite Drawing No. P06 (dated 13.10.16), Proposed Site Plan Drilling Mode HH-1 Drawing No.P11 (dated 13.10.16), Proposed Site Plan Drilling Mode HH-2 Drawing No.P12 (dated 13.10.160), Illustrative Site Plan – EWT Mode HH-1 drawing No.P14 (dated 13.40.16), Illustrative Site Plan – EWT Mode HH-2 Drawing No.P15 (dated 13.40.16), Illustrative Sections – Drilling Mode HH-1 Drawing No.P17 (dated 13.10.16), Illustrative Sections – Drilling Mode Parameters Drawing No.P19 (dated 13.10.16), Illustrative Sections – EWT Mode HH-1 Drawing No.P20 (dated 13.10.16), and Illustrative Sections – EWT Mode HH-2 Drawing No.P21 (dated 13.10.16); email from Barton Willmore dated 7 August 2017 and attached amending drawing, Illustrative Site Plan – Drilling Mode Lighting Plan Drawing No.P13 dated 09.02.17; email from Barton Willmore clarifying noise; and email from Barton Willmore Clarifying water usage and stock tanks.

SUMMARY OF PLANNING ISSUES

This section identifies and summarises the main planning issues in the report. The full text should be considered before the meeting.

	Is this aspect of the proposal in accordance with the development plan?	**Paragraphs in the report where this has been discussed**
Need for the Development	Yes	100 – 158
Highways, Traffic and Access	Yes	159 – 202
Landscape and Visual Impact	Yes	207 – 225
Ecology and Biodiversity	Yes	226 – 266
Noise and Vibration	Yes	267 – 306
Lighting	Yes	367 – 322
Air Quality	Yes	323 – 352
Water Environment & Geotechnical	Yes	353 – 380
Archaeology	Yes	381 – 389
Restoration	Yes	390 – 399

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Green Belt	Yes	404 – 417

ILLUSTRATIVE MATERIAL

Site Plan

Plan 1- Site Location and application site

Aerial Photographs

Aerial 1 - Site location showing the surrounding area to the application site
Aerial 2 - Site Location showing the application site area

Site Photographs

Figure 1 - Existing wellsite access viewing north on Horse Hill
Figure 2 - Existing wellsite access viewing south on Horse Hill
Figure 3 - The existing wellsite access on Horse Hill
Figure 4 - Existing well pad viewing north west
Figure 5 - Existing well pad viewing north
Figure 6 - Existing well pad viewing south
Figure 7 - Existing well pad viewing east

BACKGROUND

Site Description

1 The 2.08 hectares (ha) application site is located on part of an arable field, found west of Horse Hill beyond an area of woodland. The proposed application site comprises the existing 1.16ha Horse Hill wellsite (HH-1) consisting of well pad, access road and site access onto Horse Hill, plus additional land to accommodate new security fencing and realignment of the access road.

2 The site is situated within a rural area approximately 3.1 km directly west of Horley town centre, 2.3 km northeast of the village of Charlwood and 1.6 km northwest of the village of Hookwood. Gatwick International Airport is approximately 2.2 km southwest of the site. Access to the site is from Horse Hill, which runs north from the A217 junction at Hookwood. Horse Hill becomes Irons Bottom Road north of Collendean Lane before rejoining the A217 at Sidlow.

3 The site is bounded by farmland on all sides with patches of woodland to the east, north west and south west. The arable field on which the wellsite is located rises from the south (65.5 m AOD) to 72.5 m AOD in the north. Between Horse Hill and the well compound is an area of woodland. The woodland covers approximately 2.8ha and is some 165m deep and includes the area where the site access and commencement of the access track to the wellsite is situated. The woodland has water areas at its northern end. A public right of way, Footpath 414 is situated along the northern end of the adjacent field to the south of the access track and wellsite. The field complex to south of the footpath 414 is used for horse paddocks, and Lomond Equestrian Centre.

4 The existing site comprises a wellsite compound, access track and site access. The wellsite compound contains a well pad, consisting of the capped HH-1 wellhead, concrete cellar and hardstanding area. The wellsite compound is situated at the western end of an approximately 250m long access road to the site access off Horse Hill. There are existing

soil bunds and security fencing around the perimeter of the well compound. The access road is made of aggregate surface with a tarmac entrance where it meets Horse Hill.

5 The wellsite falls within the Metropolitan Green Belt, although it is not situated on land that is covered by, or adjacent to, any areas of local, national or higher-level nature conservation designations or any areas of local or national level landscape designations. There are however sites of ecological importance in the vicinity with Crutchfield Copse Site of Nature Conservation Importance (SNCI) located 1.1km to the northeast, Eldophs Copse Local Reserve some 1.8 m to the northeast, Glovers Wood Site of Special Scientific Interest (SSSI) 3 km distant and the Rowgarden Wood Ancient Woodland approximately 330m to the north west of the application site.

6 The closest residential properties to the well pad are Wrays Farm House situated approximately 370m to the east, Five Acres approximately 410m south east and High Trees Court situated 350m north. The access road and site access are in closer proximity to residential properties with Wrays Farm House situated 50m from the site access and other properties to the south east within 250m of the access.

Planning History

7 The land use planning process for on shore oil and gas development is divided into three distinct stages comprising, exploration, appraisal and production.

8 Planning permission was first granted at the application site for the exploratory stage of on shore oil and gas development under permission reference RE10/2089 dated 16 January 2012. The planning permission allowed for the construction of an exploratory wellsite including plant, buildings and equipment; the use of the wellsite for the drilling of one exploratory borehole and the subsequent short term testing for hydrocarbons; the erection of security fencing; construction of a new access onto Horse Hill and associated access track with passing bays, all on some 1.16 ha, for a temporary period of up to 3 years, with restoration to agriculture and woodland.

9 Works to construct the wellsite commenced in February 2014. The exploratory borehole, known as HH-1, was originally drilled in October 2014 and the well discovered oil accumulations in the Portland Sandstone and in multiple deeper Jurassic formations of the Kimmeridge Limestone members. Flow testing was later carried out in February to March 2016 which the operator considered highly successful, establishing a claimed cumulative stabilised flow rate of approximately 1,700 bopd.

10 Since flow testing ceased in March 2016 operations at the site have remained dormant whilst the applicant considers preparation of a further planning application to retain the HH-1 wellsite and their intensions for the next stages of oil and gas development at the wellsite.

THE PROPOSAL

11 HH-1 well is located within Petroleum Exploration Development Licence (PEDL) 137 on the northern side of the geological feature referred to as the Weald Basin. The HH-1 well was originally drilled in October 2014 and the well discovered oil accumulations in the Portland Sandstone and Kimmeridge Limestones. The applicant claims flow testing of the reservoir formations in 2016 was highly successful.

12 The applicant states that the purpose of this application is to seek planning permission to retain the existing HH-1wellsite and carry out further extended well tests (EWTs) and drilling operations at the site.

13 At a general level the works proposed will involve:

- Extended well tests (EWTs) and short- term test in the HH-1 reservoir units;
- Drilling and EWT of a deviated sidetrack from the existing HH-1 well targeting the Kimmeridge Limestones; and
- Drilling and EWT of a new deviated HH-2 well, primarily targeting the Portland sandstone but also the Kimmeridge Limestones.

14 The direction of the borehole zones are in a north/north westerly (HH-2), and east/south easterly (HH-1 sidetrack) direction from the centre of the well pad and shown on application plan drawing number P01 Site Location Plan.

15 **Note** – The applicant advises that for the avoidance of doubt this planning application is for conventional hydrocarbons and does not seek permission for unconventional hydrocarbons, or require the use of hydraulic fracturing ('fracking').

16 The application seeks permission to retain the existing 1.16ha wellsite for a further temporary period of three years to carry out further appraisal and drilling operations at Horse Hill wellsite. The existing 1.16ha wellsite permitted for exploration of the Horse Hill Prospect under planning reference RE10/2089 dated 16 January 2012 comprises a site access off Horse Hill, an approximate 250m long access track through a wooded area to the well compound, and the well pad compound.

17 The application site area is increased to some 2.08ha to allow for extending the line of perimeter security fencing around the existing well pad compound and access track to Horse Hill. The application does not seek to change the means of access to the wellsite which is retained off Horse Hill, or increase the area of the already constructed well pad compound.

18 The access entrance with Horse Hill is gated and tarmac surfaced for the first 20m. The remainder of the approximately 5m wide access track to the well pad compound is surfaced with type 1 stone. A geotextile layer is placed below the stone to protect the existing soils and tree roots.

19 The retained well compound is formed of an 80m x 80m wellpad covered by chipped stone. Along the northern edge of the compound is a 3m high, 85m long, and 13m wide at the base, soil storage mound formed of stripped soils from construction of the wellsite and to be retained and used in restoration of the site. The compound is enclosed by fencing with a gate at the drill site entrance with the access track.

20 The well pad is constructed with an impermeable membrane that also seals interceptor ditches that surround the well pad. A concrete well cellar which includes the HH- 1 well is constructed in the centre of the well pad, and two concrete plinths constructed on the northern perimeter of the well pad. The existing site drainage system is retained around the well pad that includes a separator on the western boundary, although the drainage layout is to be modified to install a drainage pipe in the existing gravel swale within the site on the western edge.

Phasing

21 The development would take place over four distinct operational phases and timings of the phases and operations are set out in the table below.

Phase	Work Stage	Duration	Hours of operation
Phase 1: Appraisal of HH-1 Well	Site preparation works	Approximately 30 days	0700 – 1900 Mondays to Fridays; and 0700 – 1300 Saturdays; and no other days
	Workover, extended	Approximately 180	24 Hours, 7days per

	Well tests and short-term testing operations	days	week
Phase 2: Drilling sidetrack from HH-1 and EWT	Drilling operations	Approximately 100 days	24 Hours, 7days per week
	Workover and extended well tests		
Phase 3: Drilling of HH-2 and EWT	Drilling operations	Approximately 110 days	24 Hours, 7days per week
	Workover and extended well tests		
Phase 4: Restoration	Site clearance, plug and abandon wells	Approx 5 days	0700 – 1900 Mondays to Fridays; and 0700 – 1300 Saturdays; and no other days
	site restoration	Approx 22 months	

22 The four distinct development phases and operations proposed within each phase are as follows:

Phase 1: Appraisal of HH-1 Well

23 The Phase 1 operations comprise:

- Site enabling works;
- Workover operations and extended well tests (EWTs);
- Workover operations, acidisation and short-term well test

<u>Site Enabling Works (up to 30 days)</u>

24 The site enabling works will be required to allow resumption of hydrocarbon operations at the site. These activities will involve erection of new perimeter security fencing to the extended site area. The fencing will be 2.4m high V-mesh metal fencing and gates in green, with one 10m vehicle gate, two 6m wide vehicle gates and two 1.2m wide personnel gates. Fence posts will be set in concrete. (*See planning drawing number P25 Proposed Fencing Layout)*

25 Works will be required for realignment and maintenance of the existing access track to provide vehicle passing bays and involves partial removal of a group of trees, and removal of 2 trees to the south of the well pad for security purposes. (*See planning drawing numbers P07, P08, and P09, (1 to 3)Proposed Access Track*).

26 During site enabling works equipment and accommodation will be brought to the site. This would include installation of temporary portable cabins and containers to provide office accommodation, workshops, living accommodation and staff welfare facilities, and security. The largest of the containers will be the workshop facilities and measure approximately 11.5m long, 2.4m wide and 3.75m high. Also included would be the installation equipment such as diesel generator and siting of waste skip bins.

<u>Workover operations, and EWTs and short-term tests (up to 180 days)</u>

27 Following site enabling works the wellsite will be prepared for workover operations, extended well tests (EWTs) and short-term tests of HH-1.

28 Workover operations will be required to prepare the existing HH-1 well for EWTs and will require the use of a workover rig. The workover rig will be mobilised to the site to remove the deepest barrier, make new perforations and install flow test equipment and rod pumping equipment prior to each round of testing. The applicant proposes a workover rig (smaller than a drill rig) with a maximum mast height of 32m and its associated equipment

will be brought to the site over an anticipated 2 day period. Further workover operations are also proposed in Phase's 2 &3.

29 Equipment and facilities required for workover and testing of HH-1 will be brought to site and installed in the well pad compound including 3 stock tanks for crude oil and produced water storage contained in an 18m by 18m by 0.45m high bund, testing equipment, laydown area, separator and pumps, flaring facilities including ignition unit and 10m high flare stack, chemical storage areas, power units and generators, and a fire water tank. (*For EWT site layout see planning drawing number P14 Illustrative Site Plan EWT Mode HH-1)*

30 Acid Treatment
Prior to testing the target formations in all rounds of EWTs across the 3 Phases, a process known as acidisation will take place using a coiled tubing unit. The acidisation process is a technique used in conventional wells to help clean out cement debris from perforations through the steel casing, enabling oil to flow more freely into the wellbore. The process involves pumping dilute acid (15% hydrochloric acid in water) into the well. After the wash is pumped into the borehole, spent (reacted and neutralised) acid will be returned to the surface and any waste created will be collected and disposed at a licensed waste site and in accordance with any associated permits. The acidisation process is repeated prior to EWT in Phases 2 and 3.

31 Once workover operations have been completed an EWT will be carried out in the Portland Sandstones to confirm whether the volume and flow of oil are economically viable. This will be repeated for the Kimmeridge Limestones. Pumping may be required for testing and equipment will be kept on standby. During EWT oil and produced water will be removed from the site by road tanker.

32 During the 1st Phase the processes of workover and EWT operations may be repeated up to three times in order to test the target reservoirs and involve:

- *Workover and Portland EWT* – workover 12 days, EWT 6 weeks
- *Workover, acidisation and Lower Kimmeridge Limestone EWT* – workover 12 days, EWT 5 days
- *Workover and EWTs for Middle and Upper Kimmeridge Limestones* – workover 14 days, EWT 56 days

Phase 2: drilling of a Sidetrack from HH-1 and EWT

33 In the event of a successful EWT in Phase 1, in Phase 2 a sidetrack will be drilled from the existing HH-1 well, followed by a further EWT.

34 Phase 2 operations comprise:

- Drilling rig mobilisation;
- Drilling of a sidetrack well from HH-1;
- Drilling rig demobilisation;
- Mobilisation of a workover rig and the carrying out of workover operations, coiled tubing and acidising operations, and an EWT.

Drilling Sidetracking of HH-1(approx 25-35 days)

35 Following a successful completion of EWTs in Phase 1, a drilling rig will be mobilised to the site and a sidetrack well will be directionally drilled from the existing HH-1 borehole. Drilling and casing the sidetrack well will be carried out over a 25-35 day period.

36 A drill rig and its associated equipment is larger than a workover rig. The applicant proposes a drilling rig with a maximum height of 37m, including a 30m high mast and 7m high substructures, brought to the site over a 4 day period. The rig will have an acoustic/lighting barrier fitted at floor level.

37 There will be some reconfiguration of equipment and facilities installed on the well pad for drilling operations including, drill pipe stores, a mud silo storage area, 3x drilling mud tanks and rig power units, and mud logging unit. (*For drill site layout See planning drawing number P11 Proposed Site Plan Drilling Mode HH-1*)

<u>HH-1 Sidetrack - Workover Operations and EWT, Coiled Tubing and Acidisation (approx 78 days)</u>

38 After drilling the deviated sidetrack the drilling rig will be demobilised from the site over a 4 day period.

39 Repeating the process for workover operation in Phase 1, a workover rig and its associated equipment will then be brought to the site (2 days) to carry out workover on the HH-1 sidetrack well. Similar to Phase 1 a coiled tubing unit will then be used to carry out acidisation of the sidetrack well, before EWT is carried out.

Phase 3 Drilling of HH-2 and EWT

40 Phase 3 will comprise the following operations:

- Drilling of a new HH-2 appraisal well
- Workover operations, coiled tubing acidisation and an EWT

<u>Drilling of a New HH-2 Appraisal Well (approx 35-45-days)</u>

41 Subject to encouraging production results from the EWTs, a new HH-2 deviated appraisal well will be drilled from the existing Horse Hill well pad targeting the Portland Sandstone and Kimmeridge Limestones. This will require a new concrete well cellar to be constructed adjacent to the existing HH-1 cellar. Similar to the Phase 2 sidetracking, a 37m high drill rig and associated equipment will brought to the site over a 4 day period to drill HH-2.

The site layout for drilling HH-2 is set out on planning drawing number P12 Proposed Site Plan Drilling Mode HH-2

<u>HH-2 Well – Workover Operations and EWT, Coiled Tubing and Acidisation (Approx 76 days)</u>

42 Following drilling of the new HH-2 well, similar to Phase 1 and 2, a workover rig will be brought to the site over a 2 day period to carry out workover operations on the HH-2 well. A coiled tubing unit again will be used to carry out acidisation of the HH-2 well before EWT is carried out.

The site layout for EWT of HH-2 is similar to HH-1 and set out on planning drawing number P15 Illustrative Site Plan EWT Mode HH-2

Phase 4 Restoration

43 Following the Phase 3 EWT, the site will be cleared of all equipment, tanks, portacabins, buildings and any other supporting infrastructure. The wells will be decommissioned and plugged and abandoned in accordance with industry best practice. The well pad compound, access road and site access including any membranes will be removed from the site and topsoil storage mounds would be re-spread back over the site and the site

restored to the agreed afteruses of woodland agricultural field. A programme of site planting would be undertaken in accordance with a scheme to be agreed.

Timescales and Hours of Operation

44 The applicant estimated duration for testing and drilling operations proposes that up to 390 operational days will be required during the first 3 Phases. The applicant advises that whilst the table above estimates the timescales for each phase of the development, the operations within the phases and phases themselves may not be carried out consecutively.

45 The applicant proposes that with the exception of Phase 1 site enabling works and Phase 4 Restoration, the hours of operation for the testing and drilling activities at the site will be 24 hours per day, 7 days per week. At all other times the operating hours would be limited to 0700 – 1900 Mondays to Fridays; and 0700 – 1300 Saturdays; and no other days. The applicant states it should be noted that during the four Phases there may be periods of inactivity while the results of EWTs and drilling are assessed. The timings of operations will also be dependent on other factors, such as the availability of drilling and workover rigs, weather conditions and regulatory restrictions such as planning controls.

HGV Movements and Staff Movements & Parking

46 The applicant proposes maximum HGV movements of no more than 20 HGV movements per day for the duration of the first three phases of the development. In Phase 4 up to 10 HGV movements are anticipated for a 5 day period for well abandonment, and then up to 3 HGV movements per day for a further 41 days across the remainder of Phase 4 for clearance and restoration works. HGV movements over all work stages would be limited 0700 – 1900 Mondays to Fridays; and 0700 – 1300 Saturdays; and on no other days.

47 The applicants states that during the operational phases there will be up to 33 full time staff on site, including security personnel. Approximately 8-10 people will temporarily reside on the site whilst others are likely to be bussed in on a daily basis. Typically two minibuses would access the site twice a day to drop off staff first thing and collect staff again in the evening.

48 The applicant proposes all light vehicle and HGV parking will take place within the site and no parking on the external network will result from the proposals.

Waste

49 The applicant will apply for and seek approval of a Waste Permit from the Environment Agency (EA) prior to the carrying out the proposed operations.

50 Waste arising from operations will be stored on site within labelled skip bins or steel storage tanks on secondary containment bunds. The waste will be managed and disposed in accordance with the approved EA Waste Permit.

51 Produced water from operations in Phases 1, 2 and 3 will be processed to remove hydrocarbons and exported by road tanker to a suitable disposal site.

52 Foul sewage associated with staff accommodation and services will be collected in tanks and disposed of at a licensed facility.

Flaring

53 Any associated gas from the EWT operations would be flared within an enclosed flare within a 10m high flare stack. The design and operation of the flare equipment will be reviewed in accordance with the approved Waste Permit from the EA and permit to drill from the Oil and Gas Authority, and safety regulations by the Health and Safety Executive.

Proposed Lighting

54 For all operational phases (Phases 1-3) the applicant proposes the well site compound will be illuminated although the access track and access will not. The applicants lighting proposals for the well pad are based on the maximum lighting required for the Drill Mode scenario. The well pad lighting includes floodlights on up to 5x 3m high columns positioned around the well pad compound and flood lights to the Mud log cabin positioned on the western boundary of the well pad. Strip lighting and sodium lights are proposed to the rig substructure and its ancillary plant. The rig mast will be illuminated for safety reasons by strip lights that will face inward and downward. It will also be necessary for the rig to have a red strobe aircraft warning light. Bulkhead lamps are proposed for illumination of portable cabins and containers. (*See drawing number P13 Drilling Mode Lighting Plan*)

CONSULTATIONS AND PUBLICITY

District Council

55 **Reigate & Banstead Borough Council**
Planning – no views received
Environmental Health – comments

56 **Mole Valley District Council**
No objection, subject to a condition for Highways.

Consultees (Statutory and Non-Statutory)

57 **Environment Agency**
No objection. The EA considers the proposals satisfactory on the grounds of ground water and surface water pollution. The EA further advises the development will be subject to a separate application for a separate environmental Mining Waste Permit that will consider matters of air quality, noise and vibration.

58 **Natural England**
No objection

59 **County Highway Authority – Transportation Development Planning**
No objection, subject to conditions. Following correspondence made on the application the Highway Authority considers that the development can be safely accommodated on the highway, and raises no objection, subject to highways conditions.

60 **Rights of Way**
No views received

61 **County Noise Consultant**
No objection, subject to conditions on noise including, noise limits and operating hours, monitoring and detailed scheme for noise mitigation.

62 **County Lighting Consultant**
No objection, subject to conditions including a detailed lighting scheme.

63 **County Air Quality Consultant**
No objection, subject to conditions.

64 **Lead Local Flood Authority – Suds & Consenting Team**
No objection, subject to conditions for implementing and maintaining SuDS.

65 **County Geologist**

No objection and recommended conditions in respect of drainage design and post development geochemical soil testing.

66 **County Ecologist**
No objection, subject to conditions

67 **County Landscape Architect**
No objection subject to conditions.

68 **Surrey Wildlife Trust**
No objection and provided advice.

69 **Arboriculturist**
No views received

70 **County Archaeologist**
No objection

71 **County Enhancement Officer**
No objection, subject to conditions

72 **Gatwick Airport Safeguarding**
No objection, subject to a condition for aviation warning light.

73 **Department of Energy and Climate Change DECC**
No views received

74 **Health and Safety Executive - Quarries & Oil/Gas**
No objection and has provided advice on the role of the HSE

75 **Surrey Fire & Rescue**
No objection and has provided advice to the applicant

76 **Sutton and East Surrey Water**
No objection

77 **Thames Water**
No views received

78 **British Pipelines Agency**
Provided advice for working in proximity to high pressure pipelines

Parish/Town Council and Amenity Groups

79 **Salfords and Sidlow Parish Council**
The Parish Council objects to the application. In its original letter of objection in January 2017 the Parish Council stated that it objected to the application on the grounds that the operations are likely to lead to serious nuisance to the nearby residential and business properties and to the significant numbers of travellers, both local and passing through, on the local highway network leading to the site.

The previous application was subject to conditions including conditions covering highways and access, noise, lighting, contamination and drainage but the conditions failed to prevent a lot of nuisance from occurring on these issues during the period of activity at the site in February/ March 2016. Due to the issues that arose it was evident the imposed conditions were not adequate or adequately enforced or both and it was not always clear who was responsible for enforcing or if the staff and equipment necessary was available when required.

Hours of Working
The Parish Council acknowledges that 24 hour working whilst drilling is necessary for safety reasons. However, 24 hour operations are also proposed for the periods of flow testing and, even if noise is limited, the lighting will still have to be on all night and this is unacceptable. As the duration of the activity is likely to last up to 15 months, constant 24 hour work of this intrusive nature would be intolerable particularly as this is in the Green Belt.

Temporary Period of Three years
This is said to be a temporary application for a standalone period of 3 years. This does not make sense and is extremely unfair on residents. This application is one of a series of applications and there is prospect of a further application for exploitation circa 2020/21 almost inevitably for a further 20 years.

Adverse impact from protestors on Environment, Residents and Highways
"Oil Tankers" have been delayed by protesters each time there has been activity on site. Police deployed to shadow and deal with the potential protester obstruction, exacerbates the impacts of the development on the local community. Historically there have been occasions when the highway leading to the site was blocked or obstructed. The Parish Council recognises the right of demonstrator to protest but they cause nuisance and become an integral part of the applicants presence on site. Planners and Councillors need to take into account the adverse impact of protestors and resulting police activity.

The Parish Council suggests the drill site is in the wrong location but also believe much better liaison between operators, the police and demonstrators could reduce the impact on the local community,

Cost of Policing
If police are necessary in order to secure UK energy security, then either the UK Government of the Developer should pay for it and not the ratepayers of Surrey. Arguably given the profit from oil production the developer should pay.

Further, the additional resource required for policing the site has a knock on effect to policing other areas.

Noise Vibration, Light and Air Quality
Adverse impacts of the development will be felt by residents both day and night including from noise, light pollution particularly at night, vehicle movements such as reversing, and general metallic sounds associated to the drilling operation, and smells from the site activities including diesel smells. Loud noise spikes were experienced during previous operations which spooks horses on adjacent Equestrian site. The estimated average noise does not take account of noise spikes which the Parish Council believes were due to poor maintenance of drilling equipment and failure of the operator to deal with this promptly.

Local Environment and Amenity Impacts
Concerns with regard to contamination and indeed it believes contaminated water has entered the ditches on neighbouring land in the past. The application makes it sound few people live near. In fact there are approximately 50 dwellings within 1,000 metres. Whilst the site is surrounded by agricultural land much of it is used all year round for businesses such as sheep farming, veterinary and equestrian activities. There is also significant wildlife in the area. There is also the fear of risk of accidents and a feeling of being watched the whole time.

Additional Comments
If permission is granted conditions must be imposed that can and will be enforced to prevent harm to the local amenity and nuisance caused to residents from operations. This

must include management of protesters and policing, and adverse impacts through noise and vibration, light and air quality in addition to standard conditions.

Updated June 2017 Comments
Having reviewed the additional information submitted for the application on 31 May 2017, the Parish Council maintains its objection, in particular noting the actual numbers of nearby dwellings within 1,000m of the site and surrounding agricultural land much of which is used all year by business such as sheep farming, veterinary and equestrian, and large areas of wildlife. In reviewing the further the information the Parish Council provides additional comments including:

Green Belt
The development harm the Green Belt

Lighting and Fencing
Lighting plan shows several types of light in various locations around the site. The lighting should be sufficiently screened/ and or positioned to avoid causing nuisance to nearby properties. The fencing proposed should be appropriate for its purpose of security of the site and should not be intrusive to the surrounding land and its uses.

However from the information provided it is unsure lighting and fencing will meet the above requirements and it is for the planning authority to ensure lighting and fencing is appropriately installed and operated to meet the requirements.

Noise
Of particular concern is sudden noise which can cause seriously disturb horses and put the horses riders and workers at risk. The operators, as those responsible for causing the noise must be required to record the time and level of all sudden noises that occurred at the site that allows any complaint about noise to be corroborated.

Highways
The Parish Council main concern is about HGV traffic to and from the site. While the HGV traffic due to the site is small in relation to general traffic using Horse Hill it will mainly be large HGV traffic. Problems may occur if i) two or more HGVs are on Horse Hill going to or from the site at the same time; and ii) HGVs being delayed on Horse Hill by protestors, accidents or any other causes.

Provision must be made for HGV drivers to be contacted before they reach Horse Hill to avoid more than one HGV enter or leave the site at the same time, or drivers attempting to enter the site when road is blocked. Suitable diversion routes should be identified that includes use of temporary signage.

Visibility Splays
Visibility splays that occupy the highway to protect other road users must be kept clear of static site traffic and maintained in good and clean condition.

Restoration
The Parish Council wishes assurances for restoration of the site.
- Concerned that the proposals do not say who makes the decision when site reinstatement works will begin, this can't be left to the operator.
- If restoration of the site is dependent whether commercial quantities of oil or gas are found the operator must define what constitutes commercial quantities at the outset and to inform SCC within a specified time if established.
- The proposals needs to include details for reinstating roadway and verges.
- The terms "restoration" or "reinstatement" are used interchangeably which is confusing and if these mean different things this must be defined.

Air Quality

Due to the proximity of the site to residential, agricultural and equestrian properties the Parish Council wishes suitable procedures be put in place to avoid any activities leading to air quality limits being exceeded, including adequate monitoring to enable any particular activity to be stopped if air quality limits are exceeded.

80 **Norwood Hill Residents**

The Norwood Hill Residents object to the planning application. In their original letter of objection in January 2017 the Norwood Hill Residents state their grounds of objection as:

Location Green Belt

- The location on Horse Hill is unsuitable.
- This is Green Belt and strong protection of the environment is required by the National Planning Policy Framework.

Environmental Impact Assessment (EIA)

- There inaccuracies with the applicants information, for example there are more like 100 dwellings under 1.2km distant that are within sight and sound of the development, not the indicated 9.
- Without an Environmental Impact Assessment the submitted evidence of the impacts on social, economic, and environmental issues is insufficient. The Norwood Hill Residents consider that the Screening Opinion issued by SCC in June 2016, to the effect that an Environmental Impact Assessment was not required, was flawed and should be overturned.

Need & Sustainable Development

- The volume of oil likely to be produced is minimal in terms of contribution to UK energy security. Taking all costs into account (regulatory, drilling, appraisal, operating and policing costs, losses to local business) there is no net benefit to the UK economy nor to local economy, and rather it is a deficit.
- The precautionary principle should apply here in what is a weak case for development. The cumulative adverse impacts of this development make it unsustainable and therefore the development cannot be granted permission.
- The economic benefit is not satisfactorily demonstrated and must be done if the NPPF provisions for protecting the environment are to be respected.

Duration

- The length of the proposed working (14-18 months) is unacceptable.
- This application is not stand-alone, it is one of an indivisible series lasting 10 plus years before exploitation, which would then add a further 20 plus years.

Environment and Amenity Impacts

- 24 hour working for flow testing is only acceptable if severe restrictions are placed on night time activity.
- Flaring may improve smells but will generate NOx emissions which are harmful to health
- Noise monitoring is not planned to be independent.
- Shielding of noise and light to the north is seriously inadequate.
- ‘SCC’s refusal’ of proposed noise light/barrier is disastrous for local residents. It suggests a lack of understanding of environmental impact.

Highways& Protesters

- The impacts of protesters and police are a material adverse impact and should be taken into account.
- The highway situation is potentially dangerous, and vulnerable to protester obstruction.
- The protesters are an inevitable and predictable consequence of developer activity on site.
- Protester are serious nuisance to local residents and cause significant distress.
- Police have no strategy to deal with protesters and the significant policing costs fall on taxpayers.

HSE

- There is no illustration of the potential blast zones in the event of an accident.

Updated June 2017 Comments

Further to the information submitted for the application on 31 May 2017 the Norwood Hill residents add the following points of objection:

Felling mature Oak Trees

- It is not acceptable to fell the two Oak trees identified on the south side of the site simply for security reasons. The tress could be temporarily ringed in razor wire to prevent any unauthorised access to the site.

Green Belt

- If the original acoustic light barrier shielding the rig was 'refused' on grounds of unsightliness and unacceptability in the Green Belt then the whole application should be recommended for refusal.

Highways

- The results of new traffic surveys on Horse Hill and A217 do not account for constant protesters and police actions and therefore are meaningless. The impact of protesters and police on the roads is inseparable from the issue of highways and nature and volume of traffic and therefore is a planning consideration.

81 **Charlwood Parish Council**
No views received

82 **The Charlwood Society**
The society is concerned with the revised transport statement, in particular the assessment of HGV movements and impacts on other road users and pedestrians. The addendum does not take into account cyclists using Horse Hill which forms part of the Surrey Cycle route. Neither have horse riders been taken into account and there are several equestrian properties nearby. There are no footways along Horse Hill and no reference is made to pedestrians. The Society asks traffic movements should take into account the site is accessed via rural road.

83 **Campaign to Protect Rural England (CPRE)**
Object. It is CPRE's view the application should be subject to an Environmental Impact Assessment. This is primarily because of likely organised protester activity and which caused considerable nuisance to local residents during earlier works. Nuisance to nearby residents is matter for consideration when considering an EIA and it would appear likely there will be significant impact on the local area, whether impacts of protesters, particularly affecting the local road network and local business, including on local livestock concerns, but also possible air and noise pollution adversely affecting local residents, as experienced in earlier works.

The works now proposed are on a larger scale than the first application for exploration and for a longer duration. It is now proposed to construct appraisal wells that will be producing oil which will then lead to production wells. There will be increase traffic, raising highway safety issues in view of likely protesters, and greater risk of pollution, particularly emanating from the flare.

There is also a greater risk of accidents. Human error is possible and incidents elsewhere (such as Wytch Farm and Singleton) have involved oil leaks and air pollution. Remedial actions need to be set out for an emergency.

84 **Betchworth Parish Council**
Object to the proposal. Due to the consequential increase in work vehicles, HGVs and heavy equipment along with increased workforce using the narrow country lanes in and around Betchworth village. These small and narrow roads are not suitable for frequent use of large and heavy vehicles.

Summary of publicity undertaken and key issues raised by public

85 The application was publicised by the posting of three site notices *and an advert was placed in the local newspaper.* A total of 55 of owner/occupiers of neighbouring properties

were directly notified by letter. A second consultation exercise was carried out by the County Planning Authority following amending and amplifying information submitted for the application on 31 May 2017. This resulted in the posting of two site notices and a total of 650 letters of notification were sent to neighbouring properties and people and organisations who had expressed an interest in the application prior to the receipt of the additional information received in May 2017.

86 A total of 648 written representations have been received to date, although some people may have written more than once, and 28 of the total number could not be accepted as valid representations.

87 The following table gives an approximate indication of the geographical origin of representation received for the proposed development:

Source	No of Reps
RH6 postcode	72
Remainder of Surrey	86
Beyond Surrey	458
Beyond the UK	4

88 Of the representations received some 301 have written in support of the proposal. A summary of key points in support are on the grounds:

- National need for oil for meeting UK policy on energy security and for the economy.
- Domestic oil supply would reduce the need for overseas imports and the impacts on the environment that may cause.
- The UK has a continuing need for oil until sustainable renewable resources are in position to provide enough energy.
- There is a high need for plastics and most products including plastic are made with oil.
- The significance of the reserves at Horse Hill need to be established by appraisal drilling and testing.
- Onshore oil is needed to help the UK be self-sufficient in energy given a decline in North Sea oil and gas.
- Modern drilling methods are greatly improved and regulated, and developed mindful of impacts to environment and people.

89 Of the remaining representations strong public objection has been received. The issues raised will be addressed in the following sections of this report. The main points of public concern are summarised as follows:

The development is not temporary

- The application suggests the development is temporary for three years, but it is a second application for another three years. If commercial volumes of oil are found the development would go on for 20 years plus.

EIA

- Residents are concerned no Environmental Impact Assessment has been carried out and therefore the impact of pollution has not been assessed adequately.
- The residents do not agree with SCC's screening for EIA.
- The County Council cannot know the full environmental impacts from the development because a full Environmental report does not exist.

Cumulative effects

- The proposal will require many more wells close together to maintain production.
- Not enough information provided assessing accumulative impacts of the development, especially of the impacts of nearby Gatwick Airport, and particularly to air quality.

Company Trust

- Concerns at the way the company managed previous operations and had little regard to the local community.

Profit

- The proposal is only for commercial financial gain which is no excuse for the impacts the development will cause to locals, water sources and wildlife.

Fracking

- Object to unconventional drilling.
- The proposal is the same as fracking.
- Told it is conventional drilling of tight oil, but when look into 'tight oil' extraction it involves hazardous chemicals and fracturing.
- There is growing evidence from the US of significant long-term damage that "fracking" can cause.
- Concerns the deviated wells are actually "fracking" sidetrack drilling.

Policy Need and Climate Change

- The little benefit Horse Hill oil will provide to Britain's energy security is far outweighed by the detrimental effect the development will have on local residents and the environment of Horley and surrounding area.
- The UK has made legal commitments to reducing greenhouse gas emissions.
- Exploiting more fossil fuels is against the national commitments, including the Paris Agreement, to reducing the impacts of climate change.
- The NPPF requires development to be sustainable development, this proposal and more oil exploitation is not sustainable.
- The wider Surrey and Sussex Weald is under threat from this type of application and the cumulative effects of many applications should be considered when assessing this one.
- Future energy must be environmentally friendly and should be investing renewable green technologies.
- If it is in national policy interests to exploit these resources then much more needs to be done to support and protect local communities affected.
- Transport should concentrate on electric vehicles, walking and cycling and not be oil dependent.
- The NPPF says permission should be refused for development of poor design that fails to take account the opportunities available for improving the character and quality of an area and the way it functions. The application does not provide for this.

Location/ setting

- The drill site location is not appropriate. Development Plan policies that dictates mineral can only be worked where they are found is outdated. Modern technology allows for directional drilling and for considerable distance and further consideration should be given for a more appropriate alternative site to drill from.
- Previous EWT operations dramatically affected business at the Lomond Equestrian Centre and other local businesses. It would have a huge impact on the community if the equestrian centre was lost and should be protected.
- The property of Wrays Wood is about 320m away and 14 Residential apartments being built at High Trees amongst others also nearby. UK survey's shows that no other wellsite locations to be in such close proximity to residential properties.
- The development should not be carried out at this site due to high density of dwellings nearby.
- The Weald does not need these wells which are no benefit to the local community, and there is little knowledge of what the environmental impact will be on the local community.

Alternative sites

- No evidence provided for other suitable alternative sites.
- Whilst residents understand national policy to exploit oil, the use of brown field sites should be explored first.

Metropolitan Green Belt

- Site is located within Green Belt. Residential homes are situated close by and the surrounding area around wellsite is used for recreation and walking.

- This is Green Belt area in which development should not occur unless in exceptional circumstances.
- As this is Green Belt it is afforded the highest environmental protection and the site is overdevelopment and out of character of surrounding Green Belt area.

Landscape and Visual

- The site is situated in a rural area with low development, with no significant landscape features other than fields, hedgerows and scattered trees and the development will be a significant visual impact on this area.
- The 37m high rig will be a clear visual impact on the immediate area and clearly visible across a wide area, including from much of Hookwood, especially with the rig lighting.
- Site entrance is an eyesore and draws attention to protesters,
- Concerns application has not properly reviewed and assessed the visual impacts on surrounding area and nearby residents, especially as it is clear the information is inaccurate as some of the nearest properties are actually closer than stated in the application.
- The Landscape and Visual Assessment states woodland blocks to the East provide visual screening of the site which is misleading. The site can be clearly seen from outside High Trees Court. In addition the figures quoted in the LVA to nearest property are also incorrect.
- There will be significant visual impact from the development as the screening effect of the surrounding landscape will be minimal even in the height of summer with full leaf cover.
- The site is poorly screened and can be clearly seen, especially from properties immediately to the south.
- Concerns further tree removal for widening track will exacerbate limited screening of the site.
- Request that a significant landscaping scheme, including mature tree planting should be provided at an early stage to screen the site from properties to the south.
- A scheme should be provided to better screen the site from the footpath to the south and the road.

Ecology

- The application is proposing loss of or harm to trees.
- Site activities will have a negative impact on neighbouring wildlife including slow worms and great crested newts.
- The drilling operations may cause significant light and noise impacts on bats and their roosts.
- The pond at Wrays Wood is home to a variety of wildlife. The geology is naturally fractured and acids, water or oil may seep into other areas including the pond.
- The applicant’s ecology survey’s and mitigation is woefully simplistic.

AONB

- Whilst not in the AONB, it is still an area of natural beauty and should not be damaged or desecrated with oil drilling.
- The site is located on the edge of the Surrey Hills, an area of outstanding natural beauty.

SNCI

- Property of Wrayswood is located some 300m away from the site and is a potential SNCI for water based wildlife.

Geology

- The Wealden geology is complex and the technology from abstracting from the source rock is not well understood, even by the oil company.

Stability

- The drilling will cause earthquakes in the area.
- The deviated borehole for HH-2 could go directly under the property of Wrayswood and no impact assessment has been undertaken to the potential problems of this property.

Duration

- 15 months of 24 hours operations, especially with adverse noise and lighting impacts is unacceptable.
- Operator overran the previous well testing and public not informed about any agreed extension or operations.

Land Contamination

- As no one has come up with a safe and scientific way of dealing with contaminated fluids this work should not go ahead. Land could not be used again if contaminated and further research must be undertaken.

Acidisation

- The oil drilling will use the process of acidisation.
- To extract 'tight oil' from Kimmeridge Limestone will require the process of acidisation. The effects of the strong chemicals used in this process have barely been studied and impacts are not known.
- Proposal includes use of Hydrofluoric acid and other chemicals that may pose significant risk to environment. There should be full disclosure of all chemicals to be used.

Protesters and Policing Impacts

- Local residents have suffered adversely from nuisance caused by protesters.
- The Police presence in response to protesters has previously been massive and their response measures have caused adverse impacts to highway traffic.
- The response and control measures for protesters put in place by the council during extended well test were exceptionally poor.
- Protesters have a legal right to peacefully protest but protesters daily demonstration including slow walking oil tankers and other traffic, is major disruption and inconvenience to local business and residents, especially accessing their own premises.
- This protester activity can add an average of at least 30 minutes onto any journey or longer if the Horse Hill road is closed by police.
- Concerned who will pay for the cost of policing protesters. Policing costs should be met by the applicant and not from Council Tax.
- Concerns that policing has been inconsistent.
- During EWT the council allowed protesters to camp at the junction of the A217 and Horsehill. This led to a large presence of people on the side of the roads already lacking any sort of footpath or solid verge.
- Resumption of works at the site will likely generate protesters on a scale to the previous or even greater and cause much more local disturbance.

Traffic, Highways, Access

- Residents already experience high levels of traffic with drivers driving at inappropriate speeds and additional HGV movements at the site, which is made worse by protestors, for another three years, will compound the issue and is unacceptable.
- Horse Hill is unsuitable for entry/exit of heavy vehicles into the drill site and lorries and tankers swing into and out of the site entrance, causing vehicles to stop to allow them access.
- Traffic assessment undertaken during period of reduced traffic.
- The original drill equipment barely able to navigate country lanes to the site.
- Horse Hill seen by many as a cut through from Gatwick, the M23 and across to Dorking and accidents often happen on the A217 and cause traffic delays and road closures. Cut through traffic already wearing Horse Hill road surface
- Horse Hill is used by walkers, cyclists and horse riders on a regular basis.
- Horse Hill is a county lane with no pavements or street lights and lorries and often there are speeding vehicles
- The applicants highway statement disregards cyclists and Horse Hill is part of the Surrey Cycleway
- Horse Hill is an accident black spot, waiting to happen and there is also a bottleneck of traffic at the junction joining the A217 during peak times.
- Council should consider what necessary improvement works to the Junction of Horse Hill and A217 would be appropriate before the development has commenced.

- The nearest oil refinery to tanker oil is in Southampton which means more vehicles travelling on road and over longer distance.

Lighting

- Lighting is a major concern for residents. Extended well tests will mean floodlighting from the site 24 hours a day, 7 days a week for 15 months and some residents having to cope with flood lights pouring into bedroom windows.
- At night lights are visible above Horse Hill wood and, impacting on houses north of the site up Horse Hill including High Trees Court.
- The wellsite can be clearly seen from properties to the south, especially from dusk when it is lit up and light pollution from the site interrupts the night view of the sky when looking northwards
- Concerns applicants lighting assessment was performed when site was dormant and no drilling rig in operation.
- During extended well tests HHDL failed to ensure restricting duration of flood lighting and lights into neighbouring properties.

Noise and Vibration

- Noise limits were previously exceeded
- Proposed noise limit levels are an unacceptable intrusion to the peace and quiet of the area, especially at night time.
- Residents at closest properties experienced intrusive noise during exploratory stage operations including screeching sound from either the drill rig or defective equipment on site.
- Noise pollution has been a concern for many in close proximity to the site particularly the impact noise has had on those with horses in the area and one horse had to be put down due to noise stress.
- Vibration from drilling operations was clearly felt at the property of Wrays Wood during exploratory although applicants current noise impact assessment (ACIA) does not consider will be the case in appraisal operations.
- Already experienced increase in aircraft noise from Gatwick and the development will cause further noise issues.
- The generators/drilling activities are noisy at dusk and the powerful lighting further exaggerates the ugliness of the drill site.

Screening

- Due to the length of operations any screening effect of trees from lighting will be reduced in winter.
- A scheme should be provided to better screen the site from the footpath to the south and the road.
- The site has inadequate screening on the along the south. During EWT site flood lighting clearly visible from windows of property of Rushmeads situated to the south of the site.

Barrier

- A 6m tall noise and light barrier proposed on the southern boundary was considered but now not allowed which is unacceptable.

Ground Water Pollution

- Plans at Horse Hill include drilling a borehole into and through the aquifers to reach target reservoirs.
- Applicant is proposing to put all kinds of chemicals down the boreholes to release the ‘tight oil’ and the Kimmeridge layer has to be fractured
- The Southeast of England already counts as an area under water stress and drilling of this type always carries risk of leakage into water courses.
- This type of ‘deep drilling’ will contaminate aquifers and springs.
- There will be risk of contaminating water supply aquifers with acid and radioactive water from site drilling operations.
- How can it be ensured toxic fluid and oil will not leach from the rock formations into ground water sources.
- Wells casings can leak polluting water above and or below ground.
- The applicants Groundwater Risk assessment casually dismisses deep waters as of no significance due to their depth.

- Where there is a ‘fault’ there is also a pathway for the migration of contaminants of the deeper target layers such as the Kimmeridge into the water bearing strata nearer the surface.
- Impossible all toxic water will be removed from the ground and some will eventually find its way into the eco system.

Flooding and Surface Water Drainage

- Concerns of drainage and sewage capacity of the site, and from the impacts of flooding, including from contaminated site water.
- During EWT operations brown liquid seen flowing out of site into neighbouring ditches, particularly the ditch by the footpath immediately to the south of the wellsite.
- There is the potential for surface spills from the well that can run off from the site into surface watercourses.
- River Mole suffered extreme flooding in 2013/14. Concerns of pollution risks from the site in the event of extreme flooding, including to ‘Spencers Gill’ a tributary to the River Mole.
- The residents are concerned about new flooding due to excess water and waste produced from the site that may also contaminate local watercourses, including Hookwood Common Brook.

Health Issues

- Some residents have experienced sore throats and headaches from previous drilling.
- The oil extraction will cause health problems to local residents, especially those with respiratory problems.
- Health fears generally from oil and gas exploitation
- The type of drilling is using the neighbouring horses as guinea pigs
- Riding establishment next door has reported health issues to horse and people from the well operations.

Flaring

- Flaring would lead to increase in harmful pollutants, particularly nitrogen oxides (NOx) and PM10 and PM2.5 particulates.
- Flare would be a covered stack at about 10m high and flame not visible. Concerns this will be the first oil site to use the particular flare unit onshore in UK and its use is unproven.

Air Quality

- Emission from the site from machinery and equipment, vehicles and also flaring release dangerous hand harmful NOx’s and particles.
- Concerns from venting of gas and odours occurred on a daily basis during previous operations which had distinct hydrocarbon characteristics.
- During last EWT residents south of the wellsite experienced a horrible odour and residents in close proximity experienced nose bleeds and trouble breathing. EA were contacted but did not act.
- The increase in vehicle movements by the site will cause more emissions and create more air pollution.
- No air-quality testing station on the equestrian land which is down-wind from the drill site.
- Gatwick Airport already produces high levels of air pollution, this proposal will add to it.
- Footpath to the south of the site provides one of few recreational walking routes close by beneficial for cardiovascular exercise and mental wellbeing, but exhaust fumes from generators at the site were overwhelming and sickly.
- Chemicals used caused respiratory problems and there were a lot of sick horses so a lot of people removed horses from horse livery.

Waste

- Wells produce flow back fluid which will be tankered away but no one knows where the toxic waste fluid is taken to be disposed as there are no official sites in this country capable of disposing this type of water.

Restoration and Abandonment

- Based on what the application is saying there is no guarantee the site will be restored at the end of three years. The site must be restored by then.
- If commercial oil is found that means the site will not be restored, but there is no need for this site, even now.
- The methods of restoration are not sympathetic to other locals who use the land for businesses, horse and other recreation.
- Boreholes are plugged and cemented but concerns the method will not ensure leaks especially if deep underground.
- Concerns of lack of waste water facilities for treating contaminated water from drilling operations.

Finance

- Who cleans up should the well fail and pollute surroundings.
- What finance is secured should the company go bust and the site left unrestored.
- What indemnities or bonds are the operator will to offer to offset the risks and impact of the development on the local community.
- Who pays for the constant monitoring of the site?
- Risk of enormous cost to local government should there be accidental spillage, fire, and explosion at the site.

Environment Agency (EA) Environmental Pollution Control Regulations

- Concerns the applicant has previously breached the EA permit for not-using pre-approved chemicals in flow testing and will again, breach the permit and also planning permission.
- Concerns that government policy dictates that the Environment Agency is committed to implement the regulations in a way that minimises the administrative burdens of regulation on business and makes it easy to gain a permit.
- The EA do not have enough resources to then monitor the site when an incident occurs.

HSE and Safety

- Concerned that the company oversees own drilling HSE which is conflict of interest, the HSE process should be monitored independently.
- Concerns the operator has not provided neighbouring residents adequate information on the measures they will take to ensure their safety from an H&S or environmental incident.
- Concerns applicants risk assessment has not fully assessed risks to neighbours from possible fire or explosion from stored flammable liquids onsite given the proximity of residents, or make residents aware of any strategy to limit impacts from the site.
- There appears to be no special arrangements with Surrey Fire and Rescue if a catastrophic failure occurred at the site.

Airport Safety

- Risk to airport safety due to site operations including from rig height

Monitoring/ Regulation

- People are concerned that likely future government cuts to regulatory bodies means sites will not regulated as effectively as need to be.
- During previous EWT there was no active impartial monitoring of the site and no information shared with local residents.

Heritage

- There are several listed sites in the area including a medieval tanner and historic gardens that would be under threat from the development.

Human Rights

- The level of public nuisance caused by this development will be in violation of Human Rights Act for a right to a peaceful life and decision makers will be legally responsible in the future.

General

- Neighbouring horses were spooked by previous site activities and human safety put at risk.
- Horses and machinery do not mix and will spook horses and cause injury and ill health, especially to the disabled and children who use equestrian facilities.

- Low flying media helicopters stressed horses.
- Do not feel there has been enough public consultation of the risks and impacts from expanding the oil extraction works.

PLANNING CONSIDERATIONS

Introduction

90 The guidance on the determination of planning applications contained in the Preamble/Agenda frontsheet is expressly incorporated into this report and must be read in conjunction with the following paragraphs.

91 In this case the statutory development plan for consideration of the application consists of the Surrey Minerals Local Plan 2011 and the Reigate and Banstead Local Plan Core Strategy adopted on 3 July 2014, and the saved polices of the Reigate and Banstead Borough Local Plan 2005.

92 Part 1 of the Reigate and Banstead Local Plan (the Core Strategy) was adopted by the Council in 2014. This sets out the overall scale and location of growth that will take place in the borough between 2012 and 2027. Reigate and Banstead Borough Council are currently in the process of producing Part 2 of the Local Plan which will set out in more detail how the Core Strategy will be delivered. It will contain: policies to guide decision making on planning applications; policy designations; and development site allocations.

93 As part of the first stage in the preparation of the Development Management Plan from the 1st August 2016 to the 10th October 2016 the Council asked the public for their views on the proposed objectives, policy approaches and potential site designations set out in this first stage (Regulation 18) document. Reigate and Banstead Borough Council are now in the process of reviewing the responses to this Regulation 18 consultation. Given the Local Plan Part 2 is some way from being submitted to the Secretary of State for an Examination in Public, Officers consider the draft policies within the Local Plan Part 2 should be given little weight in the consideration of this application.

94 In considering this application the acceptability of the proposed development will be assessed against relevant development plan policies and material considerations. In assessing the application against development plan policy it will be necessary to determine whether the proposed measures for mitigating any environmental impact of the development are satisfactory. In this case the main planning considerations are: Need, Green Belt, highways, water environment and geotechnical, air quality, noise, lighting, landscape and visual, ecology, and restoration.

Licensing

95 The European Union’s Hydrocarbon Licensing Directive 94/22/EC laid down the rules to follow when issuing licenses for prospection, exploration and production of hydrocarbons. The directive was implemented in the UK by means of the Hydrocarbon Licensing Directive Regulations 1995 (SI 1434 1995).

96 Oil and gas exploration drilling requires planning permission but also requires licensing. Licences are issued by the Oil and Gas Authority (Formerly the Department of Energy and Climate Change - DECC). The objective of the licensing regime is to secure the exploration and appraisal of the United Kingdom's (UK's) oil and gas resources and the economic development of discovered reserves. The Petroleum Exploration and Development License (PEDL) issued by the Oil and Gas Authority (OGA) under powers granted by the Petroleum Act 1998, covers all the three stages of oil and gas development – exploration, appraisal and production. A license does not confer any exemption from other legal/regulatory requirements, such as the need to gain access

rights from landowners, health and safety regulations, or planning permission. Once a PEDL has been granted, planning permission must be obtained before the OGA will authorise consent to drill and extended well testing (EWT). The consent to drill and for EWT is obtained from the OGA via the Petroleum Operations Notice (PONS) approval process.

97 In addition both the Health and Safety Executive and the Environment Agency have regulatory roles to play in relation to the proposed development under The Borehole Sites and Operations Regulations 1995 and the established pollution control regime. The existence of a PEDL does not absolve Mineral Planning Authorities (MPAs) from seeking to control development in accordance with the appropriate planning legislation and guidance.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

98 The Town & Country Planning (Environmental Impact Assessment) Regulations 2017 (referred to here as the EIA Regulations) implement European Union (EU) Directive 2011/92/EU (as amended by Directive 2014/52/EU) on the assessment of the effects of certain public and private projects on the environment. Schedule 2 of the EIA Regulations identifies the types of development for which EIA may be required. For Schedule 2 development, the need for EIA is determined on a case by case basis, taking account of the thresholds and criteria set out in the national Planning Practice Guidance on EIA. The national Planning Practice Guidance anticipates that the need for EIA would apply to small numbers of projects for which planning permission is required.

99 The development to which the current application relates was the subject a request for an EIA screening opinion in November 2016, which was made under the 2011 EIA Regulations. Given the nature and scale of the proposed development, and taking account of the characteristics of the land that would be directly affected and the wider area in which it is situated, the County Planning Authority concluded that EIA was not required in this case. An EIA screening opinion, which sets out the full reasons for the County Planning Authority's decision was adopted on 6 December 2016. In summary the main reasons for not requiring EIA were as follows:

- The proposed scheme does not exceed the relevant site area criteria for hydrocarbon development set out in the national Planning Practice Guidance on EIA for drilling operations (Schedule 2, Paragraph 2(d)), or for hydrocarbon extraction installations (Schedule 2, paragraph 2(e)). The application site measures some 2.08 hectares, and the guidance advises that EIA is more likely to be required for proposals where the surface site occupies 5 hectares or more for drilling operations, or 10 hectares or more for hydrocarbon extraction installations.
- The proposed scheme is concerned with the appraisal of the identified hydrocarbon resource, and would not involve the production of hydrocarbons. The scheme therefore does not exceed the rate of production threshold (100,000 tonnes or more of hydrocarbons per year), specified in the national Planning Practice Guidance on EIA for hydrocarbon extraction installations (Schedule 2, paragraph 2(e)), as the level above which EIA is more likely to be required.
- The application site is not located within, or in close proximity to, any of the categories of 'sensitive areas' defined in Regulation 2 of the EIA Regulations 2011 (as amended), or by any groundwater bodies that are subject to monitoring under the Water Framework Directive regime.
- The development is proposed for a temporary period of time, and the site would be fully decommissioned and restored to a condition suitable for agricultural and woodland use upon completion of the scheme.

NEED FOR HYDROCARBON DEVELOPMENT

Surrey Minerals Plan Core Strategy Development Plan Document 2011 (SMPCSDPD 2011)

Policy MC1 – Spatial strategy – location of mineral development in Surrey
Policy MC12 – Oil and Gas development.

100 There are three separate phases of oil and gas development: exploration, appraisal and production. Each requires separate planning permission.

101 In January 2012 planning permission (ref.RE10/2089) was granted for the exploration stage of the Horse Hill prospect and HH-1 was originally drilled in October 2014.The HH-1 well borehole discovered oil accumulations in the Portland Sandstone and in multiple deeper Jurassic formations of Kimmeridge Limestone members. Flow testing was later carried out in February to March 2016 which the operator considered highly successful. The applicant now seeks planning permission for the next stage of oil and gas development at Horse Hill for appraisal. The applicant has sought to demonstrate the need position by identifying the contribution to the UK energy market needs using indigenous energy minerals to reduce the reliance in energy imports, in supporting a range of employment and economic growth including manufacturing, and securing the UK's energy future. The HH-1 wellsite was originally identified by HHDL as a suitable site for exploration, following a site selection process .The applicant states that the purpose of this application is to seek planning permission to retain the existing HH-1wellsite and carry out further extended well tests (EWTs) and drilling to further appraise oil accumulations in the Kimmeridge Limestones and Portland Limestones. The application site is located in a rural area within the Metropolitan Green Belt. One of the key considerations in determining this application will be the need for the development.

Planning Policy

102 National Planning Policy on onshore oil and gas is set out within the NPPF. The NPPF recognises that minerals are a finite natural resource and can only be worked where they are found. Paragraph 142 states that it is important to make best use of them [minerals] to secure their long-term conservation and that minerals are essential to support sustainable economic growth and our quality of life. Paragraph 144 of the NPPF states that when determining applications for mineral development, local planning authorities should give great weight to the benefits of mineral extraction, including to the economy, while ensuring there are no significant adverse impacts to amenity or the environment. Paragraph 147 of the NPPF states that when planning for on-shore oil and gas development, local planning authorities should clearly distinguish between the three phases of development (exploration, appraisal and production) and should address constraints on production and processing within areas that are licensed for oil and gas exploration or production.

103 When determining a planning application the national Planning Practice Guidance (the nPPG) at paragraph 142 states mineral planning authorities should take account of government energy policy, which makes it clear that energy supplies should come from a variety of sources. This includes onshore oil and gas, as set out in the government's Annual Energy Statement published in October 2013.The nPPG goes onto state that the role of MPA's is to grant planning permission for the location of any wells and wellpads, and impose conditions to ensure that the impact on the use of the land is acceptable.

National Policy Context – Energy & Climate Change

104 In recent years one of the national energy policy goals has been to ensure that the United Kingdom (UK) has secure and affordable energy supplies which are seen as vital to its future prosperity and security. Nevertheless, the UK's energy and climate change policy is influenced by decisions taken in Europe and as the importation of oil and gas increases, so does the influence of international issues.

EU Context

105 The European Commission (EC) has adopted Green Papers and Strategic Energy Reviews to advance the agenda on sustainability, competitiveness and security of supply. A core goal of European energy policy is to ensure safe, secure, sustainable and affordable energy for all and is of fundamental importance to the EU's economy, industry and citizens.

106 The European Council in 2007 adopted ambitious energy and climate change objectives for 2020 – to reduce greenhouse gas emissions by 20%, to increase the share of renewable energy to 20%, and to make a 20% improvement in energy efficiency. To address the challenges of energy security and climate change, the EU's energy and climate goals are incorporated into the Europe 2020 Strategy for smart, sustainable and inclusive growth, which was adopted by the European Council in June 2010, and into its flagship initiative 'Resource efficient Europe'.

107 The concern about delivering secure, sustainable energy at affordable prices whilst moving towards a low carbon economy, led the EC to publish a 'Security and Solidarity Action Plan' in November 2008 which focussed on improvements to the energy supply of the European Union (EU) by:

- promoting investment in energy infrastructure, to increase interconnection between Member States and diversify the types, sources and routes of the EU's energy supply;
- strengthening the EU's external energy relations with important energy producers and consumers;
- improving Europe's ability to respond to disruptions to supply;
- increasing the EU's energy efficiency;
- making better use of the EU's indigenous resources. (This includes sustainable use of fossil fuels).

108 The European Union Climate and Energy Package December 2008 commits members of the EU to reducing greenhouse gas by 20% (compared to 1990 emissions) by 2020. The Package has four parts and covers the:

- EU Emission Trading System Directive 2009/29/EC
- Greenhouse gas effort sharing decision No 406/2009/EC
- Renewables Directive 2009/28/EC
- Carbon Capture and Storage Directive 2009/30/EC.

109 The current EU Energy Strategy sets out that that the EU imports more than half of all the energy it consumes. Its import dependency is particularly high for crude oil (more than 90%) and natural gas (66%). The total import bill is more than €1 billion per day. Global energy markets are becoming tighter, with developing Asian countries and the Middle East accounting for most of the growth in global demand. As the world's largest energy importer, the EU is likely to be more vulnerable to supply risks as a result.

National Context

110 National Policy with regard to energy is set out in the UK's Energy White Paper 'Meeting the Energy Challenge' published on 23 May 2007 (2007 Energy White Paper) and incorporates EU objectives towards energy and climate. The 2007 Energy White Paper recognises that '*energy is essential in almost every aspect of our lives, as well as for the success of our economy'*. The 2007 Energy White Paper sets out the Government's response to the long-term energy challenges posed by the need to tackle climate change and reducing CO2 emissions, and ensuring that the country has secure, clean and affordable energy supplies. The four energy policy goals in the White Paper are to:

- cut emissions by some 60% by about 2050, with real progress by 2020;
- maintain the reliability of energy supplies;

- promote competitive markets in the UK and beyond;
- ensure that every home is adequately and affordably heated.

111 It is recognised in the 2007 Energy White Paper that a large percentage of the UK's energy needs are met by oil, gas and coal and that even though renewables and low carbon technologies will have an increasing role, fossil fuels will continue to be the predominant source of energy for some decades. In paragraph 4.03, it explains that while the UK has benefitted from indigenous reserves of oil and gas for many years, as the North Sea matures, we will become increasingly dependent on imported energy, and therefore we need to be confident that the market for fossil fuels, supported by appropriate Government policies, continues to ensure reliable supplies of these fuels and at competitive prices.

112 The Government's summary of measures for oil, gas and coal are set out on page 124 of the 2007 Energy White Paper:

'Our policies recognise the continuing importance of fossil fuels in maintaining reliable and affordable energy supplies, but aim to manage our reliance on them, their potential environmental effects and the risks associated with higher levels of import dependency by:'

- 'encouraging energy efficiency to reduce the use of fossil fuels…'
- 'supporting and maximising economic production of fossil fuels in the UK…'
- 'ensuring effective energy markets at home and abroad…'.

113 The Energy Act 2008 implements the legislative aspects of the 2007 Energy White Paper and reflects the changing requirements for security of supply infrastructure and adequate protection for the environment and the UK's population, as the energy market changes. The Government's intention was, that along with the Planning Act 2008 and the Climate Change Act 2008, the Energy Act would ensure that legislation underpins the long term delivery of the UK's energy and climate change strategy.

114 The Climate Change Act established a legally binding target to reduce the UK's greenhouse gas emissions by at least 80% below base year levels by 2050, to be achieved through action at home and abroad. To drive progress and set the UK on a pathway towards this target, the Act introduced a system of carbon budgets which provide legally binding limits on the amount of emissions that may be produced in successive five-year periods, beginning in 2008. The first three carbon budgets were set in law in May 2009 and require emissions to be reduced by at least 34% below base year levels in 2020. The fourth carbon budget, covering the period 2023–27, was set in law in June 2011 and requires emissions to be reduced by 50% below 1990 levels.

115 Legally binding emission reduction targets were set in the Climate Change Act 2008. The Act established a long-term framework to tackle climate change which includes five yearly carbon budgets to help ensure that targets are met. These set a cap on the total quantity of greenhouse gas emissions emitted in the UK over a specified time whereby if emissions in one sector rise, reductions in another sector will have to be achieved. The transition to a low carbon economy is being underpinned by several strategies. The UK Low Carbon Transition Plan: the national strategy for climate and energy (The Transition Plan) 2009 outlined policies and proposals that will be put in place to reduce carbon emissions by 2020. The Transition Plan is supported by the Renewable Energy Strategy, the Low Carbon industrial Strategy and Low Carbon Transport: A Greener Future. Some key measures in the Transition Plan are implemented by the Energy Act 2010 which has provisions on delivering financial incentives for carbon capture and storage, mandatory social price support, measures aimed at ensuring energy markets are working fairly for consumers and delivering secure and sustainable energy supplies.

116 In addition the Government introduced the ‘The Carbon Plan: Delivering our low carbon future’ in December 2011. The Plan sets out how the UK will achieve decarbonisation within the framework of our energy policy: to make the transition to a low carbon economy while maintaining energy security, and minimising costs to consumers, particularly those in poorer households.

117 The UK has signed up to the EU Renewable Energy Directive 2009/28/EC, which sets individual targets for each member state. The UK’s target is to source 15 % of energy (electricity, heat and transport) from renewable sources by 2020. This target is included in the UK Renewable Energy Strategy published in 2009 where it is anticipated that it will ‘contribute to the security of energy supplies in the UK through reductions in our demand for fossil fuels of around 10%, and gas imports by between 20 – 30% against our forecast use in 2020.’ (para 5.1). The Government's approach to increasing renewable energy across the UK in the sectors of electricity, heat and transport has been set out in the UK Renewable Energy Roadmap published in July 2011 alongside the Electricity Market Reform White Paper. The Government believes that getting more renewable energy can give the UK 'much more security and a greater degree of energy independence - helping to shield us from global fossil fuel price fluctuation'. Page 4 UK Renewable Energy Roadmap.

118 The Energy Act 2011 which received royal assent on 18 October 2011 has three principal objectives: to tackle barriers to investment in energy efficiency, enhance energy security and enable investment in low carbon energy supplies.

119 The Government is committed to produce Annual Energy Statements of energy policy to be put before Parliament. The first of these statements was issued on 27 July 2010 and set out an outline programme and timetable for decisions in four key areas. The second area is ‘Delivering secure energy on the way to a low carbon energy future’, alongside such issues as working for secure, low carbon energy on the international stage; developing low carbon forms of heat and technology-specific actions, is the issue of securing oil and gas supplies.

120 The 2010 Annual Energy Statement acknowledged that ‘energy security is heavily dependent on international developments’ with 8% (net) oil currently being imported which is anticipated to rise to in the region of 45 to 60% by 2020. The Statement reiterates that ‘the UK’s own indigenous supplies of oil and gas remain important’. (Page 9). The Statement sets out a total of 32 action points with action points 10, 11 and 12 specific to oil and gas. Action 10 covers offshore oil and gas drilling, but action point 11 is as follows:

- Action 11 'In the forthcoming Energy Security and Green Economy Bill, we will seek to ensure that access to UK oil and gas infrastructure is available to all companies. This will help the exploitation of smaller and more difficult oil and gas fields, allowing use to make the most of our natural resources.'

121 The Government acknowledges that in the longer term, energy security will go hand in hand with climate security and in 2012 the Government set out its future strategy for energy security in the Department of Energy and Climate Change (DECC) Energy Security Strategy published in November 2012. The Energy Security Strategy 2012 (Page 20) explains the exploitation of our North Sea oil and gas reserves has brought significant energy security as well as commercial benefits. Although UK production still provided the equivalent of 72 per cent of our oil use (including bunkers) and 55 per cent of our net gas use, the UK continental shelf (UKCS) is on a downward trend. By 2020 it expects the UK will be net importers of 43 per cent of the UK oil demand and 53 per cent of gas demand.

122 The Annual Energy Statement 2013 sets out that the energy sector is a critical part of the UK economy and is an important driver for growth. The Department for Business, Energy and Industrial Strategy (BEIS) (previously DECC) produce a range of statistics covering energy, climate change, energy efficiency and fuel poverty. Energy statistics are

published annually in the BEIS Digest of UK Energy Statistics (the Digest). The most recent Digest was published in July 2017. The BEIS have also published a booklet entitled UK Energy in Brief, also published in July 2017. The UK Energy Brief provides a summary of some the key developments in the UK energy system: how energy is produced and used and the way in which energy use influences greenhouse gas emissions. The Energy Brief summarises data from the BEIS energy and climate change statistical publication, the Digest of UK Energy Statistics, Energy Statistics, Energy Prices, Energy Consumption in the UK and annual Fuel Poverty Statistics. Detail from these publications is referred to later in the report

Development Plan Policy

123 The Surrey Minerals Plan Core Strategy Development Plan Document 2011 (SMPCSDPD 2011) paragraph 3.1 explains that one of the key aspects of the planning system is to ensure that the spatial aspects of development are properly considered. In the case of minerals planning, any strategy is constrained by the fact that minerals can only be worked where they occur and some resources are sterilised by other development. In the case of oil and gas the Government licenses the exploration, appraisal and production of hydrocarbons. The Weald Basin is one of only two locations in southern England where commercial deposits of hydrocarbons are thought to exist. In Surrey, the Government licenses have been issued predominantly to the south of the North Downs. Since the 1950's exploration and appraisal of hydrocarbons has occurred fairly widely across the southern part of the county This is reflected in Policy MC1 – *Spatial strategy – location of mineral development in Surrey* of the SMP2011 which states that oil and gas development will be mostly likely be concentrated in the southern half of the county.

124 The SMP2011 includes a section on oil and gas development within the chapter entitled Maintaining a Supply of Minerals. Paragraph 5.36 recognises that conventional oil and gas development differs from other mineral development in that it involves short duration continuous working at the exploration and appraisal stage and that there is some limited flexibility in the location of wellhead sites that are small in relation to the extent of the deposit. Paragraph 5.37 states that 'applications for exploratory wells will be considered on their individual merits in accordance with all levels of policy guidance. Key considerations are locating sites to minimise intrusion, controlling vehicular activity and vehicle routeing, and controlling, noise and light emissions from drilling rigs especially during night-time operations. Proposals will be expected to address all these issues.' Policy MC12 covers all three stages of oil and gas development, it states that Planning applications for drilling boreholes for the exploration, appraisal or production of oil or gas will be permitted only where the mineral planning authority is satisfied that, in the context of the geological structure being investigated, the proposed site has been selected to minimise adverse impacts on the environment. The use of directional drilling to reduce potential environmental impacts should be assessed. Applications for drilling to appraise potential oil or gas fields will on be permitted where the need to confirm the nature and extent of the resource, and potential means of its recovery, has been established.

125 The environmental and ecological impacts of the development will be covered under the individual headings within the remainder of this report.

Need for Hydrocarbon Supply

126 Oil and gas form an integral part of the UK's energy and generation mix maintaining energy security, affordability and decreasing carbon emissions in the UK. Public objection made on this application have questioned the need for further oil and gas exploitation.

127 The national Planning Policy Guidance requires that in determining a planning application for oil and gas development, mineral planning authorities should take account of government energy policy, which makes it clear that energy supplies should come from a variety sources which includes onshore oil and gas.

128 The UK oil and gas industry has been the largest sector of industrial development throughout the past four decades predominantly from production of the UK's Continental Shelf (UKCS).

129 The Annual Energy Statement 2013 (page 39) states that with oil and gas remaining key elements of the energy system for years to come (especially for transport and heating), the Government is committed to maximising indigenous resources, onshore and offshore, where it is cost-effective and in line with safety and environmental regulations to help ensure security of supply. In 2012 UK oil and gas production provided 41% of the UKs primary energy needs and £6.5 billion of direct tax receipts in 2012/13 (the Digest 2013).

130 The UK Energy in Brief 2017 published by BEIS sets out the energy industries current contribution to the UK economy. The statistics show a general decline from the peak contribution of 10.4% in 1982 to the 2010 estimate of 2.3% of GDP. BEIS estimate of the energy total in 2016 oil and gas extraction accounted for 29% (up 1 percentage point on the previous year), while electricity (including renewable) at 44% and gas at 16% were broadly unchanged. In addition the energy industry supports 178,000 jobs directly and indirectly, with an estimated 152,000 in support of the UK Continental Shelf production.

131 Climate change and energy policies are interlinked. The Government recognises that the way we produce and use energy plays a major part in meeting the challenge of climate change and has emissions targets and policies in place for a transition towards a low carbon energy mix. Energy statistics published by BEIS in the Energy Brief 2017 show that there has been a steady increase in primary energy from low carbon sources (nuclear, wind, solar, hydro, bioenergy, transport fuels and others). In 2016 the UK obtained 17% of its primary energy from low carbon sources, up from 9.4% supplied in 2000. With 47% of this from nuclear power. The second largest component of low carbon was bioenergy, accounting for 35% of the total low carbon energy sources.

132 In 2016 the UK emissions were provisionally estimated to be 466.0 million tonnes of carbon dioxide equivalent. The BEIS estimates, based on energy production and consumption in 2016, carbon dioxide emissions were 7.4% lower than 2015 and 37% lower than in 1990.

133 The BEIS estimated that in 2015 the UK greenhouse gas emissions (GHG) were 495.7 million tonnes of carbon dioxide equivalent which was 38% lower than in 1990 (page 14 of the Brief 2017) . The energy sector was the largest single source accounting for 29% of total emissions then the transport sector accounting for 24% and residential sector at 24% of emissions. The transport sector has seen the biggest rise in GHG emission which accounted for 15% of total emissions in 1990, whereas the energy sector and residential sectors have decreased from the 1990 levels by 48% and 17% respectively. Although some hybrid and electric vehicles are now available, there are currently few commercial alternatives to petrol for transportation.

134 Petroleum forms a key part of the UK's energy mix. Transport now represents nearly 80% of energy use of oil products, a substantially larger share than in 1990 as the use of fuel oil for electricity generation has declined and air travel has become more common. Around 10 percent of the UKs total energy production is from crude oils extracted from the UKs Continental Shelf (UKCS) and UK refineries produce around 60 million tonnes of Oil products. For gas it is estimated production from the UKCS would sufficient to meet nearly 60% of gas demand (Chapters 3& 4 of the Digest 2017).

135 Overall demand from refineries has dropped by a third since 2000, but there has been a far steeper decline in oil production from the UKs Continental Shelf. While total indigenous oil and gas production was up 4% on 2015 due to a new operation commencing in the UKCS the UKs indigenous oil and gas production has been declining

at a rate of 6% year on year since the UKCS production peaked in 1999 (page 21 the Brief 2017).

136 During the 1980s and 1990s the UK was largely self-sufficient in oil and gas but the decline in production from UKCS meant that by 2004 the UK became a net energy importer. In 2013 imports of petroleum exceeded exports following the closure of the Coryton refinery; the UK is now a net importer of all main fuel types, although remains a net exporter of some products such as petrol supply. In 2016, the UK imported 34% of its oil and 47% of its gas.

137 As North Sea oil and gas production declines the UK's import dependency will grow and the UK will become increasingly exposed to the pressures and risks of Global market (page 21 Energy Strategy 2012).

138 The Government set out measures for UK production of oil and gas in the DECC Energy Security Strategy 2012. On page 20 the Strategy states the Government will work to maximise economic production of UK oil and gas resources though:

- *Licensing rounds, which ensure this reliable source can continue to deliver supplies for as long as possible*;
- *Providing a fiscal regime that encourages further investment and innovation in the North Sea, while ensuring a fair return for UK taxpayers; and*
- *Considering the potential for UK unconventional gas production, and whether it will prove technologically, environmentally and economically sustainable*.

139 The Government is also undertaking activities in a number of areas to enhance energy security whilst also delivering wider energy goals. This includes measures to: incentivise deployment of flexible gas and low carbon generation; maximise economic production of domestic oil and gas reserves; and prevent possible disruptions to the UK energy supply (Page 18 Annual Energy Statement 2014).

140 Under EU law the UK has an obligation to maintain stocks of key oil products. The UKs policy obligations are set out in DECC UK Emergency Oil Stocks document published in February 2015. Under EU Directive 209/119/EC EU member states are required to hold oil stocks at the higher order of a 90 days of average net daily imports or 61 days of average daily inland consumption in order to mitigate a supply crisis. The UK has legislation in place to meet these international obligations by directing companies to hold oil stocks. Section 6 of the Energy Act 1976 allows the Secretary of State for Energy and Climate Change to give Directions to businesses producing, supplying or using crude liquid petroleum or petroleum products within the UK market, requiring them to hold minimum levels of oil stocks.

141 As a crude oil producer the UK has a derogation that reduces its obligation with UKs current obligation to hold 67.5 days consumption. However, as UK crude oil production declines, the EU derogation will be phased out, and as net imports increase, the overall UK obligation is expected to increase from beyond 2016 whilst the UK remains in the EU.

142 Government energy policy stated on Page 19 of the Energy White Paper 2007 *that '… to meet our security of supply challenges, we will*:

- *maximise the economic production of our domestic energy sources which, together with our energy saving measures, will help reduce our dependence on energy imports;…'* .

143 In this context the importance of domestically produced oil and gas is recognised. '*Renewables and other low carbon technologies will play an increasing role in our energy mix over the longer term; however, fossil fuels will continue to be the predominant source of energy for decades to come.'* Para 4.02 Page 105 of the 2007 Energy White Paper.

The Government's summary of measures for oil, gas and coal set out on page 124 of the White Paper states:

'Our policies recognise the continuing importance of fossil fuels in maintaining reliable and affordable energy supplies, but aim to manage our reliance on their potential environmental effects and the risks associated with higher levels of import dependency by:

- *encouraging energy efficiency to reduce the use of fossil fuels*
- *supporting and maximising economic production of fossil fuels in the UK*
- *ensuring effective energy markets at home and abroad.'*

144 Guidance on the Government energy policy provided in nPPG makes clear that energy supplies should come from a variety of sources including onshore oil and gas. Onshore oil and gas have only been discovered and produced in commercial quantities from certain sedimentary basins onshore. In the south of the UK the Wessex-Channel covers the productive Weald Basin and the Wessex Basin where the Jurassic rocks and the existence of trapping structures are suitable for hydrocarbon accumulation.

145 The current proposal falls within the Weald Basin, which extends from Hampshire to Kent and East Sussex and includes the Humbly Grove oilfield in Hampshire, along with the oil producing Horndean, Stockbridge, Storrington, Woodworth and Singleton oilfields. In Surrey the Weald covers the gas reservoir known as 'Albury 1' further west in the County, Palmers Wood Oilfield near Oxted and the Brockham Oilfield.

146 The application is for the appraisal stage of oil and gas development at Horse Hill wellsite. The appraisal phase takes place following exploration when the existence of oil or gas has been proven, but the operator needs further information about the extent of the deposit or its production characteristics to establish whether it can be economically exploited.

147 HH-1 well is located within Petroleum Exploration Development Licence (PEDL) 137 on the northern side of the geological feature of the Weald Basin. The HH-1 well was originally drilled in October 2014 and the well discovered oil accumulations in the Portland Sandstone and in multiple deeper Jurassic formations including limestone members of the Kimmeridge layer.

148 The applicant claims flow testing of the target reservoir formations carried out in March 2016 was highly successful, producing the highest stabilised flow rate (almost 1,700bopd) of any UK onshore exploration discovery well in the UK.

149 The applicant states the application seeks planning permission to retain the existing HH-1 wellsite and carry out further extended well tests (EWTs) and drilling operations at the site to further appraise the target reservoirs of the Kimmeridge Limestones and Portland Sandstone. The applicant has put together an appraisal programme to establish whether there is commercial viability to recover the oil reserves discovered in 2016.

150 While the UK indigenous oil and gas production has been dominated by the UKCS, smaller production levels do not necessarily mean that onshore fields do not have a strategic role to play. The Department for Communities and Local Government (DCLG) and British Geological Society have produced the Mineral Planning Factsheet 2011 (Onshore Oil and Gas) that provides an overview of onshore oil and gas supply in the UK and is intended to inform the planning process.

151 The Factsheet recognises that onshore oil and gas production makes a small, but important, contribution to supply and is beneficial in terms of proximity to demand. Whilst recognising that the Wytch Farm Oilfield in Dorset dominates onshore oil production, the Factsheet states that while most oil or gas fields are small in comparison, '*They have, and*

continue to make, a modest contribution to Britain's oil and gas requirements'. Although small, production from onshore oil and gas fields has to be seen in the context of declining national production from the North Sea fields, and their ability to offset some need to import, and that they offer a sustainable approach in terms of proximity.

152 Government does not seek to differentiate between the size or stage of projects, instead the aim is to maximize the potential of the UK's conventional oil and gas reserves in an environmentally acceptable manner. Maximisation of potential would include consideration of even relatively small fields.

153 National Planning Policy (NPPF) on minerals, which includes onshore oil and gas, recognises that minerals are a finite natural resource and can only be worked where they are found. The policy also recognises that it is important to make best use of them [minerals] to secure their long-term conservation and that minerals are essential to support sustainable economic growth and our quality of life. As explained above paragraph 147 of the NPPF states that when planning for on-shore oil and gas development, local planning authorities should clearly distinguish between the three phases of development (exploration, appraisal and production) and should address constraints on production and processing within areas that are licensed for oil and gas exploration or production.

154 The views of the Department of Energy and Climate Change (now BEIS) were sought on the issue of national need. BEIS has taken a decision not to comment on specific planning applications, although has no further guidance to offer planning authorities in relation to the issue of national need for oil and gas development, than that contained in NPPF and accompanying Planning Policy Guidance. The Government's stated aims of energy policy is to maximise indigenous onshore oil and gas where it is cost effective and in line with safety and environmental regulations to help ensure security of supply. The applicant is proposing an appraisal programme to determine whether the deposits can be economically exploited and appraisal is one stage in the process for the exploration of hydrocarbons.

Conclusion Need

155 Government policy makes it clear that oil and gas remains an important part of the UK's energy mix. Policies recognise the continuing importance of fossil fuels but aim to manage reliance on them, their potential environmental effects and the risks associated with security of supply. While the Government manages the transition to a low carbon energy mix this will mean that oil and gas remain key elements of the energy system for years to come (especially for transport and heating).

156 As can be seen from Government policy set out within the NPPF, the Annual Energy Statement, the Government's Energy Security Strategy the White Paper and BEIS statistics; the Government recognises there is a need to maximise indigenous oil and gas resources both onshore and offshore. Officers give significant weight to this.

157 Appraisal testing and further drilling is the next stage in the process of being able to evaluate the extent of the oil deposits and establish whether the reserves can be economically exploited in line with Government policy. Officers conclude that given the appraisal function of the development, it is not in conflict with the Government's climate change agenda. Once further testing and evaluation is concluded the site would be cleared, the soil returned and the site restored to agriculture and woodland, sustainable uses.

158 This leads Officer's to conclude that on the basis of Government guidance there is a national need for the development subject to the proposal satisfying other national policies and the policies of the Development Plan. This is considered further under individual issues later in the report.

HIGHWAYS, TRAFFIC & ACCESS

Surrey Minerals Plan Core Strategy Development Plan Document 2011(SMPCSDPD 2011)
Policy MC15 -Transport of Minerals
Reigate and Banstead Core Strategy 2014
Policy CS17 – Travel options and accessibility
Reigate and Banstead Borough Local Plan 2005 (RBBLP 2005)

159 The proposal to retain the site access onto the rural road known as Horse Hill (D332) and the impacts on local traffic and safety caused by protesters interrupting HGV movements to the site, have been the aspect of this proposal that has given rise to the leading local objection.

160 The SMP2011 recognises that one of the most significant impacts of mineral working in the county, and the one that usually causes the most public concern, is the lorry traffic generated from transporting the minerals. The plan goes on to say the nature of the market in Surrey means that lorries are used for transportation in the overwhelming majority of cases as this is the most cost effective means of transport. But as a consequence lorries also contribute to overall traffic congestion. Para 7.9 states that it is important to ensure the effects of traffic generated by mineral development on local communities, the environment and the local road network, are carefully considered. Para 7.10 goes on to state that the movement of minerals by road should as far as possible be confined to the motorway and primary route network with attention being given to the routeing of vehicles between the proposed development and the motorway and primary route network.

161 Policy MC15 (Transport of Minerals) of the SMPCSDPD 2011 states that applications for mineral development should include a transport assessment of potential impacts on highway safety, congestion and demand management and explore how movement of minerals within and outside the site will address issues of emissions control, energy efficiency and amenity. 'Mineral development involving transportation by road will be permitted only where:

(i) there is no practicable alternative to the use of road-based transport that would have a lower impact on communities and the environment;
(ii) the highway network is of an appropriate standard for use by the traffic generated by the development or can be suitably improved; and
(iii) arrangements for site access and the traffic generated by the development would not have any significant adverse impacts on highway safety, air quality, residential amenity, the environment or the effective operation of the highway network.'

162 Reigate and Banstead Local Plan Core Strategy 20142 strategic Policy MCS17: *Travel options and accessibility* states that the Council will work with Surrey County Council, the Highways Agency, rail and bus operators, neighbouring local authorities and developers to: 1) manage demand and reduce the need to travel by directing development to accessible locations in the borough; 2) improve the efficiency of the transport network by delivering improvements to the road network to meet all street users' needs, enhance accessibility along key corridors and accommodate the forecast increase in journeys; and 3) facilitate sustainable transport choices by requiring the provision of transport assessments for proposals which are likely to generate significant amounts of movement. Saved Policy Mo 5 (Design of Roads within New Development) of the RBBLP 2005 seeks to 'ensure that the arrangements for access and circulation are appropriate to the type of development proposed and the area in which it is located and do not aggravate traffic congestion, accident potential or create environmental disturbance in the vicinity. Where feasible, the number of access onto major roads will be reduced.' Access arrangements must be to approved standards and not cause an increase in danger to road users and pedestrians. The traffic aspects of a development are to be evaluated both in relation to

the internal layout of the new development and the effect of the completed development on the existing highway network. Saved Policy Mo 6 (Service Provision within New Development) states that provision for loading unloading and turning of service vehicles within the curtilage of a proposed development will normally be required.

163 Government policy on transportation and access is set out in the National Planning Policy Framework (NPPF). At paragraph 32[1] of the NPPF, it states that all developments that generate significant amounts of vehicle movements should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account whether: (i) the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure; (ii) safe and suitable access to the site can be achieved by all people; and improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

164 Paragraph 004[2] of the national Planning Practice Guidance explains that Transport Assessments and Statements are ways of assessing the potential transport impacts of developments (and they may propose mitigation measures to promote sustainable development. Where that mitigation relates to matters that can be addressed by management measures, the mitigation may inform the preparation of Travel Plans).

165 Transport Assessments are thorough assessments of the transport implications of development, and Transport Statements are a 'lighter-touch' evaluation to be used where this would be more proportionate to the potential impact of the development (i.e. in the case of developments with anticipated limited transport impacts).

166 Where the transport impacts of development are not significant, it may be that no Transport Assessment or Statement is required.

167 The application is accompanied by a Transport Statement (TS), which contains a description of the application site and the road network and accident data in the locality of the application site, details of the traffic generation and the proposed site access. Further transportation details have been submitted in a Transport Statement Addendum in support of the application to address initial comments the County Highway Authority made on the Transport Statement, which are as follows:

- The analysis in the TS is inconsistent. The traffic count data and analysis relates to the A217 Reigate Road but the accident data and analysis relates to Horse Hill. Both elements should be provided.
- The impact of the proposal on Horse Hill and the junction of Horse Hill with the A217 Reigate Road should be considered, taking into account the impact of the proposal plus then cumulative impacts with the approved Lomond Equestrian Centre Development (Appeal planning permission Ref: APP/B3600/A/14/2215569 dated 22 June 2015). The junction of Horse Hill and the A217 was an area of particular public and Member concern when the previous exploratory application was considered.
- Clarification of 'two-way HGV movements is to be provided.
- The CHA also questioned the timings of the traffic survey and August is an unsuitable month for a traffic survey. The CHA requests the applicant justify the 9%factor in the context of this particular location – proximity to Gatwick Airport and road diversions in the local area due to Flanchford Bridge reconstruction – rather than on a national basis or revisit the survey at a neutral time of year.
- Traffic surveys on Horse Hill will need to be undertaken.
- A transport management plan will be required to cover the construction, operation and reinstatement works at the site. At the minimum, the framework should be submitted

[1] NPPF Paragraphs 29 to 41 Promoting sustainable transport
[2] nPPG Paragraphs 001 to 015 Travel Plans, Transport Assessments and Statements

prior to the determination of the application although ideally the full plan should be submitted.

- The applicant will be expected to ensure that there are adequate facilities for keeping the highway clean and that they will cover the cost of rectifying and damage to the highway caused by vehicles accessing or egressing the site.

168 The updated Transport Statement Addendum includes an assessment, in the context of the proposal and existing vehicle movements relating to the wellsite, of the local highway network, accident data relating to this network and the application site's access, including a swept path analysis and site visibility splays. Based upon the conclusions drawn by this assessment the applicant has offered a range of measures which would mitigate the limited impact of the proposal in terms of the local highway network.

The Development

169 Access to the wellsite is via the existing already constructed site access on Horse Hill and internal access track, approved as part of the previous planning application (ref. RE10/2089).The access track is approximately 250m in length with tarmac at its junction with Horse Hill. The internal access road is laid to stone chip surface and the provision for loading unloading and turning of service vehicles is within the curtilage of the development.

170 The development divided into four phases. The applicant proposes there will be no more than 20 HGV movements (ten in and ten out) to the site per day across all four phases. It is the first three phases that will generate the most traffic movement and will last approximately 14 months. The potential traffic according to the phase of the development is set out below.

Table 1 Anticipated Number of Vehicles and Vehicle Movements by Phase.

Phase	**Work Stage**	**Duration**	**No. of daily HGV movements**
Phase 1	Site preparation	Approx 30 days in total	Approx 2 movements per day
	During EWT and short-term testing	Approx 180days in total	Up to 20 movements per day
Phase 2	During drilling operations	Approx 100 days in total	Up to 20 movements per day
	During EWT operations		
Phase 3	During drilling operations	Approx 110 days in total	Up to 20 movements per day
	During EWT		
Phase 4	Site clearance, plug and abandon wells and site restoration.	Around 5 days for well plug and abandon	Up to 10 per day
		A further 41 days over a period of 22 months	Up to 3 per day

171 The proposed HGV movements include vehicles numbers required to transport plant and equipment to mobilise the site for the next stage of appraisal operations. The HGV movements include for a workover rig or drilling rig to be brought to and from the site. During EWTs, crude oil or water produced will be exported via HGV road tankers and fresh water supply will be also brought to the site via HGV road tanker.

172 HGV movements over all work stages would be limited 0700 – 1900 Mondays to Fridays; and 0700 – 1300 Saturdays; and on no other days.

173 The applicant states that during the operational phases there will be up to 33 full time staff on site, including security personnel. Approximately 8-10 people will temporarily reside on the site whilst others are likely to be bussed in on a daily basis. Typically two minibuses would access the site twice a day to drop off staff first thing and collect staff again in the evening.

174 The applicant proposes all light vehicle and HGV parking will take place within the site and no parking on external network will result from the proposals.

Assessment of Highways, Traffic and Access

175 The HH-1 wellsite access is located on Horse Hill (D332) some 1.5 km north of the junction of Horse Hill with the Reigate Road (A217) and some 800m south of the junction with Collendean Lane (D330). The D332 is known as Horse Hill from its southern junction with the A217 until its junction with Crutchfield Lane (D333) where it becomes known as Ironsbottom through to the junction with the A217 at its northern end. The A217 links Reigate and the A25 and the M25 motorway in the north with A23 north of Gatwick Airport and south west of Horley. Horse Hill is a rural, two-way single carriageway road, which has some residential properties fronting onto the road.

176 Reigate and Banstead Borough Council have not commented on the application. Mole Valley District Council have not objected to the proposal, although request the impacts of the development are properly considered and suitable Construction Management Plan conditions are put in place should planning permission be granted.

177 However, Salfords and Sidlow Parish Council object to the application on highways grounds. Historically protestor activity of slow walking site HGV traffic, combined with the police response, has meant the there have been occasions when the highway leading to the site was blocked or obstructed. The Parish Council has also commented that provisions should be made for contingency in the event of protester activity and where site HGV traffic could be delayed or diverted. Norwood Hill Residents echo the Parish Councils concerns of the impacts to local traffic the protesters cause, which is of great nuisance and inconvenience to local residents and that the impacts of protestors and police on the roads is inseparable from the issue of highways and nature and of volume of traffic. The Campaign to Protect Rural England (CPRE) further echo's the issues of protestor activity which have caused highway impacts and nuisance to the residents. Betchworth Parish Council has commented the rural roads around Betchworth village are not suitable for frequent use of large heavy goods vehicles. The Charlwood Society commented the applicant has not identified Horse Hill forms part of the Surrey Cycle Route.

178 Much of the local objection on highways grounds relate to the impacts on the roads caused by protesters and police when HGVs are visiting the site. Some residents have raised concern of the suitability of Horse Hill to carry HGV traffic including at the junction of the A217, the risks of accidents caused by the development to other road users including pedestrians, cyclists and horse riders. Further local resident concern is of the damage site HGV traffic will cause to the local road surface and verges and raised concern arising from the location of site access.

179 The County Highway Authority (CHA) notes the applicants Transport Statement Addendum includes traffic count and accident data for Horse Hill and the A217 Reigate Road, with the traffic count being repeated in January 2017 and therefore those elements of concern have been addressed. The Addendum also takes into account movements from the Lomond Equestrian Centre land improvement scheme, which the CHA is now satisfied with.

180 The results are presented as 24-hour averages but the CHA considers that the 12- hour working day average (7am to 7pm) is more appropriate, as 24hour deliveries are not proposed.

181 The CHA notes the Addendum states that the existing base level of HGVs on Horse Hill is 44 (24-hour average). The 24-hour figures have higher background HGV flows resulting in a smaller relative impact of the applicant's proposals. The CHA has calculated from the applicants traffic count data the existing base level of HGVs on Horse Hill for the more appropriate 5 day 12-hour average is 35 HGVs per day.

182 The CHA has raised concern with the applicant's work undertaken for the impact of the development on Horse Hill and A217 Reigate Road junction, which has not taken account of an increase in turning movements through the junction or any impact they may have. The existing 35 HGV baseline movements into or out of Horse Hill will increase up to 95 with the Lomond Equestrian Centre Development and up to 115 with the wellsite works, assuming works are concurrent. There have been two turning manoeuvre accidents at the Horse Hill/A217 junction in the past 5 years. The CHA advises that whilst this does not give cause for concern it is indicative of a junction where particular care needs to be taken, especially due to the types of HGV vehicles associated with the development which are slow moving.

183 As the applicant has not considered this issue or undertaken turning counts at the junction the CHA has undertaken a sensitivity test. The applicant is proposing there would be a maximum of 20 HGV movements (10 in and 10 out) for the development. Based on the more appropriate 5day 12- hour average, the CHA calculates traffic flow as 1661 vehicles/ 18 HGVs travelling northwest (i.e. turning from the A217 onto Horse Hill) and 1700 vehicles/ 17HGVs travelling southeast (i.e. turning from Horse Hill onto the A217). Assuming a 50/50 split the additional HGV movements would increase the overall traffic levels by 2 %, but would increase HGVs by 114% without the Lomond HGV traffic, although by 42% with the Lomond maximum HGV traffic.

184 The CHA acknowledges that the impact on overall turning movements at the junction is not significant, but it is material in terms of an increase in HGV's. As such a transport management plan will need to consider whether any traffic management is required at the Horse Hill/ A217 junction, both in terms of the increase in number of HGV turning movements and particularly in respect of the size of HGVs.

185 Strong local concern has been raised in respect of the traffic impacts protesters will cause on Horse Hill when HGVs are travelling to and from the site. While the activities of protestors and the police is not material as a planning policy consideration, the CHA acknowledges the issue and advised that a transport management plan will also need to consider contingency measures in the event protesters delay HGVs travelling along Horse Hill to the site. The CHA would not wish to see a situation resulting in vehicles queuing to enter Horse Hill on the A217.

186 Some local residents have objected that Horse Hill and surrounding roads are not suitable for the large HGVs especial for moving rigs to and from the site and may cause highway blockage, damage to the carriageway and verges and are potential dangerous. The CHA acknowledges that the HGV traffic generation will be no more than 20 HGV movements per day in all the phases and the Transport Statement Addendum provides a breakdown of the activities across the four phases, set out in the table above.

187 However, neither the Transport Statement, the Addendum nor the Planning Statement give any indication of the size of HGV's. Clearly some vehicles will be larger than others especially during workover rig or drilling rig mobilisation and demobilisation and may require specific traffic management in order to access the site. As the applicant has not included these details in the application transport proposals the CHA requested this detail will need to be addressed in a transport management plan.

188 The Transport Statement submitted with the application included traffic surveys undertaken on between 4 August and 10 August 2016, although only for the A217. The applicant undertook a further speed survey and an automatic traffic count including for both Horse Hill and the A217 between 21 January and 27 January which is set out in the Addendum.

189 A concern of local residents is the risks of accident caused by the HGV traffic proposed for the development to other road users, including pedestrians, cyclists and horse riders.

190 The speed limit on Horse Hill is set at 40 miles per hour (mph) however; the applicants January 2017 survey showed that the 24- hour 7 day average 85th percentile speed on Horse Hill is 49.2 mph northbound and 50.4 mph southbound, showing speeds exceeding the speed limit. The traffic count showed that the weekday average 24 hour flow was a total of 3,342 vehicles, of which 44 were HGV's.

191 A five year accident record for Horse Hill between and including, its junction with the A217 to the south of the site, and for the A217 has been considered by the applicant. The applicant's data shows that for Horse Hill during the past 5 years there was one recorded collision approximately 200m south of the site access and the accident resulted in serious injury. No other accidents had been recorded within the 500m study area of the site access to the north or the south. The data shows there were 2 accidents in the last 5 years at the junction of Horse Hill and the A217. There were three further collisions at the Mill Lane & A217 priority junction just south of the Horse Hill Junction all three accidents resulted in slight injury. The applicant has reviewed the recorded accident data for clusters which might suggest a deficiency in highway design at a specific location within the study area. There are no common set of criteria to define an accident cluster, instead the applicant has applied the criteria of " a junction or 100 metre length of road (in 5 year period) with: 6 or more injury accidents; 3 or more fatal or serious accidents; or 5 or more injury accidents providing that one of them is fatal or serious. Based on this criteria the assessment has not identified accident clusters in the study area.

192 Residents have commented that the accident statistics reported do not reflect the accidents and near misses that have taken place. However, the Highway Authority has assessed the accident record in the vicinity of the site and found no evidence to suggest that more accidents have taken place or that a temporary increase in traffic (both HGV and non HGV) would exacerbate the current situation. As stated in paragraph 187 above the CHA has advised that a transport management plan will need to consider whether any traffic management is required at the junction at the junction of Horse Hill/ A217, both in terms of the increase in number of HGV turning movements and more particularly, in respect of the size of HGVs.

193 Access to the wellsite is via the existing already constructed site access on Horse Hill and internal access track, approved as part of the previous planning application (ref. RE10/2089). Local objection on highways grounds have raised concern of location of the site access on Horse Hill, especially when large HGV during rig mobilisation and demobilisation swing out into the road; and concerns of the vehicle routing. Salfords and Sidlow Parish Council have commented that site access visibility splays occupy the highway and therefore to ensure other road users are not put at risk, must be kept clear of static traffic and maintained in a good and clean condition.

194 The CHA has not raised concern in terms of the location of the existing site access. However, the CHA notes that the access drawing SCP/16286/FO1 Revision A states 2.4m x160m visibility splays will be provided for the site access. The CHA has raised concern that the visibility splay to the left (the leading and most important visibility splays) is not fully shown and scales to 147m, and the visibility splay to the right shows the splay actually meets the carriageway edge at 40m not 160m. While the CHA does not consider visibility will be problematic, due to inaccuracies with the applicant's visibility proposals,

has requested a condition that the development should not commence until the access to Horse Hill has been provided with visibility splays of 2.4 x160m in both direction and thereafter the visibility zones kept permanently clear of any obstruction over 1.05m high.

195 Some local residents have raised concern of the damage HGVs will cause to Horse Hill, especially the verges. The CHA has requested that a transport management plan will need to include a commitment for the operator to fund any damage caused by the development between the site and A217. In terms of vehicle routing, a further source of concern of local residents, in addition to the issues discussed above for the CHA has requested a condition restricting all HGVs to access the site form the south east via the Horse Hill / A217 junction and the detail of vehicle routing to be included in a transport management plan.

196 The applicant has stated that the provision of an area of hardstanding within the site reduces the risk of mud being trafficked onto the public highway and associated nuisance this can cause. The CHA has also requested that a transport management includes proposals for keeping the highway clean

197 As an additional point, the CHA had requested that a transport management plan to cover all of the phases of the development that also includes vehicle routing be submitted. However, the applicant has submitted a ‘framework’ traffic management plan which consists of the detail approved for the exploratory wellsite planning permission (ref. RE10/2089). The CHA therefore will require a transport management plan to consider the specific impacts of this current proposal.

198 The County Highway Authority concludes that while there are some shortcomings with the transportation information submitted for the application and view of the above, the development can be safely accommodated on the highway network in the vicinity of the site.

199 SMPCSDPD 2011 Policy MC15 (Transport of Minerals) states the assessment of potential impacts should consider emission control in relation to the movement of minerals within and outside the site. The level of traffic generated by each phase is set out in the table above. The site does not fall within an Air Quality Management Area (AQMA) the closest AQMA is found at Horley, 2.5 km south east of the site. The proposed site would be located in a rural area where there is little industrial activity to affect air quality levels and traffic is the main pollution source. Overall the existing air quality in the locality of the site was found to be generally good. The pollutants related to traffic emissions are nitrogen dioxide, PM10 and PM25 whose air quality objectives relate to annual mean concentrations or to the number of exceedences of an air quality standard within a calendar year.

200 The applicant’s assessment has compared the number of vehicle trips generated by different phases of the development with the threshold criteria set out in the EPUK./IAQM guidance for requiring an air quality assessment. The proposed development will generate a maximum of 20 HGV movements per day. The guidance stipulates that, within or adjacent to an AQMA, an increase of less than 25 HGV or 100 LDV movements a day is unlikely to lead to significant air quality impacts. The County Air Quality Consultant (CAQC) has assessed the applicant’s air quality proposals and notes that the applicant has screened out the need of an assessment of vehicle-related emissions as the threshold criteria are not exceeded. Based on the applicants proposed HGV movements the CAQC agrees there is no necessity to assess vehicle related emissions and agrees that the impacts of emission from proposed vehicle movements are negligible. Given the above and the temporary nature and scale of the development, Officers are satisfied that any measurable impact on air quality caused by traffic associated with the development would be negligible. The likely impacts on air quality from the proposed development are addressed in further detail later in this report.

201 SMPCSDPD 2011 Policy MC15 (Transport of Minerals) also states that mineral development involving the transportation by road will be permitted where there is no practical alternative to road based transport that would have a lower impact on communities and the environment. As discussed above the applicant is proposing a maximum of 20 HGV movements per day for the first three main operational phases of the development that will last for approximately 14 months, after which HGV movements would reduce by the final fourth phase which would be for clearance, well abandonment and restoration of the site. HGV movements during the main operation 14 month period will involve delivering materials, plant and equipment to the site including a workover rig or drilling rig. During testing any produced oil or water will be removed from the site by HGV road tanker. There are no rail facilities in close proximity to the site and even if a rail facility were nearby the plant, equipment, materials would all need to be transported by road from the rail facility to the site. Officers consider the scale of the development and its nature means that rail transport is not a practicable alternative in this case and would not lower the impact on the residents and environment in the locality of Horse Hill. Similarly, Officers recognise that Surrey does have any opportunities for the movement of materials, equipment and personnel by water within any practical distance of the proposed drillsite.

Conclusion Highways, Traffic and Access

202 In view of the above, the County Highway Authority raises no objection to the proposal in terms of the number of vehicle movements proposed, the capacity of the highway network, on highway safety and the access to the application site, provided the recommended conditions be attached to any planning permission. Taking all these matters into account Officers consider that from a traffic, access, highway capacity, and safety point of view the proposal is acceptable. Accordingly, Officers do not consider that the proposal conflicts with Policy MC15 (Transport of Minerals) of the SMPCSDPD 2011, RBLP CS 2014 Policy CS17, and RBBLP 2005 saved Policies Mo 5 (Design of Roads within New Development) and Policy Mo 6 (Service Provision within New Development).

ENVIRONMENT & AMENITY

Surrey Minerals Plan Core Strategy Development Plan Document 2011 (SMPCSDPD 2011)
Policy MC12 Oil and Gas Development
Policy MC14 Reducing the Adverse Impacts of Mineral Development
Policy MC17 Restoring Mineral Workings
Policy MC18 Restoration and Enhancement
Reigate and Banstead Local Plan Core Strategy 2014 (RBLPCS 2014)
Policy CS10 Sustainable Development
Reigate and Banstead Local Plan 2005 (Saved Policies Core Strategy 2014
Policy Pc 2D Potential SNCI's
Policy Pc3 Woodland
Policy Pc4 Tree Protection
Policy Ho10 Noise
Policy Ut4 Flooding

Introduction

203 There can be a wide range of potential environmental impacts associated with mineral development. Policy MC14 of the SMPCSDPD2011 states that mineral development will be permitted only where a need has been demonstrated and the applicant has provided information sufficient for the mineral planning authority to be satisfied that there would be no significant adverse impacts arising from the development. The policy sets out a number of criteria which, when determining a planning application for minerals development, should be considered in terms of any potential impacts. The criteria in the policy relevant to this planning application are: i) noise, dust, fumes, vibration, illumination; ii) flood risk, water quality and land drainage; iii) the appearance, quality and character of the landscape and any features that contribute to its distinctiveness; iv) the

natural environment and biodiversity; v) sites of archaeological interest and structures of historic interest and their setting; vi) the rights of way network; vii) the use of land and soil resources; vii) the need to manage the risk of bird strike to aircraft; and ix) cumulative impacts arising from the interactions between mineral developments, and between mineral and other forms of development.

204 With regards to oil and gas development paragraph 5.37 of the SMPCSDPD2011 recognises there are three separate phases of development, comprising exploration, appraisal and production. Applications for exploratory wells will be need to consider locating sites to minimise intrusion, controlling vehicular activity and vehicle routing, and controlling noise and light emissions from drilling rigs especially during night-time operations.

205 Specifically for the appraisal stage paragraph 5.38 of the SMPCSDPD2011 makes clear that proposals for appraisal operations will need to consider the above issues afresh, given a potential of further applications for production. It also recognises the appraisal stage may require the drilling of further wells to determine the extent of a field. This includes directional drilling which may offer the prospect of reducing impacts on particular features, although there are practical limits to how far this can be used. Policy MC12 of the SMPCSDPD2011 states that planning applications for drilling to appraise potential oil or gas fields will only be permitted where the need to confirm the nature and extent of the resource, and potential means of its recovery, has been established. Well sites, including the re-use of wellheads used at the exploratory stage, should be located such that there are no significant adverse impacts.

206 At the strategic level the RBLPCS2014 recognises a commitment by the Council to ensure that future development in the borough is achieved in a sustainable way. Policy CS10 (Sustainable development) sets out in ten points a list of criteria that development proposal should consider in order to be considered sustainable. Of the ten criteria relevant to this proposal development will 1) make efficient use of land, giving priority to previously developed land; 2) respect the character of the local area; 4) protect the green fabric of the borough; 5) be designed to minimise pollution, including air, noise and light and to safeguard water quality; and 10) be located to minimise flood risk and manage flood risk through the use of SuDS.

Landscape and Visual Impact

207 The application site extents to some 2.08ha in area and consists of the existing HH-1 wellsite, including the well pad and access track. The well pad comprises the HH-1 wellhead, concrete cellar, and hardstanding, and surrounded by perimeter ditches. Two concrete plinths are situated on the northern edge of the well pad. There are existing soil bunds and security fencing around the periphery of the well pad. The access road is made up of aggregate and is approximately 250m in length with a tarmac entrance where it meets Horse Hill. The well pad has been cleared of plant and equipment and temporary buildings.

208 To accompany the planning application the applicant has submitted a Landscape and Visual Appraisal (LVA) as opposed to a Landscape and Visual Impact Assessment (LVIA) that would be required by the EIA process. This document sets out its purpose and methodology, landscape planning context, baseline condition, assessment of effects, mitigation measures and conclusion. The County Landscape Architect has acknowledged the submitted LVA accords with good landscape practice, in line with the guidance as defined in the '*Guidelines for Landscape and Visual Impact Assessment Third Edition*' although notes, while the LVA has assessed the main site enabling and operational phases of the development, it does not include an assessment of decommissioning and restoration elements of the proposal.

209 The HH-1 wellsite is found in a rural area within the Dorking to Hookwood Low Weald which forms part of the Lower Weald Farmland character area as defined in the Surrey Landscape Character Assessment (2015) which replaced the Future of Surrey's Landscape and Woodlands 1997 document. This Lower Wealden Landscape is characterised by a landform that is generally undulating, underlain by Wealden group mudstone, siltstone and sandstone solid geology. The farmland landscape is an irregular pattern of medium, occasionally large scale arable fields. The smaller pastoral fields are located along watercourses, and there are paddocks and small holdings associated with farmsteads and settlements. There are well maintained hedgerows but with fewer trees in the hedgerows than the wooded Low Weald to the west. Woodland blocks, including ancient woodland, are dispersed and relatively small. There are unconstrained views, occasionally framed by woodland, across the character area, with a more open feel than the less maintained and more treed wooded low weald to the west. The A217 runs north-south through the western part of the character area.

210 The wellsite compound is located within a field which has woodland or mature hedgerows on all four boundaries. The access track runs through woodland and then alongside the southern boundary of a field. Either side of site access is the woodland belt where it fronts Horse Hill. The field in which the access track and wellsite compound are located is found to the north of the hedgerow dividing the field from Footpath 414.

211 The topography of the application site is generally flat at c.69m AOD. Beyond the site to the north and west the land rises to ridgeline approximately 1km from the site boundary. The ridgeline continues to 5km and beyond. To the south and east ground levels remain predominantly flat. There are no natural water features within the site although there are two ponds within woodland to north. The site is not subject to any designations relating to landscape quality.

212 National policy set out in the NPPF para 109 looks to the planning system to contribute and enhance the natural and local environment by protecting and enhancing valued landscapes. Policy MC14 of the SMP2011 criteria (iii) seeks to protect the appearance, quality and character of the landscape.

213 RBBLP 2005 Saved Policy Pc4 (Tree Protection) states that trees, individually or in groups, areas or woodlands make a particularly valuable contribution to the visual amenity of the Borough. Emphasis is given to the retention of existing trees when considering applications and the protection during the construction period is highlighted. More than 'one for one' replacement for lost trees is sought by the policy.

214 The activity and movement associated with the development would involve disturbance in some degree to the landscape during the temporary three year period sought. The proposal includes retention of the existing wellsite, including a 3m high soil bund constructed along the northern edge of the well pad compound which provides some visual screening and removal of two trees on the southern edge of the well pad and a small group of trees in the woodland area adjacent the access track. A 2.4 m high metal V-mesh fencing will be erected around the perimeter of the site.

215 The applicants study area for the LVA has been defined at 2km from the site boundary. The applicant states the key impacts to landscape and visual amenity would be primarily be attributed to the man-made vertical elements that would be brought on to the site for the approximate 14month operational period. This will include plant, equipment, and temporary buildings the highest being 3.75m high, 10m high flare and vent stack, either a temporary 32m high workover rig or 37m high drilling rig depending on the phase. There will be impacts from noise, and also from lighting especially at night time. In addition, there will be impacts of traffic movement accessing the site and travelling along the access track resulting in localised effects experienced by the nearest sensitive receptors to the south.

216 Representations received on the application have raised concern of the visual impacts that will be caused by the development, especially from site illumination and at night time. The concern is that existing vegetation, which loses leaf during the winter months, does sufficiently screen the activities of the site from nearby residents. Some local residents suggest that additional screening to the site must be provided to screen the site from the nearby properties and businesses.

217 The applicant has assessed the effects of the development on the landscape character. The main receptors have been identified as landscape fabric and habitats, and the Low Wealden landscape. The applicant identifies the main effects will arise during drilling operations in Phases 2 and 3 where there will be temporary conflict between man-made structures and lower-lying woodland. The applicant concludes that in terms of the effects on landscape character there would only be very local impact arising from the development.

218 In terms of visual amenity assessment the applicant has assessed the visual impact of development for the main viewpoint receptors to the site. These include public rights of way which includes the Public Footpath 414 immediately to the south of the site and Public Footpath 338a approximately 400m north of site. The applicant has provided a visual assessment that covers viewpoints along the route of both footpaths. The applicant identifies the nearest residential properties within 500m of the site being Wrays Farm House, Five Acres, Lomond, Rushmeads and Rushmeads Cottage to the south and east of the site boundary. To north of the site are the properties of High Trees Court, Wrayswood and Horshill Cottage. Further distant is Farriers Grange at 685m to the south east. The applicant also conducted visual assessment from nearby roads including Horse Hill, Collendean Lane and Norwood Hill Road.

219 The applicant concludes that the visual analysis has found that the frequency of woodland blocks, combined with a relatively low lying site and nearby ridgeline, limit the extent to which effects impact the selected visual receptors. The greatest potential for adverse visual impacts effects is on users of Public Footpath 414 to the west of the site extending along the route that follows parallel with the southern boundary of the site.

220 The County Landscape Architect (CLA) has reviewed the applicants visual and landscape proposal and comments that the submitted LVA has effectively assessed the development through construction and operation phases, and concurs with the findings on these aspects in the landscape appraisal. The site is located within a series of woodland blocks which together restrict the visual effect in the wider landscape, with the main adverse effects on the users of the footpath close by.

221 However, following amending information submitted for the application in May 2017 in response to consultees concerns, the CLA notes that no additional information has been provided in respect of the landscape and visual appraisal. The CLA notes that the applicant has provided separately, additional information on restoration and reinstatement proposals, and fencing layout and detail. As the decommissioning and restoration phase have not been assessed in the landscape and visual appraisal, the CLA does not consider this approach to be in accordance with the *Guidelines for Landscape and Visual Impact Assessment Third Edition* which requires an adequate assessment of the all aspects and stages of the development. Notwithstanding this issue, the CLA has reviewed the additional information submitted for restoration, and confirms that the general principle of the proposed restoration scheme, with a mixture of woodland and agricultural grassland, is still considered acceptable.

222 The CLA also notes the applicant is proposing V-mesh metal security fencing and that they may seek to acoustically clad the fencing to screen nearby receptors. However, the need to acoustically clad the fence has not been made clear in the landscape assessment. The acceptability of fencing in the landscape depends on the design. Simple

V-mesh fencing as proposed would minimise the adverse landscape effects. This would not necessarily be the case for acoustic or other solid fencing. The CLA comments that if the need to clad the fence is demonstrated, the design must be secured by condition to minimise any adverse impacts on the landscape.

223 Trees and woodlands make a valuable contribution to the visual amenity of a locality and Saved Policy Pc4 of the Reigate & Banstead Local Plan 2005 emphasises the importance of the retention of trees and the adequacy of their protection during site construction. The applicant is proposing to fell two Category B trees on the southern boundary of the site for security and safety reasons, and the partial removal of a group of Category C trees in the woodland area adjacent to the access track to allow access for site traffic. The felling of the two mature oak trees has been raised as an issue by Norwood Hill Residents and representations who consider the trees provide necessary screening of the site. From a landscape and visual point of view the CLA has not raised concern with the felling of the trees and no comments have been received from the Arboriculturist. The CLA has however requested a detailed planting scheme for the development be secured by condition and which is to include replacement tree planting. The removal of the proposed trees is dealt with in more detail in the ecology section of the report.

224 The visual impact of artificial lighting on the night sky is an issue in rural areas and there is lighting associated with the drillsite compound, as drilling would take place 24 hours a day. The vegetation surrounding the site would provide substantial screening, particularly at the lower level, although high level lighting, including a red aircraft warning light on the workover rig or drilling rig will be noticed above the vegetation canopy. The applicant has submitted lighting information which has been assessed by the County's Environmental Consultant (Lighting) who considers the applicants lighting scheme to be a minimal scheme and has set out recommendations for site lighting. Further assessment of site lighting can be found in the later Lighting section in this report.

Conclusion Landscape and Visual Impact

225 The County's Landscape Officer has reviewed the application and further landscape information submitted by the applicant and has considered any visual impact issues in the locality of the site and along the nearby right of way. The CLA has confirmed the site is located within a series of woodland blocks which together restrict the visual effect in the wider landscape, with the main adverse effects on the users of the footpath close by. Based on the above and given that the CLA raises no objection, Officers therefore consider the proposal acceptable in terms of SMPCSDPD 2011 Policy MC14 subject to the recommended conditions.

Ecology and Biodiversity

226 As outlined above, Policy MC14 of the SMPCSDPD 2011 (Reducing the Adverse Impacts of Mineral Development) requires consideration to the natural environment including biodiversity. It states that mineral development will be permitted only where a need has been demonstrated and sufficient information has been provided for the mineral planning authority to be satisfied that there would be no significant impacts arising from the development. A number of issues are identified in 10 points including iv) the natural environment, biodiversity and geological conservation interests. Policy MC12 (Oil and Gas Development) states that exploratory drilling will only be permitted where the MPA is satisfied that the site has been selected to minimise adverse impacts on the environment. Minerals working can bring opportunities for enhancement. Policy MC18 states that the MPA will encourage and work with mineral operators and landowners to deliver benefits such as enhancement of biodiversity interests.

227 Saved Policy Pc3 of the RBBLP 2005 (Woodlands) seeks to retain Ancient Woodland but also states that the Borough Council will seek to retain all existing woodlands and actively promote a larger extent of woodland by encouragement of appropriate planting. There will

be a general presumption in favour of the planting of broadleaf species. Saved Policy Pc4 of the RBBLP 2005 (Tree Protection) emphasises the importance of the retention of trees and the adequacy of their protection during site construction. The policy requires compliance with the latest arboricultural and silvicultural standards in respect of any tree works or development near to trees.

228 Potential Sites of Nature Conservation Importance (pSNCI) have been identified in the RBBLP 2005, two of which are to the north east of the proposed site. Saved Policy Pc 2D (Potential SNCI's) states that development affecting potential SNCIs will only be permitted if it can be demonstrated that it will not materially harm the nature conservation value or wildlife interest of the sites or the need for the development outweighs the harm. Both pSNCIs are found to the north east of the application site and are divided from the site by the road Horse Hill and a distance of some 400 m and 930 m respectively. The closest pSNCI abuts Horse Hill but as it is located north of the site access, would not be affected by vehicles accessing or travelling to the drillsite.

229 Government policy on ecology and biodiversity at paragraph 109[3] of the NPPF requires the planning system to contribute and enhance the natural environment by minimising impacts on biodiversity and providing net gains to biodiversity where possible. Paragraph 118 states that when determining planning applications a number of principles should be considered in order to conserve and enhance biodiversity. These principles, which are relevant to this proposal, include if significant harm from a development cannot be avoided or mitigated then the proposal should be refused; opportunities to incorporate biodiversity in and around development should be encouraged; and that planning permission which would result in irreplaceable habitat, ancient woodland and veteran trees being lost should be refused.

230 The Government guidance at nPPG paragraph 016[4] states that an ecological survey will be necessary in advance of a planning application if the type and location of development are such that the impact on biodiversity may be significant and existing information is lacking or where protected species may be present. Paragraph 017 of the guidance advises that biodiversity enhancements can take the form of habitat restoration, re-creation and expansion; improved links between sites; buffering of existing important sites; new biodiversity features; and securing management for long term enhancement. Paragraph 018 outlines the mitigation hierarchy for biodiversity which includes avoidance, mitigation and compensation which, if a development cannot satisfy these requirements, it should be refused.

231 The applicant originally submitted with the application a preliminary ecology appraisal, protected species survey report and an arboricultural assessment. Then in May 2017 the applicant submitted additional ecological information for protected species. The main ecological issues to consider are the potential impact on the trees and protected species.

Woodland

232 Trees and woodlands make a valuable contribution to the visual amenity of a locality and Saved Policy Pc4 of the Reigate & Banstead Local Plan 2005 emphasises the importance of the retention of trees and the adequacy of their protection during site construction.

233 The construction of the original wellsite site access track and site access required the removal of 6 trees and 3 overhanging branches in addition to other scrub vegetation. These works were approved under planning reference RE10/2089.

234 For the appraisal phase the applicant proposes further tree removal. The applicant's arboricultural assessment includes Tree Impact Assessment drawing number Plan EDP 2

[3] NPPF paragraphs 109 to 125 Conserving and enhancing the natural environment
[4] nPPG paragraphs 001 to 026 Natural environment

that identifies the existing trees found at the site and references the trees to be removed and retained. The applicant states that to facilitate some further construction works for the access track will require partial removal of a group of trees (group item G34) in the woodland area adjacent to the existing access track. The applicant also proposes that two mature trees on the southern boundary of the site (Items T44 and T49) will require removal for security reasons due to their proximity to the well pad.

235 The applicants arboricultural assessment includes a desk top study and tree survey based on the guidelines set out in BS5837:2012 *'Trees in Relation to Design, Demolition and Construction'*. The assessment states consultation with Reigate and Banstead Borough Council has confirmed there to be no tree preservation orders registered against the site. Nor is any part of the site contained within a conservation area. To ensure adequate provision is made for the retention of trees, recommended root protection areas have been calculated according to BS5837:2012.

236 The survey has assessed 41 individual trees, seven groups of trees and one hedgerow totalling 49 items. All of the surveyed items are native or naturalised species, indicative of a site in the rural environment. The majority of species are oaks, there are also several ash with the remainder being a mixture of maple, prunus, willow, apple, hawthorn and holly. The trees have been graded according to BS5837:2012 categories. The survey identified 2 category A items, of high quality and value, 31 category B items, of moderate quality, 12 category C items of low quality and value, and 4 category U items of poor quality and value.

237 The applicant's proposal will mean that two category B items will be lost in order to maintain site security and one category C group item will be partially lost for alignment of the additional construction works to the access track.

238 At the time of the exploratory wellsite application the County Ecologist and Biodiversity Manager consulted the Surrey Ancient Woodland Survey Officer with regard to the woodland adjacent to Horse Hill wellsite. The Surrey Ancient Woodland Survey Officer advised that the woodland may have a long history as a scrub/furze wood fuel supply for brick and tile works historically located to the south of the site and on the basis of the evidence the woodland area has not been included as ancient woodland in the Surrey ancient woodland inventory.

239 Norwood Hill Residents have raised an objection to felling of the two mature category B trees on the southern boundary of the well pad which they consider is unnecessary and suggesting that if the operator had concerns about site security the two mature trees should be wrapped in razor wire.

240 Neither, Natural England, the County Landscape Architect or Surrey Wildlife Trust have raised concern regarding the trees to be removed. The Arboriculturist has been consulted on the application although has not raised comment on the proposed tree removal. The County Ecologist queried the trees to be removed from a protected species point of view in terms of bats and also limited detail for site restoration has been provided. The CE comments are addressed in further detail in the protected species and restoration sections below in the report.

241 When the site access track was assessed as part of the original exploratory wellsite application (ref.RE10/2089), as the track would pass close to existing trees especially through the woodland area, it was considered tree root protection would be of paramount importance, both during its construction and its removal. As a result a condition was imposed on planning reference RE10/2089 requiring details of the methods to be used during removal of the access track and site access bellmouth, and restoration of the land to ensure tree root protection and to required standards. While the applicant has confirmed all elements of the access track will be removed on restoration of the wellsite, no detail has been provided on the methods for restoring the access track and protection

of tree roots. Officers therefore consider it appropriate a similar condition can be imposed on any new consent.

242 Saved Policy Pc4 of the Reigate & Banstead Local Plan 2005 seeks more than one for one replacement for lost trees. As part of this application the applicant originally stated that trees would be replanted and a programme of landscaping would be implemented as agreed with the County Council .Then in May 2017 the applicant provided further information in respect of reinstatement operations for restoring the site which included some limited planting detail. The County Landscape Architect has commented that while they consider the reinstatement operations for restoring soils are generally acceptable, insufficient information is provided for a planting scheme. The CLA has therefore requested that a detailed planting scheme, and a scheme of 5 year aftercare be secured by condition.

243 Officers recognise there is temporary adverse impact on the area of woodland through which the access and access track is constructed, but with adequate tree protection and a scheme of restoration planting there should be no significant long term impact.

Semi-Improved Neutral Grassland

244 The well pad compound is constructed in the south western section of an agricultural field which contained semi-improved neutral grassland that had been regularly cut for hay. The applicant proposes that when the site is restored the grassland would be reinstated. As the applicant has not provided any detailed planting scheme for restoring the site, the CLA has recommended a planting scheme is provided for the application that the agricultural grassland is re-seeded with a native seed mixture. It is considered feasible that the grassland can be well restored at the end of the temporary period and none of the consultees have expressed concern regarding this aspect of the application.

Protected Species

245 As part of this application the applicant has originally submitted a Preliminary Ecological Appraisal and a protected species survey report, and in May 2017 information on mitigation measures to reduce the impacts on protected or notable species.

246 Species conservation protection is provided for in legislation both at the European and national level and there are various levels of protection afforded to a range of species. The presence of a protected species is a material consideration in determining planning applications.

247 The Habitats Directive is transposed into national law in England by means of the Conservation of Habitats and Species Regulations 2010 and Wildlife and Countryside Act 1981 (as amended) that implements the Birds Directive (1979) and the Berne Convention (1979). Under the Act, the law protects all wild birds, their nests and eggs, with some rare species afforded special protection. Although originally protection was developed to prevent egg stealing and cruelty to wild birds, its modern interpretation also relates to the activities of land managers and developers. Further legislation is afforded by the Natural Environment and Rural Communities (NERC) Act (2006), the Countryside and Rights of Way Act 2000 (as amended), the Wild Mammals Act 1996 and the Protection of Badgers Act 1992,

248 Government policy in the NNPF *conserving and enhancing the natural environment* (paragraphs 109 – 125) requires the planning system to conserve and enhance the natural and local environment by minimising impacts on biodiversity and opportunities to incorporate biodiversity in and around development should be encouraged. When determining planning application local planning authorities should apply the principle of avoiding significant harm to protected species and habitats and, if not possible, mitigate impacts, or, as a last resort, provide adequate compensation. The NPPF should be read

in conjunction with the Government Circular: 'Biodiversity and Geological Conservation- Statutory Obligations and their Impact within the Planning System', (Circular 06/05).

249 The applicant's ecological assessment is provided by a Preliminary Ecological Appraisal (2016) and Protected Species Survey Report (2016). Ecological surveys were undertaken for protected species including bats, great crested newts, birds, badgers, dormouse and reptiles. The survey report recorded no evidence of dormouse using the site. The woodland, hedgerows and grassland adjacent the site provide habitat for a range of bird species. During the survey chiffchaff, green woodpecker, chaffinch, blue tit, carrion crow and red kite were noted in the adjacent habitats. No active badger setts were recorded in the survey area. Evidence of badger activity was recorded in woodland to the north of the site and for commuting in grassland areas adjacent the site. However, no badger activity was found within the site and the applicant proposes the site perimeter fencing would likely to deter badgers. Site lighting may deter badgers from using adjacent woodland or grassland although the ecology report concluded any habitat impacted represents a small range of the badger group. A small population of slowworms and grass snake were recorded within the grassland and scrub adjacent the site.

250 The applicant initially set out in Section 5 of the Protected Species Report some limited details of a range of general mitigation measures including: consideration of impacts of proposed works during the bird nesting season; using minimal and directional lighting; and checking for reptiles during vegetation clearance.

251 In their response Natural England have advised they do not consider the application proposals will likely result in any significant impact on statutory designated nature conservation sites or landscapes, but has not commented on protected species. NE have however advised that it is for the local planning authority to determine whether or not the application is consistent with national and local policies on the natural environment. They advise that a local planning authority obtains specialist ecological or other environmental advice when determining the environmental impacts of the development.

252 The County Ecologist in their initial advice on the application advised some ecological issues required addressing and provided recommendations for bats, badgers, reptiles and great crested newts. The Surrey Wildlife Trust also highlighted further work was required on the proposals for these protected species.

253 In their latest response on the application in June 2017 the County Ecologist has advised that their initial concerns on ecology have been addressed by the applicant in the letter 'Responses to Consultees' dated 31 May 2017 which included the results of the species surveys. The County Ecologist also notes the revised range of general mitigation measures for protected species and measures for amphibian translocation set out in the Horse Hill: Recommendations for Mitigation Measures document submitted in May 2017 and considers that with some modification these measures could be secured by condition. The County Ecologist considers that, as the basic site infrastructure is already in place, the main ecological impacts of the development are on species rather than habitats, and the specific ones are bats and great crested newts (GCNs).

254 Members of the public have raised concern of the impacts the development will have on protected species, particularly in terms for protecting great crested newts and the range of bat species, and also badgers identified in the applicant's surveys.

255 *Bats:* The applicant is proposing tree works including the removal of two trees on the southern boundary of well pad and a part of group adjacent the access track. The applicant has carried out surveys for bats and bat activity and the surveys carried out according to the Bat Conservation Trust's *Good Practice Guidelines for Bat Surveys*. The site activity survey revealed the main bat activity was attributable to common pipistrelle and soprano pipistrelle. The transect surveys revealed that only common pipistrelle, soprano pipistrelle and brown long eared bats foraged in the area. The majority of bat

activity was recorded around the access track and foraging activity was mainly recorded around the trees and grassland with some limited foraging around the wellpad attenuation ditch.

256 The County Ecologist concurs with the applicant's assessment that the main bat activity and trees that could be used by bats are situated alongside the access track. The County Ecologist recommends that if trees are to be removed or lopped, the trees are checked for bats and emergent surveys conducted, if necessary. Should bats be found during the surveys the proposed tree works will either need to be timed to avoid harm to bats or a licence obtained from Natural England. The County Ecologist has recommended this detail is secured by condition. The Surrey Wildlife Trust concurs with the County Ecologists views, also recommending surveying the trees for bat roosts are undertaken prior to any tree works. As part of the exploratory wellsite consent RE10/2089 a condition was imposed requiring the felling and lopping of trees to be supervised a licensed bat worker. Given the identified presence of bats on site Officers consider it appropriate similar conditions can be imposed.

257 Consideration also needs to be given to indirect temporary impacts on bats such as site lighting, which could affect bats roosting in trees if site lights were aimed in their direction. This impact would occur if the development was taking place at a time of year when bats emerge from roosts in trees within an area of light spill.

258 The Survey report acknowledges that lighting and activity on site will temporarily deter bats from foraging around the retained grassland and attenuation ditch and adjacent habitats to the north and west may be illuminated by light spill from the development. The applicant proposes that lighting levels from site lighting on the well pad will be the minimum required to meet health and safety requirements. It is not proposed to illuminate the access track where the majority of bat activity has been recorded. The design of the site lighting layout aims to reduce light spill beyond the well pad, including inwards and downward facing lights, and survey concludes that that any lighting impact on bats will at a negligible level.

259 The County Ecologist had initially raised concern of the potential lighting impacts from the development on bats especially in relation to the access track which is situated through the woodland area where the main bat activity will take place. In their June 2017 response the County Ecologist has advised that as the applicant has clarified the access track will not be lit, their concern of the impacts lighting will have on bats has now been lessened.

260 The Surrey Wildlife Trust has also commented on the lighting proposals and advised that an external lighting plan will require approval to ensure that sufficient mechanisms are in place to prevent lighting adversely affecting bat activity areas. The Trust further adds that the site lighting scheme should consider bat friendly lighting and advice is available from the Bat Conservation Trust.

261 *Great Crested Newts:* The County Ecologists notes the applicant's surveys have identified that small numbers of great crested newts (GCNs) have been found in the existing attenuation ditch that surrounds the wellpad and that the applicant is proposing to relocate these outside of the work area under licence.

262 In order to relocate the GCNs the applicant is proposing an off-site solution as potential receptor site for the great crested newts, which the County Ecologist has advised they would prefer. However, if this cannot be achieved the applicant is proposing an alternative onsite option will be used that will involve the creation of a new pond and area of rough grassland that will within the site boundary but outside of the development footprint and working areas. The County Ecologist has advised that if the proposed onsite option is used, when that part of the site is restored the GCNs will then need to be further relocated to an appropriate site. As the applicant has not provided details for relocating of the GCNs

when the time comes to restore the site, the County Ecologist has requested a method statement for relocating the GCNs is secured by condition. The Surrey Wildlife Trust echo's the view that relocation of GCNs is supported by a method statement and a European Protected Species licence obtained from Natural England.

263 In addition to the mitigation measures discussed for bats and great crested newts above the applicant recognises that the timing of any works is important to avoid potential impacts to the range of protected species identified in the surveys. Tree and vegetation clearance works would aim to avoid the bird nesting season (March to August). Should active bird nests by identified by preceding surveys, any type of works deemed disturbing would be delayed until the dependent young have left the area. Prior to vegetation clearance any reptiles found would be moved to a safe location away from the works. The Surrey Wildlife Trust has suggested that with regard to measures for protecting reptiles identified in the ecological surveys the applicant should provide a Reptile Mitigation Strategy before works any works commenced.

264 The Trust has also suggested that to meet the requirements of the NPPF and The NERC Act 2006[5] for protecting species and the biodiversity value affected by the development, a Construction and Environmental Management Plan should be secured to achieve this. However, Officers consider that based on the details submitted and the range of ecological conditions recommended by the County Ecologist, a Construction and Environmental Management Plan would be replication of the details to be secured by these conditions and would therefore not be necessary in this case.

265 Pursuant to Condition 25 of the planning permission RE10/2089 that 5 bird and 5 bat boxes of varying sizes to accommodate a wide range of birds and bats species were erected in the woodland area of the site. Officers recommend that to ensure the bat and bird are maintained for the life of the new development Conditions xxx is imposed on any consent require a maintenance scheme for the boxes to be agreed.

Conclusion on Ecology and Biodiversity

266 Having regard for the conservation of biodiversity and taking account of the views of the Surrey Wildlife Trust, Natural England and the County's Ecologist and Biodiversity Manager, Officers conclude that the proposal would not give rise to a significant adverse impact on the local ecology, and provides for conserving biodiversity, and that subject to the imposition of conditions, the ecological impact aspect of this application complies with the requirements of the Development Plan Policies MC12 and MC14 of the SMPCSDPD 2011 and saved Policy Pc4 of the RBBLP 2005 and does no conflict with national planning policy and guidance set out in the NPPF and nPPG.

Noise and Vibration

267 This proposal is for the appraisal phase of hydrocarbon extraction. The appraisal phase takes place following exploration when the existence for oil and gas has been proved, but the operator needs further information on the identified reserves to establish whether it can be economically exploited. The proposal will involve 24 hour drilling operations and the mineral planning authority will need to be satisfied that the drilling and associated operations can achieve appropriate levels, particularly in terms of night time noise.

[5] The Natural Environment and Rural Communities (NERC) Act (2006)(Section 40) states, "Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity". Section 40(3) also states that, "conserving biodiversity includes, in relation to a living organism, or type of habitat, restoring or enhancing a population or habitat".

268 Unwanted sound may have an adverse effect on the environment and on the quality of life enjoyed by individuals and communities. The NPPF at paragraph 123[6] sets out bullet points that state that planning decisions should aim to:

- avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development;
- mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from new development, including through the use of conditions;
- recognise that development will often create some noise; and
- identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value of this reason

269 Specifically in relation to noise from minerals development proposals paragraph 144 of the NPPF states that when determining planning applications, local planning authorities should ensure that unavoidable noise is controlled, mitigated or removed at source, and establish appropriate noise limits for extraction in proximity to noise sensitive properties.

270 The nPPG sets out guidance on the consideration of noise when determining planning applications for all development. Para 003[7] (of Noise) states in decision taking this should take into account the acoustic environment and in doing so should consider whether or not a significant adverse effect is occurring or likely to occur; whether or not an adverse effect is occurring or likely to occur; and whether or not a good standard of amenity can be achieved. Paragraph 006 recognises that some types and level of noise will cause a greater adverse effect at night than if they occurred during the day or because there is less background noise at night; that noise may be more noticeable if it is non-continuous and may have a tonal nature to it. The paragraph additionally notes that the local topography should also be taken into account.

271 The nPPG also provides specific guidance on determining the impact of noise for a mineral development proposal. Paragraph 019[8] (Noise for Minerals) states that those making mineral development proposals should carry out a noise impact assessment which should identify all sources of noise and, for each source, take account of the noise emission, its characteristics, the proposed operating locations, procedures, schedules and duration of work for the life of the operation and its likely impact on the surrounding neighbourhood. The paragraph sets out bullet points to consider for the control or mitigation of noise emissions which should:

- consider the main characteristics of the production process and its environs, including the location of noise-sensitive properties and sensitive environmental sites;
- assess the existing acoustic environment around the site of the proposed operations, including background noise levels at nearby noise-sensitive properties;
- estimate the likely future noise from the development and its impact on the neighbourhood of the proposed operations;
- identify proposals to minimise, mitigate or remove noise emissions at source;
- monitor the resulting noise to check compliance with any proposed or imposed conditions

272 The nPPG sets out in paragraph 021 (Noise for Minerals) what are considered to be appropriate noise standards for mineral operators for normal operations, being a noise limit that does not exceed the background noise level (LA90, 1h) by more than 10dB during normal working hours. The paragraph recognises that where it will be difficult not to exceed the background level by more than 10dB(A) without imposing unreasonable burdens on the mineral operator, the limit should be set as near that level as practicable. Although, in any event the total noise from the operations during normal working hours

[6] NPPF paragraphs 109 to 125 Conserving and enhancing the natural environment
[7] nPPG paragraphs 001 to 012 Noise
[8] nPPG paragraphs 001 to 222 Minerals

should not exceeding 55 dB(A) LA eq, 1h. For night time noise these limits should be set so as to reduce to a minimum any adverse impact and should not exceed 42dB (A) LAeq, 1h at a noise sensitive property.

273 Paragraph 022 of the nPPG (Noise for Minerals) recognises that there may be particularly noisy short term activities during site preparation and restoration work such as soil stripping, the construction and removal of soil storage mounds and aspects of site road construction and maintenance. In these cases, a temporary daytime noise limit is recommended of 70dB(A) Laeq 1h (free field) for periods of up to 8 weeks in a year at specified noise-sensitive properties to facilitate essential site preparation and restoration work

274 Surrey has produced its own 'Guidelines for Noise Control Minerals and Waste Disposal 1994' (the Guidelines). These Guidelines echo the approach set out in the NPPF and nPPG. The Guidelines specifically address oil and gas related development and recognise that there would be a period of site preparation work involving the use of heavy plant and construction machinery and sets out noise limits for such ground works as follows:

	Max free field LAeq (1/2 hour) dB(A) Ground Flood Level	Max LA01 dB(A) free field
Monday – Friday 0800 – 1700	70	75
Monday – Friday 0700 – 0800 1700 – 1830	60	65
All days 1830 – 0700 Saturday to 0730	45	50
Saturday 0730 – 0900 Saturday 0900 – 1300 Saturday 1300 – 1830	60 65 60	65 70 55
Sundays and Bank Holidays 0730 – 0900 0900 – 1300 1300 – 1830	 50 55 50	 55 60 55

275 The Guidelines also recognise that noise control from temporary sources is of the utmost importance at night time. Drilling is a temporary operation, although it involves constant operation of the drilling rig from which there is a fairly steady noise output. This drilling must be continuous and will normally be the only noise output from the development at night. In order to limit noise at night time the Guidelines stipulate a maximum night time noise limit of 42dB LAeq at a nearest noise sensitive property which echoes the standards set in paragraph 021 (Noise for Minerals) of the nPPG.

276 One of the ten issues identified in Policy MC14 in the SMPCSDPD 2011 (Reducing the Adverse Impacts of Mineral Development) is i) noise, dust, fumes, vibration, illumination, including that related to traffic generated by the development. Para 6.10 of the Plan recognises that factors such as proximity of the proposed development to housing, schools or other sensitive land uses and the topography of the site and surrounding area alongside the location of plant on site, should be taken into account. Policy MC12 (Oil and Gas Development) states that drilling boreholes for appraisal of oil or gas will only be permitted where the MPA is satisfied that the site has been selected to minimise adverse impacts on the environment.

277 RBBLP 2005 Saved Policy Ho 10 (Noise) states that the Borough Council will have regard to the Surrey Noise Guidelines. The policy is particularly aimed at new noise sensitive development and seeks to ensure that new development is sited and designed to minimise the effect of noise on them.

278 Noise from the development will be associated with site construction works at the beginning and end of the development, and from the workover or drilling operations across the operational phases. There will also be associated traffic movements across the different stages of works. These activities would take place over a period of up to 14 months overall, although they would not necessarily follow each other continuously and there may be periods of inactivity on site, particularly when the results of EWTs and drilling are being assessed.

279 Drilling would be a constant activity meaning 24 hour operations at the site. Noise is a leading concern raised by objectors to the application. Particularly, local residents have objected to the proposals for 24 hour operations especially at night time. Local objectors report that during the previous exploratory operations metallic and screeching type sounds were heard, possibly from equipment, when a drilling rig was in use on the site in 2014, and during EWTs in February to March 2016. A further source of concern is that the applicant overran the duration of EWTs in the same 2016 period. Given the duration over which 24 hour drilling will take place, it is therefore essential that night time noise is acceptable.

280 Local residents have raised concern of the impacts sudden noises from the development may have on both neighbouring properties, particularly on horses on the adjacent equestrian land. In addition some local residents are concerned by the impacts vibration may cause from drilling operations, especially if it is directional, in particular the occupier of a nearby property Wrayswood (approximately 500m from the well pad). Therefore sudden noise is also to be considered, particularly for the adjacent Lomond Equestrian Centre. The Norwood Hill Residents have expressed concern over noise spikes and suggest that independent noise monitoring should take place.

281 The applicant has provided a noise assessment report entitled ‘Assessment of Environmental Noise and Vibration’ prepared by ACIA Engineering Acoustics, dated 16 October 2016, which includes a background noise survey to establish baseline conditions, the predicated noise levels from the site operations, and mitigation measures. The applicant then submitted additional information on noise in a ‘Responses to Consultees’ letter dated 31 May 2017 clarifying information set out in the Noise Report, and clarifying information for noise mitigation in an email dated 3 August 2016. The applicant’s noise proposals have been assessed by the County Noise Consultant (CNC).

282 The applicant is seeking planning permission for further extended well tests and appraisal drilling operations, to further appraise oil accumulations identified during the exploration stage of HH-1 for a temporary period of 3 years. The development is divided into four phases and the works will involve: *(1)* site preparation, workover and extended testing of the HH-1 well (approximately 210 days); *(2)* drilling of a sidetrack well from the HH-1 and extended testing (approximately 100 days); *(3)* drilling of a second HH-2 well and extended testing (approximately110 days; and *(4)* site clearance and restoration (approximately up to 22 months).

283 The applicant is proposing noise level limits in accordance with the previous planning permission, reference RE10/2089. The proposed noise level limits for this development will be as follows:

“For temporary operations such as site preparation the limit is 65 dB LAeq,30min between 08:00h and 18:30h, Monday to Friday, and between 09:00h and 13:00h Saturday, with no audible noise being permitted at any other time. The limit applies 3.5 m from the façade of any affected property.”

“The limit for operations other than temporary, including drilling and flaring, is 48 dB LAeq,30min within the same specified time periods. At all other times the limit is 42 dB LAeq,30min, which is applicable to drilling and associated activities.”

284 The County Noise Consultant has considered the historical noise level limits proposed for this application and considers these to be reasonable.

285 As part of the development proposal, the applicant originally proposed to install a 6m high, 81m long, 1.5m wide acoustic (and light) barrier on the southern boundary of the well pad to mitigate likely immediate impact of noise on the equestrian centre and neighbouring properties to the south. The applicant had not provided any technical details for the barrier and the applicant's noise predications do not include any screening mitigation such as the barrier. In May 2017 the applicant withdrew the proposed barrier and instead proposes to acoustically clad the fencing to the perimeter of the well pad. However, the applicant has not submitted details of the fence cladding as this detail has yet to be determined, and the applications noise assessment has not been revised to include for any screening mitigation.

286 Horse Hill wellsite is situated within a rural area approximately 3.1 km directly west of Horley town centre, 2.3 km northeast of the village of Charlwood and 1.6 km northwest of the village of Hookwood. Gatwick Airport is located approximately 2.2 km southwest of the site and access is from Horse Hill, which runs north from the A217 junction at Hookwood. The noise and vibration assessment includes a survey for background noise undertaken during August 2016. The background noise is identified attributable to road traffic movements and the general level of background noise from Gatwick Airport. The assessment states that the measured noise levels during the night-time fell no lower than 35dB LA90,15min (or 41dB LAeq,15min), which was higher than expected given the lack of flights into and out of Gatwick during the small hours of the morning.

287 The applicant has calculated noise levels arising from the development at eight representative neighbouring residential properties being: High Trees Court (321m), Wrays Farm House (368m), Five Acres (411m), The Bungalow (426m), Pheonix Lodge (549m), Brittleware Farm (781m), Rushmeads Cottages (457m), and Rowgardenswood (623m).

288 One resident has commented that the applicants stated distances from the site to residential homes is inaccurate and suggests the nearest homes are further from the site than they actually are. Officers note that for the exploratory permission RE10/2089 the figures distant between the site and properties were based on the proximity of the perimeter of the wellsite. For this application the applicant states distances from the site to the nearby properties as being from the well pad.

<u>Site preparation, clearance restoration phases</u>

289 For site preparation and restoration stages the applicant is proposing a maximum noise level limit of 65 dB LAeq,30min during daytime operations from the previous planning permission RE10/2089 . As the applicant proposes a daytime noise level limit in accordance with permission reference RE10/2089 the limit of 65dB applies to the hours between 0800 and 1830 Monday to Friday, and between 0900 and 1300 on a Saturday during these phases.

290 The site preparation works will take approximately 30 days during Phase 1. Then for the final Phase 4 of the development, 5 days would be required for site clearance and enclosure of the wells and up to 41 days over a period of 22 months to restore the site. The noise assessment identifies the potential noise-making equipment to be used for minor ground works will consist typically of tracked excavators, bulldozers and road roller. There will also be deliveries of materials and equipment by HGVs.

291 The applicants noise calculations predict that the worst-case construction noise levels at the nearest noise sensitive property are in the range of 46 to 53dB which are of potentially minor adverse significance, in that these operations may sometimes be audible during the daytime at the nearest NSR. The County Noise Consultant has assessed the noise levels for site construction works and commented that the applicant has predicted noise levels

for site preparation works according to BS5228-1:2009 'Code of practice for noise and vibration control on construction and open sites – Part 1:Nose'. However, in their May 2017 response letter the applicant has subsequently acknowledged that BS 5228-1:2009 has been superseded by BS 5228-1:2009+A1:2014 'Code of practice for noise and vibration control on construction and open sites – Part 1: Noise. The applicant has reviewed both noise guidelines and concludes that there on no material changes to the content of the British Standard (BS), rather the changes are minor editorial updates and removal of reference to obsolete standards. The County Noise Consultant comments that the noise report concludes that for temporary operations (e.g. site preparation, enabling and restoration etc) the predicted noise levels (of 46 to 53dB) at the nearest noise sensitive receptor (NSRs) do not exceed the 65dB limit proposed for daytime. The CNC has therefore recommended a condition is imposed on any new consent controlling the level of noise for temporary operations such as site preparation enabling and construction to a maximum level of 65dB and to the hours 0800 to 1830 Monday to Friday and 0900 to 1300 on a Saturday.

292 Officers recognise that for temporary operations such as site preparation works, and site clearance and restoration, the 65dB maximum limit previously permitted under planning reference RE10/2089 applies expressly to the hours 0800 to 1830 Monday to Friday and 0900 to 1300 on Saturdays. However, the applicant has proposed for the temporary operations such site preparation these will take place during an extended working day between 0700 to 1900 Monday to Friday, and 0700 and 1300 on Saturdays. However the applicant has not considered the proposed change to the hours for temporary operations in their noise assessment and proposes the same noise level limits as those permitted for RE10/2089. Therefore the County Planning Authority does not consider the proposed revision to hours to be acceptable. Officers therefore recommend that, taking into account the advice of the County Noise Consultant, the hours for temporary operations should be restricted by condition to the hours allowed by planning reference RE10/2089 for any new consent.

<u>Workover, drilling and sidetrack drilling extended testing including flaring</u>

293 The applicant proposes that the maximum noise limit for operations other than temporary, including drilling and flaring, is 48 dB LAeq,30min between 08:00 and 18:30 Monday to Friday, and between 0900 and 1300 on a Saturday. At all other times the limit is 42 dB LAeq, 30min, which is applicable to drilling and associated activities at night time. The County Noise Consultant considers the noise level limits proposed for the operational phase (e.g. workover, drilling and sidetrack drilling extended testing including flaring) to be reasonable levels and recommends these maximum noise levels are secured by condition on any new consent.

294 The applicant proposes that during mobilisation of a workover rig or drilling rig these works will occur during daytime operations and not at night. The applicant states noise levels from mobilisation of the rigs will not exceed the levels during site construction. Thereafter either type of rig will involve constant operation for 24 hours a day seven days per week regardless of whether a workover well, or drilling of a sidetrack or appraisal well is in progress.

295 The applicants noise and vibration report advises that while they have yet to confirm the rig type as this will depend on availability at the time of commencement, they intend to use a rotary drilling rig, of which the British Drilling and Freezing Rig 51 is a typical example. However, from the available rigs a type BDF 28 rig is the noisiest under most conditions and therefore the noise predications for drilling operations have been based on a BDF 28 rig to produce a robust worst-case scenario. The maximum predicted noise produced by the BDF 28 rig would give noise levels of 47dB LAeq at the nearest properties of High Trees Court and Wrays Farm House (in the absence of background noise and ignoring any tree shielding, noise barriers or rig floor shielding). This would mean that noise from the drilling operations would be within the 48dB LAeq daytime noise

limit, but would exceed the proposed night-time noise limit of 42dB LAeq at the closest noise sensitive receptor.

296 The County Noise Consultant comments that for operations (e.g. workover, drilling, sidetrack drilling EWT etc) the noise assessment report concludes the predicted noise levels at the nearest NSRs are within the noise limits proposed for the daytime period but exceed the noise limits for the night-time period. The applicant has confirmed that the noise predictions do not include screening, but that any screening afforded by the trees and undergrowth between the site and the NSRs, or by the presence of equipment on site such as workshops, office accommodation or temporary storage containers (the exact locations of which will not be known until the drilling rig has been mobilised) could provide at least 6dB attenuation. The applicant considers that applying this 6dB attenuation the resulting worst-case noise emission levels from drilling (in the absence of background sound) and including the effects of screening and additional attenuation would be as shown in the table below.

Receptor	LAeq,T including screening
High Trees Court	41
Wrays Farm House	41
Five Acres	38
The Bungalow	37
Pheonix Lodge	30
Brittleware Farm	25
Rushmead Cottages	36
Rowgardenswood	29

297 The CNC has advised that trees and undergrowth should not be relied upon to provide any level of mitigation, which is acknowledged by the applicant. However, the CNC considers that, depending on the site configuration, the soil storage bund on the northern boundary and the workshops/ office accommodation/ temporary storage container could potentially provide the level of attenuation required to meet night time noise limits but that this will need to be demonstrated. The County Noise Consultant also notes that the applicant is proposing to clad the security fencing to the well pad which they consider could provide 5dB, although again, the applicant will need to provide details of the material, position, height, length and acoustic performance so that the County Planning Authority can determine whether the cladding will be an effective form of mitigation. The County Noise Consultant is therefore recommending a condition is imposed that requires a scheme of mitigation to be approved prior to the implementation of the development to ensure the proposed night time noise level of 42 dB LAeq will be met.

298 As part of amplifying information on noise provided in May 2017 the applicant advises that noise levels at the adjacent Lomond Equestrian Centre from drilling would be within the proposed daytime limits but will exceed night-time limits. The County Noise Consultant considers it is unlikely that there will be any recreational use of the equestrian centre during the night- time period but that the predictions have not taken into account any screening. The applicant has considered the effect of noise on equine behaviour. The general opinion is that horses would be relatively insensitive to a steady noise, such as that from the drilling rig, but can react badly to sudden noises. However, once a noise is understood by the animal not to be a threat, it is ignored thereafter.

299 The applicant also provided further assessment for noise in respect of the adjacent public rights of way. The predicted noise levels on the nearest part of the right of way would exceed both daytime and night time levels, although there are no established standards or target noise limits for public rights of way. The County Noise Consultant comments that footpaths are transitory where people are briefly passing through an area, although again possible screening mitigation has not been assessed and it should be noted that it is unlikely that there will be recreational use of the public right of way during the night-time period.

300 During extended well testing the applicant advises that any gas produced will be flared within a 10m high flare stack and will be subject to approval by the Environment Agency under the necessary environmental permit. The applicant expects the volume of gas to be flared to be insufficient to give rise to audible noise beyond the confines of the site, although the proposed noise level limits for operations include for flaring at a noise level limit of 48dB. The County Noise Consultant recommends a condition be imposed restricting the noise levels from flaring to 48dB LAeq and that flaring may only be carried out between the hours 0800 and 1830 Monday to Friday and between 0900 and 1300 on a Saturday.

301 The applicant has also considered the issue of vibration. During the site preparation phase there would be no sources of significant ground vibration other than a road roller that may be of vibratory type. Such plant vibrates only the roller and ground contact surface in its immediate vicinity that would mean there is a rapid dissipation of vibrational energy close to the machine. During drilling operations, the shakers located to the drilling rig and forming parts of the solids control equipment, are a significant source of vibrational energy as their operation depends on passing returned drilling fluids through a set of reciprocating screens. This vibration is detectable on the solids control structure itself, although any ground vibration is dissipated with a few metres and would be undetectable beyond the site. Vibration arising from a drill bit, which will be hundreds of metres below ground level can occasionally be detected on the drill floor because of direct transmission up the drill string (steel pipe). However none of this vibration passes through the ground and ground vibration during rig operations would not be detectable inside neighbouring residential properties. Any levels of vibration inside neighbouring properties would be several orders of magnitude lower than the architectural damage criteria given in BS.7385-2:1993 and at least two orders below the levels perceptible to a human observer.

302 In terms of traffic movements ‘The Design Manual for Roads and Bridges' volume 11 gives advice on the environmental assessment of noise from changes in road traffic movements. The maximum total vehicle movements generated by the proposal would be a maximum of 20 HGVs (a total of 40 HGV movements) per day. The significance indicator given in 'The Design Manual for Roads and Bridges' is an increase to existing traffic of 25% or more which equates to a change in noise level of + 1dB(A). This level is the smallest level of change that can be regarded as being discernible. From the applicant’s highway surveys, the baseline traffic flows (one-way movements) on Horse Hill are 3820 vehicles and the percentage change including the development would be 0.73%. This level of change would result in an increase in noise levels of less than 1dB(A) and therefore well below the level that is considered distinguishable. The County Noise Consultant has recommended that a condition is imposed that limits HGV movements to no more than 20 HGVs per day (total of 40 movements) and restricted to the hours of 0800 and 1830 Monday to Friday, 0900 and 1300 on a Saturday and no movements at any other time.

303 The County Noise Consultant has recommended two further conditions. The first requiring the approval of a noise monitoring plan for the life of the development, and a second for all plant and machinery to be silenced in accordance with the manufacturers recommendations. In addition to these recommendations, Officers consider it appropriate that a further condition for noise is carried forward from the permission reference RE10/2089 in respect of a process known as tripping[9]. The manual handling of the drill pipes has the potential to be more noticeable at night from noise perspective, due to the power needed to pull the drillpipe out combined with impact noise when handling the lengths of drillpipe. As a result a condition was imposed limiting the hours to the daytime period for when the tripping process may take place. As the applicant has not provided

[9] The process of tripping involves pulling entire drillpipe out of the well and running it back into the well for the purposes of changing the drill bit

information on noise levels for tripping, a similar condition limiting the hours for tripping should be imposed.

304 The Environment Agency has commented that the issue of noise and vibration will be considered in detail at the environmental permitting stage. The Local Reigate and Banstead Borough Council EHO has not commented on the applications noise proposals, although has commented on air quality.

Conclusions on Noise

305 The applicant is proposing noise limits for this temporary development in accordance with the previous planning permission RE10/2089 which the County Noise Consultant considers to be reasonable. The applicants predicted noise levels for all operations at the nearest noise sensitive receptor would be within the limits proposed for the daytime period but would on a worst-case scenario basis exceed the limits proposed for the night-time period by 6dB LAeq. However the applicant has identified a range of mitigation including existing trees and vegetation between the site and NSRs, acoustically cladding of the security fencing, and the presence of site equipment that could afford at least 6dB attenuation, but has not included this into the development noise prediction calculations. The County Noise Consultant considers that, depending on the final site configuration, the existing bund on the northern boundary and positioning of the temporary buildings could provide noise attenuation of this order.

306 In view of the advice from the County Noise Consultant, Officers are of the view that noise can be dealt with by way of conditions limiting daytime noise and requiring the submission of night time noise mitigation prior to the implementation of the development. On this basis it is considered acceptable noise levels can be achieved and maintained by planning condition, and considered that the application meets the requirements of the Development Plan Policies MC12 and MC14 of the SMPCSDPD 2011, and RBBLP 2005 Saved Policy Ho 10, and does not conflict with national planning policy and guidance set out in the NPPF and nPPG regarding noise.

Lighting

307 The HH-1 wellsite is located within a predominantly rural area where the impact of artificial lighting on the night sky can be an issue. There are limited direct views into the site due to surrounding mature woodland and hedgerow cover. In addition a soil bund is constructed to the north of the compound.

308 The combined operational phases of the development (Phases 1-3) are anticipated to take up to 13 months, based on worst case scenario. During the operational phases the site would be operational 24 hours a day and therefore to meet health and safety regulations lighting will be necessary during the hours of darkness. To avoid obtrusive light it is important that the lighting scheme is sensitive and well designed to avoid the problems of sky glow, glare and light trespass.

309 Illumination is one of the issues identified under policy point i) in Policy MC14 in the SMPCSDPD 2011. The policy states that potential impacts related to 'i) noise, dust, fumes, vibration, illumination, including that related to traffic generated by the development', should be considered. nPPG paragraph 002[10] sets out guidance for considering adverse impacts of light pollution on nearby buildings, wildlife and the environment.

310 Guidance notes by the Institution of Lighting Professionals for the reduction of obtrusive light (2011) set out guidance on controlling light to avoid light pollution. The guidance states obtrusive light is a form of pollution and may also be a nuisance. The guidance

[10] nPPG – paragraphs 001 to 007 guidance for Light pollution

goes on to state that care should be taken when selecting luminaires to ensure appropriate products are chosen to reduce the upward spread of light so that it is near to and above the horizontal to reduce spillage and glare to a minimum. The guidance advises that the angle of light should not be greater than 70 degree angle in order to avoid any potential glare. In accordance with this guidance note, the relevant zone for this site would be E2: Rural low district brightness. For proposals within the E2 zone, the guidance sets out limitations of lux levels as follows:

Environmental Zone	Sky Glow ULR [Max %] (upward lighting)	Light Intrusion (into windows) Ev [lux] (maximum & should take into account existing light intrusion)	
		Pre-curfew	Post-curfew
E2	2.5	5	1

311 There are nearby residential properties to the wellsite to the north, east and south. The nearest being approximately 320m distant north and situated on higher ground. Local residents have expressed their concern in respect of lighting, based on experiences from the drilling of HH-1. Given the rural location of the site where existing light levels are low, Officers recognise that the Illumination of the site at night will give rise to some impact on local amenity. Salfords and Sidlow Parish Council suggest that lighting should be sufficiently screened and/or positioned to avoid causing any nuisance to nearby properties, business activities and wildlife.

312 The specific lighting requirements for the site will be determined by the type of rig that is used on site. The applicant advises that, although the type of rig will not be confirmed until closer the time of drilling, the site lighting proposals for the site is based on the greatest footprint and profile of the rigs available. Originally, the applicant provided a schematic of proposed lighting installation set out on Illustrative Site Plan Drilling Mode Lighting Plan application drawing number P13 Rev A dated October 2016. The lighting proposals have been accompanied by a lighting assessment set out in the 'Lighting Impact Assessment' produced by Messrs Haskoning DHV UK Ltd dated 12 October 2016, and the impact on ecology was considered in the 'Protected Species Survey Report' produced by Ashgrove Ecology Limited dated October 2016.

313 The applications site lighting layout was originally based upon using a type BDF51 rig. In May 2017 the applicant provided revised lighting detail based upon a type BDF28 rig as a worst case lighting scenario for the site, and also included details of proposed luminaires. However, no specific lighting calculations or revised lighting assessment have been submitted or revisions to the recommendations set out in the original Royal Haskoning lighting report.

314 Whilst there is a requirement for night time lighting of the wellsite compound for health and safety reasons, the applicant has stated that the access track and site access will not be lit and no HGV movements utilising the access are proposed during night time periods.

315 The rig mast will be illuminated for safety reasons by strip lights that will face inward and downward. Given the height of either the 37m or 32m high rig masts and the site's proximity to Gatwick Airport, it would also be necessary to have a red aircraft warning light on top of the mast. The applicant has proposed a red strobe aviation warning light at a height of 34.63m on the mast The Gatwick Airport Safeguarding team have requested that the aviation warning lamp be replaced by a steady red light at a strength of 200 candelas (luminous intensity). To mitigate unwanted spillage from the red warning light the applicant proposes a baffle on the aviation warning light to ensure lighting goes directly upwards.

316 Strip lights would also be required along the length of the rig and the applicant proposes these will be 36w strip lights which will face inward and downward. Strip lighting and sodium lights are also proposed to the ground floor rig substructure and its ancillary plant.

The substructure to the rig has a typical height of approximately 7m, with an acoustic/lighting barrier fitted to the rig at rig floor level. Lighting would be installed on the mud tanks positioned adjacent to the rig using a combination of 36w strip lights, 150w Safelight LED lamps or 400w sodium lights.

317 The well pad lighting shows floodlights on up to 5x 3m high columns positioned around the well pad compound, and 2x flood lights to the Mud log cabin positioned on the western boundary of the well pad. To control flood lighting the applicant proposes limiting the tilt angle of the light fittings to avoid upward spillage of light and reducing mounting heights to below the height of the perimeter fence line. Temporary office accommodation and stores buildings will be positioned along the edge of the well pad on the eastern, southern and southern western side. Inward facing bulkhead lamps are proposed above doorways for illumination of the portable cabins and containers and the applicant proposes these will be fitted with optics/eyelids to ensure light is directed towards the ground will face inwards.

318 To further mitigate any upward spillage of light the applicant proposes to switch off light at the site where possible at night, while ensuring sufficient illumination for a safe working environment. In addition, the applicant had originally proposed to install a 6m high, 81m long, and 1.5m wide light and acoustic barrier along the southern edge of the well pad. However, this proposal has subsequently been amended and the applicant now proposes to clad the 2.4m high security fencing erected around the perimeter of the well pad, however no design detail or assessment the cladding has been provided.

319 The County Lighting Consultant (CLC) has assessed the lighting submission and recommends that lighting on the plant and equipment will take the form of inward facing luminaires. Due to the height of the rig the inward facing lighting would be sufficiently high enough to be seen, although the CLC does not believe this is likely to result in nuisance glare but this will need to be demonstrated by the applicant. No specific lighting calculations or an isolux lighting plan to confirm spill lighting around the site has been provided by the applicant. Given lighting was a concern during the previous exploration stages and to ensure minimal illumination to any window of nearby properties the CLC has recommended a detailed lighting scheme is secured by condition to address the above recommendations and guidance.

320 Notwithstanding the above, Officers recognise the lighting proposed is temporary and necessary to illuminate the site at night to meet health and safety regulations. The site is not in any designated landscape and the wellsite offers only partial views of the surrounding area, and is surrounded by mature dense woodland and hedgerow cover that would provide substantial screening of the site. Given the temporary period and the necessity for lighting, taking into consideration the recommendations of the CLC, Officers consider any impact of lighting would be limited and can adequately controlled by appropriate planning conditions imposed on any new consent.

321 The applicant has advised suitable lighting is selected to ensure minimal disturbance to any wildlife such as bats, per recommendations from the Preliminary Ecological Assessment. The potential impact of site lighting on the bat populations in the area has been considered under the earlier ecological section of this report.

Conclusion on Lighting

322 Any assessment has to be proportional to the nature and scale of the development proposed. It is acknowledged that additional lighting in this rural location will give rise to some impact on local amenity however Officers recognise that lighting is essential for health and safety reasons and would be for a temporary period. The County Lighting Consultant has raised no objection to the lighting proposal subject to conditions, as such Officers consider that the lighting impact can be adequately controlled and would ensure lighting would not have an unacceptable impact on amenity. Officers therefore consider

that the proposal does not conflict with the Development Plan Policy or national guidance with regard to lighting set out in SMPCSDPD 2011 Policy MC14.

Air Quality

323 The primary driver for air quality management is the protection of human health, but it can also be an issue to the natural environment for wildlife habitats and vegetation. Dust and air quality are material considerations and should be taken into account when considering planning applications.

324 The NPPF at paragraph 109[11] states that the planning system should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to or being put at unacceptable risk from air pollution. In doing so, paragraph 122 advises that local planning authorities should focus on whether the development itself is an acceptable use of land, and the impact of the use, rather than the control of processes or emissions themselves where these are subject to approval under pollution control regimes. The NPPF further states at paragraph 124 decisions should take into account the presence of Air Quality Management Areas (AQMAs) and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in an AQMA is consistent with the local air quality action plan. Reigate and Banstead Borough Council have declared a number of AQMAs in borough for annual mean nitrogen dioxide. The application site does not lie within an AQMA and the nearest is located over 2km to the southeast of the site in Horley.

325 The nPPG provides guidance on how planning can take account of the impacts of new development on air quality. The nPPG (Air Quality) at paragraph 005[12] states “whether or not air quality is relevant to a planning decision will depend on the proposed development and its location. Concerns could arise if the development is likely to generate air quality impact in an area where air quality is known to be poor. They could also arise where the development is likely to adversely impact upon the implementation of air quality strategies and action plans and/or, in particular, lead to a breach of EU legislation (including that applicable to wildlife).”

326 When determining a development proposal a mineral planning authority shall have regard for appropriate consideration of issues such as air quality, on both human health and on ecology. Particular attention should be paid to compliance with national air quality objectives and of EU limit values. The UKs objectives for air quality are set out in the UKs National Air Quality Strategy (Defra, 2007), which provides air quality standards and objectives for key air pollutants, which are designed to protect human health and the environment. The Air Quality Strategy establishes limit values for concentrations in outdoor air of major pollutants harmful to public health and the environment including particulate matter (PM10 and PM2.5) and nitrogen dioxide (NO2). The UKs established limit values are numerically identical to the EU Air Quality Directive. For the protection of habitats and species the EUs Habitats Directive is transposed into English in the ‘The Conservation of Habitats Species Regulations 2010’ and ‘Wildlife and Countryside Act 1981’ and ‘Rights of Way Act 2000.’

327 Policy MC14 of the SMPCSDPD seeks to ensure that no significant adverse impacts arise from development in relation to the amenities of local residents and the environment. The policy requires consideration of such issues as dust, fumes, illumination, including that related to traffic as issue i). The Reigate and Banstead Local Plan Core Strategy (2014) does not contain specific development management policy for air quality decisions but does set out strategic objectives in Policy CS10 that states development will be designed to minimise air pollution.

[11] NPPF paragraphs 109 to 125 Conserving and enhancing the natural environment
[12] nPPG paragraphs 001 to 008 Air quality

328 Guidance on air quality for planning is published in the EPUK/IAQM “Land Use Planning and Development Control: Planning for Air Quality” 2017 document. The guidance recognises that all new development will have emissions associated with them and therefore will have the potential to have associated adverse impacts. It is these impacts that require quantification and evaluation in the form of an Air Quality Assessment alongside the ability to assess the significance of those impacts. Para 6.2 of the document advises that where a development requires an Air Quality Assessment this should be undertaken using an approach that is robust and appropriate to the scale of the likely impacts.

329 The closest residential properties to the site access are those associated with Wray Farm House which is approximately 50 m from the access but approximately 370 m from the well pad to the east. To the south east is the property of Five Acres approximately 410m from the well pad, and to the north are the properties of High Trees Court approximately 320m from the well pad. The wellsite is some 1.8 km distant from the Eldophs Copse Local Nature Reserve and over 3KM from Glovers Wood Site of Special Scientific Interest.

330 The applicant submitted an air quality assessment dated September 2016 which has identified the key sources of emissions as:

- construction impacts from dust
- vehicle Emissions
- impacts of emissions from flaring, generators and water heaters

331 The County’s Air Quality Consultant commented on the original air quality assessment and in response to issues raised the applicant submitted additional detail on air quality set out an air quality assessment review dated March 2017.

<u>Construction Impacts – Dust</u>

332 The Institute of Air Quality Management (IAQM): “Guidance on the assessment of dust from demolition and construction” 2014 identifies the risk of dust emissions from a demolition/ construction site causing loss of amenity and/ or health or ecological impacts is related to the activities being undertaken, the duration of the activity, the size of the site, the meteorological conditions, proximity of receptors to the activities, mitigation measures in place; and the sensitivity of the receptor to dust. The guidance states that adverse impacts are more likely to occur downwind of the prevailing wind direction and/ or close to the site but that local conditions such a topography or natural barriers e.g. woodland could reduce airborne concentrations

333 The applicant advises the potential dust generating activities from construction during Phase 1 include realignment and maintenance work to the existing access track and construction of a new concrete well cellar on the well pad. This would be followed by workover operations of the well that will take place through the existing conductor pipe and casing. Remaining works during Phase 1 involve the installation and configuration of portable cabins, containers plant and equipment, although not anticipated to lead to significant dust generation.

334 Construction works for Phase 2 will include drilling of a sidetrack well from the existing HH-1 well and workover operations similar to Phase 1. Depending on results from well testing during the earlier phases, Phase 3 will involve drilling a new appraisal well from the existing well pad, followed by workover operations. The final Phase 4 will involve plugging and abandoning the wells in accordance with industry best practice then clearance of the site of plant and equipment, and restoration works to return to the site to agriculture and woodland uses.

335 The applicant's air quality assessment concludes that, given the nature of the proposed construction activities, with suitable dust control measures in place there should be no significant impacts from dust during construction or deconstruction works. The County Air Quality Consultant (CAQC) has commented that whilst the applicant has identified the potential sources of dust emission no specific mitigation or controls are proposed commensurate with the risk of the potential dust impact. Therefore to ensure the development is acceptable in terms of dust and assessed in-line with 2014 IAQM construction guidance and that proportionate mitigation is provided according to national Planning Practice Guidance, the CAQC recommends that a condition be attached to any new consent requiring a Dust Management Plan for the proposed site construction activities.

Vehicle Emissions

336 The applicant is proposing that there will be no more than a maximum of 20 HGVs (40 movements per day across any of the four phases of the development. The majority of the vehicle movements will take place during the first three phases which it is anticipated will last up- to approximately 14 months as a worst-case scenario.

337 The EPUK/IAQM (2017) guidance stipulates criteria for requiring an air quality assessment for vehicle emissions where, within or adjacent to an AQMA, a proposal leads to an increase of more than 25 HGV or 100 LDV annual average daily movements, and for elsewhere it is an increase of 100 HGV or 500 LDV movements.

338 The County Air Quality Consultant (CAQC) has commented the applicant has compared the proposed vehicle movements against the threshold criteria set out on the EPUK/IAQM guidance for requiring an air quality assessment. The applicant has not undertaken an assessment of vehicle-related emissions as the EPUK/IAQM threshold criteria are not exceeded. The CQAC agrees that there is no need necessity to assess vehicle-related emissions and agrees the impacts are likely to be negligible.

Impacts of emissions from flaring, generators and water heaters

339 When determining a development proposal a mineral planning authority shall have regard for appropriate consideration of issues such as air quality, on both human health and on ecology. Particular attention should be paid to compliance with national air quality objectives and of EU limit values. The NPPF and Planning Practice Guidance requires a mineral planning authority to focus on whether development is an acceptable use of land, and its impacts. Paragraph 122 of the NPPF states where the control of processes and emissions themselves are issues covered by other regulatory regimes, the mineral planning authority should assume that these regimes will operate effectively.

340 The development will include a temporary enclosed flare, diesel-fired generator and diesel-fired water generator. The power demand for the site will be met by the diesel generator, and the diesel water heater will provide heat to be used in the well testing process.

341 Flaring is carried out usually at the exploratory and appraisal stage where gas is present, and in this case all natural gas associated with extracted oil will be flared in an enclosed flare as a continuous process. The applicant advises that the worst-case scenario of amount of flared gas will be no more 800,000 scf/day at its peak during testing across the phases. The applicant advises that while the specific details of the flare would not be known until near the time of drilling, the flare will be fully enclosed and have a stack height of 10m and the predicted emissions are derived in-line with those in the National Atmospheric Emissions Inventory for venting and flaring.

342 The application has been accompanied by an air quality assessment, and then in May 2017 further information was provided in an air quality assessment review. The County's

Air Quality Consultant and the Environment Agency have been consulted on the planning application.

343 The applicant's air quality assessment states that during well tests in Phase1, Phase 2 and Phase 3, emissions of nitrogen dioxide, PM10 and PM2.5 will arise from the diesel-fired generator, diesel-fired water heater and flaring activities on site. The applicant has made predictions for nitrogen dioxide, PM10 and PM2.5 emission concentrations assuming the flare, generator and water heater will be fully operational at a fixed rate during well testing. The applicant further advises that the predictions assume these combustion sources will run continuously 24 hours a day 7days a week which as a worst-case scenario would for up-to 330 days. The applicant has assessed pollutant concentrations over a 10km by 10kn area which covers nearby sensitive designated areas, and concentrations of pollutants assessed at the facades of 34 residential properties within 2km of the site from the site.

344 Objectors to the application have raised concern the emissions, particularly from the use of the flare will be harmful to human health, which are carcinogenic and cause respiratory issues. Concerns are also raised from odorous gas smells and from diesel generators. Salford and Sidlow Parish Council comment that the site is adjacent to residential, agricultural and equestrian properties and air quality is important on these activities. The Parish Council suggest that suitable monitoring is in place to identify if air quality limits are exceeded. The Norwood Hill Residents are concerned the nitrogen dioxide, with particulates will be unhealthy for the local people. They also suggest that independent air quality monitoring should be taken at the wellhead, the site boundary and nearby residential properties.

345 The County's Air Quality Consultant has assessed the applicant's air quality assessment. The CAQC comments that for each of the combustion sources (flare, generator and heater), the applicant has submitted details of stack or flue characteristics. These comprise the height of the stack; the diameter at the stack and the grid coordinates of the stack. The applicant has also submitted details of the emissions characteristics. The data provided are the necessary parameters to derive the temperature of the emissions, the velocity of the emissions and the mass of each pollutant per second. The CAQC in their original response in November 2016 identified a number of areas where there were inconsistencies in the data. These were addressed by the applicant in the air quality assessment review response dated March 2017. In June 2017 the CAQC confirmed that there were no longer any inconsistencies in the stack and emissions characteristics.

346 The CAQC comments that the applicant has modelled the stack and emission characteristics of the emission sources. For *human health* the predicated pollutant concentrations from the development have been assessed according to the levels and objectives of the National Air Quality Strategy and the CAQC agrees with the applicant's results and conclusion that the impacts will be negligible. For *sensitive ecological site* the applicant air quality assessment concludes the impacts will be insignificant and the CAQC agrees with the results and conclusion. The CAQC has confirmed they are satisfied the applicant has satisfactorily demonstrated that the residual effects from harmful emissions arising from the proposed flare, generators and water heaters are not likely to be significant and therefore raises no objection. The Environment Agency confirms that they have no objections to the proposed development and also comments that issues of air quality will be considered at the environmental permitting stage.

347 Notwithstanding the above Reigate and Banstead Borough Environmental Health Officer (the EHO) has recommended two conditions on air quality for the application. The first of the conditions would be for a scheme for the siting of air quality diffusion tubes to monitor air quality at nearby receptor properties. While Officers acknowledges the recommendation, Officers also recognise that in imposing conditions a conditions must meet the 6 tests of government policy set out the NPPF, in that they are necessary, relevant to planning and to the development to be permitted, enforceable, precise, and

reasonable in all other respects. The NPPF also states that the mineral planning authority should not concern itself with the control of processes or emissions themselves where these are subject to approval under pollution control regimes and should assume that these will operate effectively. The EHO has acknowledged the applicants modelling shows that the proposed development is unlikely to lead to any significant deterioration in air quality in the vicinity of the development. The Environment Agency would monitor pollution control and substances emitted from the flare within the remit of the Environmental Permit. In addition the control of flaring and any potential components within the gas is controlled by the Oil and Gas Authority under a permit to drill, and safety regulations are controlled by the HSE. Therefore Officers consider the first of the recommended conditions of the EHO would be unreasonable. However, Officers consider an informative can be added advising the site operator to collaborate with the local EHO for compliance with local air quality monitoring in addition to the statutory requirements of the EA.

348 In terms of the second of the recommendations, the EHO has suggested that condition is imposed to ensure that the diesel generator and diesel water heater used on site are low NOx/low emission equipment in line with specifications proposed in the application documents. Officers recognise that odours from diesel fired units used on site during previous operations have be raised as a concern by local objectors, particularly to the users of the public rights of way and equestrian land to the south of the site. The applicant has proposed a range of mitigation in the air quality assessment that includes for using equipment with minimum emission specifications. The Environment Agency has commented that a condition requiring the diesel plant to be low emissions in accordance with the proposed specifications would be beneficial. Officers, therefore consider it reasonable a condition can be imposed to ensure the diesel generator and water heater to be used on site meet the minimum specifications proposed for mitigation in the applicant's air quality assessment.

349 Some objectors to the application have raised concern of possible toxic odour from gas emissions during drilling and testing operations. The applicant proposes that any gas produced during extraction of oil will be flared. The County Air Quality Consultant has advised that combustion is a prescribed means of destroying odours so there should be no odours from the flare. Furthermore Officers note the applicant has considered the combustion of any hydrogen sulphide (H_2S) and other sulphur containing gases that would result in the formation of sulphur oxides (SOx) which could impact on nearby sensitive receptors. The air quality assessment concludes there will be no significant formation of SOx and therefore inclusion of sulphur dioxides in the modelling study has been discounted.

Conclusion on Air Quality

350 There are three elements in relation to air quality that this proposal could result in significant adverse impacts: dust from site construction and deconstruction works, emissions from the flare and similar equipment; and emissions from the traffic accessing the application site. With regards to dust the applicant has outlined the potential dust sources for the proposal, however no specific mitigation or controls have been proposed commensurate with the risk of the potential dust impact. Therefore to ensure the development is acceptable in terms of dust and assessed in-line with 2014 IAQM construction guidance and that proportionate mitigation is provided according to national Planning Practice Guidance, the CAQC recommends that a condition be attached to any new consent requiring a Dust Management Plan.

351 With regard to traffic emissions, given the number of HGVs accessing the site as an annual average would be below the EPUK and IAQM thresholds, the CAQC is satisfied the impact from this component would not be significant.

352 With regards to the flare and other potential sources of nitrogen dioxide and particulate matters that would be on the site. The CAQC has reviewed the submitted information for this aspect of the proposal and is satisfied that the modelled work demonstrates that emissions from the flare and other plant and equipment on site, would not result in impacts that would be significantly adverse. Officers are therefore satisfied, subject to the recommended condition, that the proposal meets the requirements of the Development Plan Policy MC14(i) of the SMP2011 and does not conflict with Government Policy and Guidance with regard to air quality.

Water Environment & Geotechnical Issues

353 The HH-1 wellsite is on the southern side of Horse Hill which is outside the indicative floodplain of any water body. The River Mole the most significant water feature in the area is over a kilometre from the site. The nearest main river, known as Spencer's Gill is found some 600 m to the south and at its closest point, Deanoak Brook flows to some 1.5 km north west of the site. The wellsite is located is on weald clay underlain by the Hastings Beds which together forms the sequence known as the Wealden Beds. The site does not lie in a Groundwater Source Protection Zone.

354 SMPCSDPD 2011 Policy MC14, seeks to ensure that the potential impact from the development on flood risk, water quality and land drainage are considered and the policy and refers to opportunities to enhance flood storage, at point ii). Policy MC12 states that applications for drilling to appraise potential oil or gas fields 'will only be permitted where the need to confirm the nature and extent of the resources, and potential means of recovery, has been established. Well sites, including the re-use of wellheads used at the exploratory stage, should be located such that there are no significant adverse impacts.'

355 A presumption against new development in areas liable to flood is set out in Policy UT4 of the RBBLP 2005.

<u>Surface Water Management</u>

356 The application site lies within Flood Zone 1 and as it is greater than 1ha, a Flood Risk Assessment (FRA), alongside a Ground Water Risk Assessment was submitted as part of the planning application. In May 2017 the applicant provided clarifying information in an Addendum to the Flood Risk and (Ground Water Risk) Assessments. The application site does not lie within a Groundwater South Protection Zone. The closest water bodies are two small ponds found within the woodland are north of the access track. The northernmost pond is some 175 m from the proposed access track and the central pond is some 90 m from the track. There are several ditches within the woodland area but no watercourses, which are immediately adjacent, or pass through the site. The closest main river is Spencer's Gill found approximately 600 m south of the site but the approximate 5 m change in level between the river and the application site provides a high level of fluvial flood protection to the site.

357 As set out in the NPPF, the main principle with regard to flood protection is that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at high risk using the Sequential Test. The NPPF also states at paragraph 100[13] that development proposals should not increase flood risk elsewhere. Paragraph 102 of the NPPF notes a site-specific FRA, informed by a Strategic Flood Risk Assessment, should "demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall". Paragraph 103 requires consideration to ensure development is appropriately flood resilient and resistant, including safe access and escape routes where requires, and that any residual risk can

[13] NPPF paragraphs 93 to 108 Meeting the challenge of climate change, flooding and coastal change

be safely managed, including by emergency planning; and it gives priority to the use of sustainable urban drainage systems (SuDS).

358 As the proposal is for minerals working and processing (but is not sand and gravel) it would be classified as less vulnerable as outlined in Table 2: Flood Risk Vulnerability Classification in the NPPG[14]. Consequently in accordance with Table 3:Flood risk vulnerability and flood zone 'compatibility' of the NPPG which sets out what development is acceptable within flood zones 1,2,3a and 3b; the proposal is acceptable in Flood Zone 1.

359 The applicants FRA has assessed the risk of surface water flooding as low. Given the topography of the surrounding land and comprising agricultural land and woodland, surface water run-off is likely to be intercepted.

360 The site is underlain by the Weald Clay Formation. The FRA advises that based on the low permeable nature of the underlying geology and topographic position of the site, with ground levels falling away to the south, the risk of ground water emergence within the site is negligible. The FRA has consulted with the local Strategic Flood Risk Assessment. No sewers are identified to pass either upslope or through the site and the risk posed by sewer flooding is considered to be low.

361 As the wellsite is already constructed the applicant proposes to retain the existing surface water management for the site. The Environment Agency and the Lead Local Flood Authority (Surrey County Council) have assessed the applicants FRA and site surface water management proposals.

362 The FRA advises that given the underlying geology, infiltration drainage has not been considered for the discharge of surface water. To reduce risk of flooding the existing surface water drainage has been designed to control all surface water run-off from the site to a greenfield run-off rate (4.4 l/s) for all events up to and including the critical 1 in 100 year + allowance for climate change. The Environment Agency in its original response had queried the applicant's technical details for the design of site drainage. The applicant subsequently clarified the design of the site drainage in an addendum to the flood risk and ground water risk assessments submitted in May 2017.

363 The existing site is fully lined with an impermeable membrane, topped with a stone surface, which is continuous through to a perimeter interceptor ditch. This impermeable membrane protects surface water and ground water from any site leakages or potential spills from the development operations. The interceptor ditch serves the purpose for collecting all drainage from the well pad footprint. An approximate 290m long earth bund, that acts containment, has been constructed on the outside of the ditch. Any rainfall onto the well site compound and bund area is directed into the interceptor ditch and then under gravity, via an outfall pipe and oil bypass separator into a gravel swale beyond the bunded compound which would then be discharged to an existing field dyke to the south of the wellsite. Isolation valves are installed both upstream and downstream of the separator to allow full isolation of the site and separator for maintenance.

364 The applicant advises that during any workover or drilling operations the separator isolation valves will remain closed. After operations any fluids in the ditch will be tested as per an Environment Agency Water Discharge Permit. Pending the test results any excess water would then released from the ditch into the dyke. Any oil contaminants retained on the separator will be removed by road tanker.

365 Salford and Sidlow Parish Council suggests that due to the nature of the surrounding land site surface water must not be allowed to escape onto it and the surface water management scheme must ensure that all surface water must be contained within the site

[14] nPPG paragraphs 001 to 078 Flood risk and coastal change

until it is removed for treatment under license. The Environment Agency in their latest response comments that the applicant's amendments to the description of surface water now reflect more accurately the conditions on site and the working practices agreed to date. The EA also notes that the applicant correctly acknowledges the requirements of the water discharge permit. The Environment Agency therefore raises no objection to the proposed surface water management scheme for the site in terms of environmental pollution control. The EA further advises that they will be regulating this aspect of the development through a water discharge permit issued for the site and therefore wish to withdraw the previous recommendation for a condition requiring a scheme for managing surface water in terms of pollution control.

366 As referred to above, paragraph 103 of the NPPF advises that all planning applications for major development being determined from April 2015 must consider sustainable drainage systems. Surrey County Council as Lead Local Flood Authority (LLFA) has advised that they are satisfied the proposal can meet government policy for sustainable drainage. However, the LLFA advises that hydraulic calculations and drawings should be provided to support the design along with proposed standards and maintenance in accordance with national planning guidance and non-statutory technical standards for SUDS. As this detail has not been provided, to ensure the design meets the technical standards for SuDS, and does not increase flood risk on or off site and is suitably maintained, the LLFA has recommended conditions on any new consent requiring a detailed surface water drainage scheme in relation to SuDS .

Groundwater

367 As set out in paragraph 109 of the NPPF the planning system should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to or being put at unacceptable risk from water pollution. The NPPF also informs that a number of issues exist, of which groundwater pollution control is one, are covered by other regulatory regimes and mineral planning authorities should assume that these regimes will operate effectively.

368 In 2014 a deviated exploratory borehole (HH-1) was drilled at the Horse Hill wellsite that targeted reservoir units of the Portland Sandstone and Kimmeridge Limestone formations. The deviated borehole terminates approximately 600m north west of where it stars at the surface. The HH-1 well recorded the top formations of the Portland Sandstone at a depth of approximately 620m below surface and the Kimmeridge Limestones at depth of approximately 850m below surface. This was followed by flow testing in 2016 that produced, what the applicant believes, to be the highest accumulative stabilised oil flow rate of any UK onshore exploration discovery.

369 For the proposed appraisal operations it is proposed that during Phase 1 there will be further extended well tests (EWT) and short term testing of the identified HH-1 reservoir units (to the north west of the site). Phase 2 will involve drilling and EWT of a deviated sidetrack from the existing HH-1 well targeting the Kimmeridge Limestone reservoirs to the east of the wellsite. Then, depending on the test results of the previous phase, Phase 3 of the development will involve the drilling and EWT of a new deviated HH-2 well from the HH-1 well pad and targeting the Portland Sandstone, and likely penetrating the Kimmeridge Limestones, in a north westerly direction from the well pad. Following completion of the well operations the wells would be plugged and abandoned in accordance with industry best practice and the site cleared and restored during Phase 4 the final stage of the development.

370 Objectors to the application have expressed concerns the drilling operations are a proposal for hydraulic fracturing, a process that would pollute the fresh water environment and disrupt the underlying geology with a risk of land instability or cause possible earthquake. Hydraulic fracturing or 'Fracking' is associated with 'unconventional' sources of gas such as shale gas and coalbed methane. For clarification, the applicant is not

applying for unconventional gas development but is seeking planning permission for conventional drilling and hydrocarbon appraisal for oil and does not seek permission for, or require the use of hydraulic fracturing.

371 The planning application has been accompanied by Groundwater Risk Assessment (GRA) which also forms part of an application for a Mining Waste Permit for the wellsite that is being considered by the Environment Agency (EA) parallel to the planning application. The Environment Agency and County's Geological/Geotechnical Consultant have both been consulted on the planning application.

372 In May 2017, the applicant provided details of an up-to date version of the GRA dated November 2016 submitted for the EA permit application, an addendum to flood risk and groundwater risk assessment and details of information requested by the Environment Agency under the Environmental Permitting (England and Wales) Regulations 2010. The EA has commented that they note the applicant provision of the November 2016 GRA for the planning application although have advised that the original comments provided for planning were based on the November 2016 GRA.

373 The GRA advises that due to the absence locally of formations with significant water bearing properties, the area is not characterised by any significant use of groundwater supply. There are no licensed productive groundwater aquifers in the area, nor are there any Source Protection Zones, which apply to groundwater sources used for public water supply. Neither are there any private water supplies registered with the local Reigate and Banstead Borough Council within 1km of the site. The HH-1 well has been already been drilled, cemented and cased though any potential sensitive groundwater formations. The applicant has pointed out that the drilling of HH-2 would involve drilling down through the Wealden Beds which includes aquifers of secondary importance, although such formations would be too deep for groundwater supply. Similar to HH-1, the HH-2 borehole will be cased off and cemented to protect freshwater-bearing formations.

374 The cemented and steel casing would remain in place to prevent aquifer contamination. During drilling, non-toxic drilling fluids will involve using a Water Based Mud (WBM) system. A programme of drilling mud management would reduce any drilling fluid loss in the penetrated formations to insignificant levels. Blow out preventers would be fitted to minimise the risk of any pressurised fluids reaching the surface.

375 Sutton and East Surrey Water queried how the applicant intends getting water to the site. Water is required to make up drilling fluids which will be used for the WBM system. The applicant estimates the water requirements for the site will be similar to exploratory operations with a maximum weekly requirement of approximately 50,000gallons of water. The applicant advises that water will be brought to site by road tanker and the associated vehicle movements have been included in the proposed maximum 20HGV daily movements for the life of the development. The WBM (drilling mud) system is specifically designed to protect drilling mud losses and is balanced to prevent formation fluid flow into the borehole. When a drilling rig is on site there would be 3 mud tanks on site adjacent to the rig. During the EWT and short term testing operations up-to 5 stock storage tanks would be brought to site and secured in a bunded area on the well pad. Any fluids produced during operations (water/oil) will be stored in the stocks tanks until they are removed from the site by road tanker.

376 Objectors to the application have also expressed concerns that the use of chemical during drilling operations such as the drilling mud and chemicals in the coil tubed 'acidisation' process proposed during workover operations, would pollute groundwater drinking supplies and cause pollution to human health, wildlife and to the environment. The acidisation process is a technique used in conventional wells to help clean out cement debris from perforations through the steel casing, enabling oil to flow more freely into the wellbore. The process involves pumping dilute acid (15% hydrochloric acid in water) into the well. After the wash is pumped into the borehole, spent (reacted and neutralised) acid

will be returned to the surface and any waste created will be collected and disposed at a licensed waste site and in accordance with any associated permits. The Environment Agency has confirmed that they are satisfied that the applicant is proposing to carry out 'acidisation' only for the purposes for well clean up in-line with recognised industry best practice, and the proposals do not constitute a form of well stimulation that would incur additional permitting or planning requirements. Furthermore, the EA advises the operator will adhere to suitable working practices to protect groundwater in-line with current legislation with regard to the use of drilling fluids and any associated chemical additives, all of which will be an explicit requirement for the Mining Waste Permit for the wellsite.

377 Oil and gas wells are regulated under the Offshore Installations and Wells (Design and Construction, Etc) Regulations 1996. Part IV applies to both on and offshore wells. There is a duty to reduce risk by ensuring the exploratory well is well designed, constructed, equipped, operated, maintained, suspended and abandoned. The drilling would have to meet the strict safety code of the Borehole Site and Operation Regulations 1996 enforced by the Health and Safety Executive (HSE). Prior to any drilling taking place, the applicant would be required to provide the HSE with details of how the well would be drilled in a safe manner, including a demonstration that the risk of release of fluids are as low as reasonably practicable. Details of the casing, tubing and blow-out prevention would all be included. The Health and Safety Executive has been consulted on the planning application. The HSE does not comment specifically on the detail of a planning application but instead sets out as standing advice the above regulation they will require be requiring the operator to adhere to for onshore oil or gas operations. This advice includes a requirement for the operator to appoint an independent well examiner for monitoring all elements of the well and that regulatory requirements are met.

378 The Environment Agency and the County's Geological/Geotechnical Consultant have reviewed the application and the accompanying Groundwater Risk Assessment. The County Geological/Geotechnical Consultant advises that the shallow geology of the site (Weald Clay) and the well construction proposals and mitigation are such that they agree that applicants findings the residual risks to groundwater from the operations proposed is very low indeed. The Environment Agency has confirmed that they have no concerns from the proposals in terms of groundwater pollution. Groundwater protection precautions will be undertaken by the operator to comply with their permit conditions and any of the potentially hazardous products used can only be used in circumstances permissible by current legislation of the Environmental Permitting (England and Wales) Regulations 2016.

379 Based on the above and the advice received, Officers consider adequate protection to groundwater pollution has been provided by the applicant and that the CPA can rely on other regulator regimens of the EA permit operating effectively in accordance with the requirements set out in the NPPF.

Conclusion Water Environment and Geotechnical Issues

380 The Environment Agency, the Health and Safety Executive, Sutton and East Water Surrey Water and the County's Geological/Geotechnical Consultant were all consulted on the application. None of the statutory consultees have raised objection to the development. The EA further advises the development will be subject to pollution controls of a separate Mining Waste Permit that also takes into consideration other environmental issues such as air quality, noise and vibration as part of the permitting process. Taking into account the views of these consultees and the mitigation measures incorporated into the proposed development, Officers do not consider that the development would pose any significant risk of pollution to the surrounding environment and are satisfied that should planning permission be granted, of any issue not covered by the regulatory control regimes, can be controlled by way of planning conditions. Officers therefore consider that the proposal satisfies the requirements Policy MC12 and Policy MC14 of the SMPCSDPD 2011 and saved Policy UT4 of the RBBLP 2005.

Archaeology

381 The proposed wellsite is not located in, or close to, a Conservation Area, Historic Park or Garden, or structures of architectural an historic interest.

382 The NPPF sets out government policy for conserving and enhancing the historic environment. At paragraph 32 it states that in determining planning applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, the local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field assessment.

383 Policy MC14 of the SMPCSDPD 2011 (Reducing the Adverse Impacts of Minerals Development) requires that when determining planning applications for mineral development the potential impacts in relation to the historic landscape, sites or structure of architectural and historic interest and their settings, and sites of existing or potential archaeological interest or their settings, to be considered (point v).

384 In paragraph 3.38 of the RBBLP 2005 it is recognised that finds can be made unexpectedly in the course of development and cites mineral extraction as one such development. Saved Policy Pc8 states that where large-scale developments occur outside known Areas of High Archaeological Potential, archaeological assessment will be required.

385 There have been no recorded archaeological investigations undertaken within the site or 1km study area, although the site has already been subject to a preliminary archaeological assessment, written in 2008 prior to the construction and drilling of the HH-1 wellsite.

386 The application is supported by a Heritage Desk-Based Assessment prepared by Cotswold Archaeology. The County's Archaeological Officer has assessed the applications archaeological work and comments that the application site is large and over the 0.4ha specified in the Reigate and Banstead Plan as requiring archaeological assessment prior to commencing development. The Heritage Assessment has assessed the potential impact of the development on both the built heritage of the area as well as the potential for below ground archaeological remains and the report concludes that there will be no significant impact on any designated heritage assets in the vicinity and that the below ground archaeological potential of the site is low.

387 The Archaeological officer advises that although the seemingly low archaeological potential may be the result of a lack of previous investigations in this area, it is made clear in the report that the actual extent of below ground disturbance caused form the proposed new works is extremely limited and therefore it is unlikely that there would be a significant destructive impact upon remains even if any were present

388 Due to these factors the County Archaeological Officer confirms that in this case there is no requirement for any further archaeological work as a consequence of this application.

Conclusions on Archaeology

389 The County's Archaeological Officer has raised no objection to the proposal and taking account of the scale, location and the temporary nature of the development, Officers do

not consider that the proposal would give rise to any adverse impact in relation to the historic landscape, sites or structure of architectural and historic interest and their settings, and sites of existing or potential archaeological interest or their settings. Accordingly, Officers are of the view that the proposal meets the requirements of the Development Plan policy with regard to SMPCSDPD 2011 Policy MC14 and RBBLP 2005 Policy Pc 8.

Restoration

390 The application site falls within a rural area within the Green Belt and the proposed development would temporarily affect both agricultural land and woodland. On the cessation of the exploration, the applicant proposes to return the land to its former use.

391 The importance of securing a good quality restoration is central to the consideration of mineral working and associated proposals. The provision of timely restoration and aftercare at mineral sites is sought by paragraph 144 of the NPPF which states that such activities should be carried out at the earliest opportunity to high environmental standards through the application of appropriate conditions.

392 SMLPCSDPD Policy 17 (Restoring Mineral Workings) states that mineral working will be permitted only where the MPA is satisfied that the site can be restored and managed to a high standard. The restored site should be sympathetic to the character and setting of the wider area; and capable of sustaining an appropriate after-use. The policy goes on to reiterate the view given in MPG7 that mineral works should be completed at the earliest opportunity. A detailed scheme of how the land will be restored and managed should be agreed with the MPA. Advice on restoration is also contained within the Surrey Minerals Plan 2011 Supplementary Planning Document (SPD) entitled Mineral Site Restoration.

393 The applicant provided an outline of general restoration works for restoring the site set out in the planning statement that accompanies the planning application. Following concerns raised by the County Landscape Architect and County Ecologist and comments of Officers, the applicant provided additional detail for site restoration as part of amending information received in May 2017.

394 The applicant proposes to restore the site to its former uses comprising woodland and agricultural grassland which were considered as part of the exploratory planning permission. The proposed development seeks permission for a temporary period for up to three years, although the appraisal operations are anticipated to last for up to 14 months, including the initial site preparation works. The applicant anticipates enclosure of wells and removal of plant and equipment will require around 5 days and then 41 days for restoration works which would take place during the 22 month period following cessation of the main appraisal phases of the development, however restoration could be achieved sooner than 3 years.

395 The applicant proposes that the well pad and field section of the access track will be restored to former agricultural grassland and the remaining section of the access track and site access will be restored to its former woodland use. The wells would be plugged and abandoned by means of a programme and method agreed by the Health and Safety Executive and Oil and Gas Authority. All the existing plant, equipment, membranes, fencing, drainage, concrete and stone surfaces would be removed and the soil stored within the bund replaced to recreate the original ground contours. The proposals include for the cultivation of soils to prevent weed growth prior to planting and if necessary a proposal to provide a scheme of field drainage in the site area to be agreed with the land owner. The applicant has provided only brief outline aftercare and management proposals, although has not provided details of any planting scheme.

396 The County's Landscape Architect (CLA) has said that the general principle of the restoring the site to a mixture of woodland and agricultural grassland is still considered

acceptable. The CLA also considers the proposed reinstatement operations for the restoration of soils to be acceptable. However, the CLA also commented that the applicant has not provided any details of a restoration planting scheme to cover the grassland, hedgerow and woodland planting or sufficient detail on planting operations, protective fencing, stock fencing and gate furniture. The CLA notes that some detail has been provided on aftercare but lack precise detail on annual operations for plant establishment, management of hedgerow planting, the monitoring of plant failures to cover a 5 year aftercare period. The CLA concludes that whilst they consider the general principles for restoring the site are acceptable it is recommended a detailed planting scheme including compartment plan, and an aftercare scheme for 5 years is secured by condition on any new consent. The County Enhancement Officer agrees with these views and recommends a scheme of planting and aftercare are secured by condition.

397 From an ecology point of view the County Ecologist has commented that the applicant may propose an onsite option to translocate great crested newts (GCNs) to a new pond created within the site. If this option is chosen and when this part of the site is restored to agriculture the GCNs will need to be further relocated, however this detail has not been covered in the application documents. The Ecologist advises that a separate method statement will be required for relocating the newts under licence, although officer recognise this is to be acknowledged as part of the restoration proposals and could be incorporated as part of a restoration planning condition requirement.

398 There have been no technical objections from other statutory consultees for restoring the application site back to agriculture grassland and woodland uses.

Conclusion on Restoration

399 It is proposed to restore the site to a mixture of agricultural grassland and woodland after use. Both agricultural and woodland are uses compatible with the site's Green Belt status and the restoration has the potential to provide limited ecological enhancements. Officers do not consider there is any reason to believe that that site cannot be restored to a beneficial afteruse, which is sympathetic to the character and setting of its locality. Officers consider that the timings and the details of final restoration and aftercare can be controlled by condition. Accordingly, Officers consider that the proposal would not conflict with the relevant national guidance and would comply with the Development Plan SMPCSDPD 2011 Policy MC17.

OTHER ISSUES

Health and Safety and Fire Risk

400 Objectors to the application have expressed concern that the nature of the operations at the site carries a risk of fire or explosion that will endanger local resident's lives, the wildlife and the environment. Local residents are concerned that no details of any emergency action plan have been provided. The Norwood Hill Residents have said that the applicant should provide illustrations of 'blast zones' in the unlikely and improbable event of a dangerous accident.

401 Matters of heath and safety and fire risk are enforced by the Health and Safety Executive (HSE) and would have to meet the strict safety code of the Borehole Site and Operation Regulations 1995 and other regulatory regimes of the EA and OGA. The HSE has been consulted on the application and has raised no objection. The Surrey and Fire Rescue Service have also been consulted on the application and raises no objection. When determining a planning application mineral planning authorities should assume when matters are covered by the other regulatory regimes that these regimes will operate effectively.

High Pressure Pipelines

402 A concern has been expressed of the presence of a high pressure petroleum pipeline in the vicinity of the wellsite that could be impacted by the proposed development, particularly from vibration during operations. The high- pressure pipeline while routed close by the site beyond the south west corner travelling south easterly, does not pass through the site and is not buried at depth. The British Pipelines Agency (BPA) has been consulted on the application and does not raise any objection, although advises any construction works must be kept 6m from the pipeline and has recommended an informative advising the applicant that when planning any works to check with the BPA, if necessary for written acceptance, before starting works.

Airport Safeguarding

403 The drillsite is proposed for a site which is found some 3.3 km north of Gatwick Airport. For the development the applicant is proposing either a 32m high workover rig or a 37m high drilling will be used on site. The Gatwick Airport Safeguarding were consulted on the application and have said that as the rig is close to the helicopter take off surfaces they will require an obstacle light installed as close as possible to the top of a rig. Therefore in order that permission may be granted and that the development will not conflict with aerodrome safeguarding criteria a condition must be imposed to ensure a steady red aviation warning light of 200 candelas and visible in all directions and illuminated at all times is placed of a rig. They have drawn attention to the British Standard Code of Practice for the Safe Use of Cranes, which requires crane operators to consult the aerodrome before erecting a crane in close proximity to an aerodrome which is included as Informative in the recommendations set out in this report.

METROPOLITAN GREEN BELT

Surrey Minerals Plan Core Strategy Development Plan Document 2011 (SMPCSDPD 2011)
Policy MC3 - Mineral Development in the Green Belt
Policy MC17 – Restoring mineral workings
Policy MC14 – Reducing the adverse impacts of mineral development
Reigate and Banstead Core Strategy 2014
Policy CS3 – Green Belt
Reigate and Banstead Borough Local Plan 2005 (RBBLP 2005)
Policy Co1 setting and Maintenance of the Green Belt

404 Horse Hill wellsite is located within the Metropolitan Green Belt where policies of restraint apply. National planning policy with regard to Green Belt is set out within the NPPF which at paragraph 79 states that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open: the essential characteristics of the Green Belts are their openness and their permanence. Paragraph 80 then sets out five purposes of the Green Belt. Of these five, the only one directly relevant to this application is the third, pertaining to assist in safeguarding the countryside from encroachment.

405 Green Belt policy guards against inappropriate development. The NPPF states at paragraph 87[15] that “inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances”. The NPPF requires at paragraph 88 that substantial weight is given to any harm to the Green Belt and that very special circumstances will not exist unless the potential harm other to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.

406 Minerals can only be only be worked where they are found and a feature of such development is that it is reversible through restoration and a temporary activity. Paragraph 90 of the NPPF sets out that certain forms of development need not be

[15] NPPF paragraphs 79 to 92 Protecting Green Belt land

inappropriate development provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land within Green Belt. One of these forms of development is mineral extraction. For oil and gas extraction there are three stages to the mineral development involving exploration, appraisal and production stages. When determining planning applications paragraph 144 of the NPPF states that local planning authorities should give great weight to the benefits of mineral extraction, and in granting planning permission ensue that there are no unacceptable adverse impacts on the natural or historic environment, human health or aviation safety and provide for restoration and aftercare of mineral workings at the earliest opportunity to be carried out to high environmental standards, through the application of conditions, where necessary.

407 Policy MC3 (Spatial Strategy – mineral development in the Green Belt) of the SMPCSDPD 2011 states that mineral extraction in the Green Belt will only be permitted where the highest environmental standards of operation are maintained and the land restored to the beneficial after-uses consistent with Green Belt objectives within agreed time limits. The Policy MC3 also recognises that proposals in the Green Belt for mineral development other than extraction and primary treatment will only be permitted where the applicant has demonstrated that very special circumstances exist to outweigh the harm by reason of inappropriateness and any other harm. Policy MC17 goes on to state that mineral working will only be permitted where the mineral planning authority is satisfied that the site can be restored and managed to a high standard.

408 Strategic Policy CS:3 Green Belt of the RBLP CS 2014 states that a robust and defensible Green Belt will be maintained to ensure that the coherence of the green fabric is protected and future growth is accommodated in sustainable manner. At (2) Policy CS:3 it adds that planning permission will not be granted for inappropriate development in the Green Belt unless very special circumstances clearly outweigh the potential harm to the Green Belt. RBBLP 2005 saved Policy Co 1 (Setting and Maintenance of the Green Belt) has a presumption against development that is inappropriate to the Green Belt unless justified by very special circumstances. The policies lists a developments where permission will be granted, policy criteria (b) informs that such a development is 'the carrying out of an engineering or other operation or the making of any material change in the use of land provided that it maintains the openness of the Green Belt and does not conflict with the purposes of including land in it.'

409 Given the site's Green Belt location it is necessary to consider whether the proposed development would maintain high environmental standards during operation and whether the restoration of the site can be achieved to a good standard and will provide an acceptable afteruse consistent with Green Belt objectives. Much of the consideration of whether high environmental standards could be maintained and whether an appropriate and acceptable restoration can be achieved has been covered in above sections of the report. Where there is need for a mineral and the site can be well restored and harm otherwise controlled acceptably by design or mitigation, then development can be considered to accord with Green Belt policy.

410 The applicant is applying for planning permission extending over a temporary period of three years. However, the main operational phases involving site preparation, appraisal testing and drilling operations are programmed to take place over a period of up to a 14 months within that 3 year time period. At the end of the development, abandonment of the wells and clearance of the site and restoration of the site would take place over a period of up to 46 days during the remaining 22 months of the three year period. The applicant has set out the various operational phases of the development and the timescales over which they would take place. During the initial 30 day site preparation, activity at the site would involve movement of plant, vehicles and materials, and ground works and activity associated with the mobilisation of the site would be noticeable. Thereafter, either a 32m high workover or 37m high drilling rig and associated equipment will be mobilised and demobilised to and from the site depending on the work stage for workover operations, drilling and sidetrack drilling that would cover a period of up to 13 months (390 days).

When either rig is on site it would be seen in the landscape from certain locations during the day and during night hours as the rig and site would be lit. In the same 13 month period EWTs and short term testing, that may require some pumping, will take place with associated testing equipment also requiring the site to be lit at night. Aside of vehicle movements on the access track and site access the development is concentrated on the well pad. The well pad itself is constructed to an area of approximately 0.64ha which represents approximately 31 per cent of the overall application site area. The 37m high drilling rig and 7m high substructure will be largest plant situated on the well pad. Portable offices and accommodation and store building will be positioned around the well pad the tallest of which is 3.75m. The well pad will also accommodate a 10m high flare stack and along the northern edge of the compound is a 3m high, 85m long, 13m wide at the base, soil storage mound formed of stripped soils from construction of the wellsite. Given the scale and duration Officers recognise the development will have a moderate impact on openness.

411 The applicant is applying for a three year period as a 'worst case scenario to accommodate the appraisal operations although has built in allowance for some uncertainties on timing that results from time delays that may occur such as taking receipt of hired equipment such as workover or drilling rig and testing equipment and ecological and restoration timing constraints. While the main appraisal activities would take place over a period of up to 14 months overall, the activities would not necessarily follow each other continuously and there may be periods of inactivity on site, particularly when the results of EWTs and drilling are being assessed. The three year time period also needs to factor timing for analysis of the appraisal testing results which the applicant proposes will take place during the final 22 months of the development, covering the period while the site is cleared and restored.

412 The activities taking place on site would have a temporary impact on openness, and the constructed site itself would also have a temporary impact on openness of the Green Belt. However, while the appraisal operations cover a prolonged period compared to exploration, provided there is adequate provision for clearance of the site and restoration, this is a temporary use of land, and therefore preserve the openness of the Green Belt.

413 Local objectors have suggested that the site should be located at an industrial unit located elsewhere and Norwood Hill Residents say the development is inappropriate in the Green Belt, particularly given the site access with Horse Hill. The HH-I wellsite was originally indentified as a site suitable for exploration following a site selection process. The nPPG at paragraph 120 (Minerals) states that when determining applications for phases subsequent to the exploratory phase, such as appraisal, the fact that exploratory drilling has taken place on a site is likely to be material in determining the suitability of continuing to use that site only insofar as it establishes the presence of hydrocarbon resources. Nevertheless, the NPPF places considerable importance upon the need to exploit oil and gas resources and paragraph 142 makes clear that minerals can only be worked where they are found and it therefore important to make the best use of them. Distance is a factor that limits drilling, even if drilling directionally, and is subject to constraints in terms of the geology and the geometry of the well trajectory. The HH-1 wellhead location is at Horse Hill and the deviated bore is drilled to a depth below which terminates approximately 600m north-west of where it starts. The proposal involves workover and further EWT, and drilling of a sidetrack of the existing HH-1 well to further appraise the identified target formations of the Portland Sandstone and Kimmeridge Limestone following on from exploration. The proposal also involves drilling a second borehole HH-2 which is to be drilled adjacent to HH-1 and to deviated depth also target the Portland Sandstone and Kimmeridge Limestone. For these reasons the applicant considerers it is necessary to retain the existing site. The existing site access on Horse Hill was previously selected as most safe and suitable location for an access to the site and the County Highway Authority raises no objection to the retention of the site access subject to the conditions in the Highways section above.

414 There will be some views of the drilling rig because of its height, although the lower and middle parts part of the rig and the site itself will be mostly screened form view by woodland and topography. The greatest potential adverse affect is to users of the nearby rights of way to the west of the site, extending to the route that follows parallel to the site southern boundary where glimpses of the wellsite and moving vehicles are likely to be visible on the western section of the access track. While the drillsite, and plant and equipment with their industrial characteristics would be located in a rural area, and would involve some limited harm to the visual amenities of the Green Belt whilst the site was operational, it is considered that the scale and very temporary nature of the development would not give rise to any significant or lasting adverse impact. All the equipment and portable buildings would be used in association with the mineral working.

415 As part of the application the applicant originally proposed a 6m high, 81m long, and 1.5m wide acoustic and lighting barrier. This has now been amended. In May 2017 the applicant revised the application to omit the proposed acoustic/lighting barrier and instead proposes to clad the perimeter of the well pad fencing to mitigate noise and light. The applicant has not provided details of the fence cladding, although the perimeter fencing would be no more than 2.4m high and the fencing is provided for security of the site. To justify whether the fence cladding may be acceptable mitigation Officers will require the applicant to provide a detailed scheme which can be secured by condition but otherwise consider that the provision of fencing of no more than 2.4m in height is a proportionate measure given the nature of the development.

416 Officers recognise that mineral working is a temporary activity and the site would be restored to an agricultural and woodland use once hydrocarbon appraisal operation have ceased. The site would then return to fulfilling the objectives of land within the Green Belt.

Green Belt Conclusion

417 Officers consider there is no reason to believe that the site could not be well restored to the proposed after-uses, which are uses consistent with Green Belt objectives. Where recommended by consultees, planning conditions would be required to ensure that high standards are maintained. The need for the appraisal of the hydrocarbon resource has been demonstrated in the sections above and that high environmental standards would be achieved and the site well restored. Technical consultees have considered the proposal and their views are set out in detail in earlier sections of the report. Where recommended by consultees, planning conditions would be required to ensure that the high standards are maintained. Given the temporary and reversible nature of the development and the absence of any other harm, Officers consider that the proposal is not inappropriate development and does not conflict with the Development Plan or national guidance with regard to Green Belt policy set out in the NPPF and Guidance, SMPCSDPD 2011 Policy MC3, Strategic Policy CS:3 Green Belt of the RBLP CS 2014, and RBBLP 2005 saved Policy Co 1.

HUMAN RIGHTS IMPLICATIONS

418 The Human Rights Act Guidance for Interpretation, contained in the Preamble to the Agenda is expressly incorporated into this report and must be read in conjunction with the following paragraph.

419 It is recognised there would be some slight temporary adverse impacts in terms of amenity from visual, noise and lighting disturbance from workover, extended well test and drilling operations during the main operational stages of the development. Officer’s view is that during the site preparation and the restoration stages the impacts from the development would be negligible. Nevertheless, it is Officer’s view that the scale of any potential impacts are not considered sufficient to engage Article 8 or Article 1 and that

potential impacts can be mitigated by planning conditions. As such, this proposal is not considered to interfere with any Convention right.

CONCLUSION

420 The proposed development seeks temporary planning permission for a period of three years to retain the existing Horse Hill (HH – 1) wellsite in order to appraise oil accumulations of the target Portland Sandstone and Kimmeridge Limestones reservoir units discovered during the previous exploratory stage to establish whether the reserves can be economically exploited. The development is spread across 4 phases, although the main appraisal operations will take place during the first 3 phases that would take up to 14 months. The proposal involves initial site preparation including minor construction works to the access track and a new concrete well cellar, and the mobilisation of portable buildings, plant and equipment to the wellsite. The appraisal activities will involve workover operations, extended well testing and short term testing, the drilling of a sidetrack well from the existing HH-1 well and depending on test results the drilling of a second HH-2 deviated well adjacent the HH-1 well. A 32m high workover or 37m high drilling rig and associated equipment will be mobilised and demobilised to the site depending on work stage. Also included is a 10m high flare stack and the erection of perimeter security fencing. Following the cessation of appraisal operations the wells will be plugged and abandoned and the site cleared and restored.

421 Government policy makes it clear that oil and gas remains an important part of the UK's energy mix. Policies recognise the continuing importance of fossil fuels but aim to manage reliance on them, their potential environmental effects and the risks associated with security of supply. While the Government manages the transition to a low carbon energy mix this will mean that oil and gas remain key elements of the energy system for years to come (especially for transport and heating). Government policy is set out within the NPPF, the Annual Energy Statement, the Government's Energy Security Strategy the White Paper and BEIS statistics and recognises there is a need to maximise indigenous oil and gas resources both onshore and offshore. Appraisal testing and drilling is one step in the process of being able to evaluate the extent of the oil deposits and establish whether the reserves can be economically exploited in line with Government policy. Officers consider that given the appraisal function of the development, it is not in conflict with the Government's climate change agenda. Once further testing and evaluation is concluded the site would be cleared, the soil returned and the site restored to agriculture and woodland sustainable uses. This leads Officer's to conclude that on the basis of Government guidance there is a national need for the development subject to the proposal satisfying other national policies and the policies of the Development Plan.

422 Onshore drilling is a temporary but intensive activity which includes some 24 hour activity and under SMPCSDPD 2011 Policy MC12 the MPA should be satisfied that well sites, including the re-use of wellheads used at the exploratory stage, should be located such that there are no significant adverse impacts.

423 The proposed site falls within the Weald Basin and minerals can only be worked where they are found. One concern raised the use of directional drilling to reduce potential environmental impacts. The exploratory wellsite (HH-1) location was determined by the geological structure the applicant intends to explore and the choice of above ground sites are constrained by a number of factors that include geological, operational, environmental and amenity factors. The applicant now seeks to further test the oil accumulations discovered during the previous exploration stage to establish if these can be economically exploited. On the basis of the information submitted by the applicant and advice of technical consultees, Officers conclude that the proposed location represents the best viable option for the proposed appraisal operations in terms of practicality and technical grounds.

424 The wellsite would be well-screened by the surrounding hedgerows, woodland and topography. Nevertheless the top section of the 37m high drilling rig or 32m high workover rig would be visible above the vegetation during the period it would be on the site from certain points. While the rig would be visible during the daytime Officers conclude this would be of limited visual impact. However it will be necessary for the rig and site to be lit at night time to meet health and safety regulations. Local residents have expressed concern of the impacts on properties from the proposed lighting which would increase during winter. The County Lighting Consultant considers the lighting proposals to be a minimal scheme, although to ensure adequate mitigation of likely adverse impacts to nearby receptors has recommended a condition for a detailed lighting scheme. Given the temporary nature and degree of impact, Officers do not consider that either the rig or the development as a whole would have a significant adverse visual impact or that the harm is so great to justify refusing the proposal on the grounds of visual impact and that light intrusion can be controlled as far as practicable by condition.

425 Concern has been raised on ecology, particularly for bats resulting from proposed tree works. The applicant has carried out a number of ecological surveys including surveys of protected species. The County Ecologist and the Surrey Wildlife Trust have assessed the proposals and conclude any potential ecological and biodiversity issues are resolvable by the mitigation measures proposed and by imposing planning conditions including for the timings of any works.

426 During the period of extended well testing and drilling operations the site would operate 24 hours a day and noise from drilling operations would be audible particularly at night although noise impacts can be controlled. Local residents have expressed concern of night time noise and Norwood Hill Residents' and Salfords and Sidlow Parish Council both raised a concern of sudden noise, particularly to horses at the neighbouring Equestrian or nearby properties.

427 The applicant is proposing noise limits for this temporary development in accordance with the previous planning permission RE10/2089 which the County Noise Consultant considers to be reasonable. The applicants predicted noise levels for all operations at the nearest noise sensitive receptor would be within the limits proposed for the daytime period but on a worst-case scenario basis would exceed the limits for proposed for the night-time period by up to 6dB. However, the County Noise Consultant acknowledges that attenuation and mitigation exists that has not yet been taken into account to meet night time noise limits and has therefore recommended a condition requiring a noise scheme to mitigate night time noise, alongside several conditions for noise control. In terms of sudden noise, the applicant has acknowledged the issue sudden noise may have on horses, although does not anticipate sudden noise from the development. Drilling is constant operation where the noise source is constant. Of the drilling operations that may give rise to sudden noise is the process of pipe tripping, where drilling pipes are manually handled and may contact one another. Officers are recommending the hours at which tripping takes place is controlled by condition to the daytime period. In view of the advice of the County Noise Consultant, Officers are of the view that any likely adverse impact from noise can adequately be controlled. The noise from the development would be temporary and acceptable noise levels, hours of operations, and mitigation can be secured by condition.

428 Concerns have been expressed that the proposal involves fracturing and that pollution of the main water supply in the area along with issues of land instability could occur from drilling operations and from chemicals used. This application is for conventional oil and gas exploration and technical consultees have carefully reviewed the proposal and the mitigation measures incorporated into the proposed development for hydrological and geotechnical impacts. The potential impact on air quality has also been considered, both in terms of traffic emissions and emissions from the wellsite. In view of the advice received Officers do not consider that the development would pose any significant risk of pollution or stability issue to the surrounding environment and are satisfied that should

planning permission be granted, those issues not covered by control regimes, can be controlled by way of planning conditions.

429 Highway and traffic implications of the proposal have been a leading local concern particularly resulting from protester activity during the previous exploratory stage, leading to traffic delays and restriction to access of properties. There are no practical options to move the materials and equipment to or from the site by any other method of transportation. Whilst the development would not be a particularly large traffic generator in total numbers, there would be an increase in HGVs using Horse Hill over the temporary period. The County Highway Authority acknowledges the concerns of local residents regarding protestor activity and is recommending a traffic management plan for the development that will also need to consider contingency measures in the event protesters delay HGVs travelling along Horse Hill to the site. Having assessed the development proposal the Highway Authority has concluded that the local highway network in the vicinity of the site could accommodate the traffic associated with the use and that the proposal would not be detrimental to highway safety provided the recommended conditions are imposed. Otherwise, Officers consider traffic related matters should not give rise to any significant adverse environmental impacts.

430 The views of technical consultees have been reported under individual issues earlier in the report. There is no reason to believe that high environmental standards cannot be maintained during the period of activity proposed. Consideration has been given to whether any adverse environmental impacts can be appropriately mitigated and Officers consider that the planning conditions recommended relating to the protection of the local environment are suitable.

431 The application site is located in the Metropolitan Green Belt where mineral related development need not be inappropriate development provided that high environmental standards are maintained and the site is well restored. The applicant proposes to return the current agricultural and woodland uses which would ensure the site is absorbed back into the local landscape and both these uses are compatible with the site's Green Belt status. The development offers opportunities to increase biodiversity value through maintaining a provision of bat and bird boxes within the woodland, and a scheme for protecting great crested newts and other ecological mitigation measures. There is no reason to believe that that site cannot be well restored to a beneficial afteruse, which is sympathetic to the character and setting of its locality and therefore Officers consider that the proposal is acceptable in terms of Green Belt policy.

432 The activity associated with constructing operation at the beginning and end of the development and undertaking drilling would give rise to some temporary impact on amenity especially when considering the rural nature of the locality. Nevertheless, mineral working is a temporary activity and the hydrocarbon appraisal operations would be short term and completed within a 3 year period. The concerns of local residents are acknowledged, but on the basis of the responses received from technical consultees, assessing national policy and development plan policy matters and taking into account need, Officers consider that with the imposition of appropriate conditions where necessary the proposed exploratory drilling would not give rise to significant unacceptable environmental or amenity impacts and may therefore be permitted.

RECOMMENDATION

The recommendation is to PERMIT subject to the following conditions.

Conditions:

Pre-commencement

1. Prior to the commencement of the development hereby permitted a Transport Management Plan shall be submitted to and approved in writing by the County Planning Authority. The Transport Management Plan to include details of:
(a) programme of works for each phase;
(b) measures for traffic management by phase at the access on Horse Hill and at the Horse Hill/A217 junction, taking into account the number and size of the HGVs;
(b) provision of boundary hoarding behind any visibility zones;
(c) HGV deliveries and hours of operation;
(d) vehicle routing;
(e) measures to prevent the deposit of materials on the highway;
(f) before and after construction condition surveys of the highway between the site and the A217 and a commitment to fund the repair of any damage caused by the development;
(g) in the event that protestors delay HGVs accessing the site, contingency measures to prevent vehicles queuing back from Horse Hill onto the A217 and to maintain access for local residents and businesses;
Only the approved details shall be implemented during the duration of the development.

2. Prior to the commencement of the development hereby permitted, a scheme of noise mitigation shall be submitted to and approved in writing by the County Planning Authority. The mitigation measures will ensure that the noise levels set out in Conditions 18 and 19 are met. Mitigation shall be put in place prior to any operations taking place and shall be retained and maintained for the duration of the works.

3. Prior to the commencement of the development hereby permitted, a Noise Monitoring Plan shall be submitted to and approved in writing by the County Planning Authority. Noise monitoring shall only be undertaken by those competent to do so (i.e. Member or Associate grade of the Institute of Acoustics).

4. Prior to the commencement of the development hereby permitted, a detailed Lighting Scheme for all lighting proposed for the development shown on 'Illustrative Site Plan Drilling Mode Lighting Plan', Drawing No.13, 'Revised Location of Lights' Dated: 09.02.17, shall be submitted to the County Planning Authority and be approved in writing. The lighting scheme shall include:

- Details of the height and location of all lights including details of all lamps sources confirming lumen output for each lamp type.
- Assessment of the spread and direction for both spill and confirmation of %sky glow of all lighting proposed and methods of any shielding that is deemed necessary to reduce light Spill outside of the site boundary.
- Confirmation of the illumination levels of the work areas including all access ways and
  general circulation spaces, specified in lux. This shall take the form of a detailed isolux contour plan drawing.
  - Vertical illumination levels shall be confirmed where applicable to residential properties that are adjacent to the site. We would suggest this is modelled using software such as Dialux, Relux or Lighting Reality.
  - The times when the proposed lighting will be illuminated.
  - Confirmation that none of the installed flood lighting luminaires are tilted from horizontal any greater than 15 degrees.
  - Confirmation that all rig linear luminaires are installed inward and downward facing.

The lighting shall be installed and operated in accordance with the approved Lighting Scheme. The applicant shall confirm that all lighting required for operations and maintenance will be locally switched and manually operated, on an ‘as required’ basis, and that the install luminaires over the cabins/stores doors (assumed), will be controlled by presence detection with a manual override.

5. Prior to the commencement of the development hereby permitted a detailed design of the Surface Water Drainage Scheme shall be submitted to and approved in writing by the County Planning Authority. Those details shall include:

a) A design that satisfies the SuDS Hierarchy and follows the principles set out in the approved drainage strategy ‘R/161481/002 Flood Risk Assessment’ including ‘HH-PR-Q16 Addendum to the Flood Risk and Ground Water Risk Assessments’

b) Detailed drawings showing drainage layout, long or cross sections of each drainage element, pipe sizes and invert and cover levels.

c) Appropriate calculations to the elements above showing how the national SuDS standards have been met (if different from approved strategy).

d) Details of who will maintain the drainage elements and their associated maintenance regimes.

6. Prior to the first use of the development, a verification report carried out by a qualified drainage engineer must be submitted to and approved by the County Planning Authority to demonstrate that the Sustainable Urban Drainage System has been constructed as per the agreed scheme.

7. Prior to commencement of the development hereby permitted, an Ecological Mitigation Scheme shall be submitted to and approved in writing by the County Planning Authority. The scheme shall provide specifications for any habitat management and/or translocation necessary to address potential impacts on reptiles and other protected species, including exclusion fencing, as outlined in the 'Horse Hill: Recommendations for Mitigation Measures' document and 'Landscape Strategy' drawing EDP3445/11, and confirmation whether a Natural England development licence is required to cover any translocation of Great Crested Newts. The final approved Ecological Mitigation Scheme shall be implemented in full and those protection measures that are required to be retained shall be maintained in a functional condition for the duration of the development and any agreed aftercare period.

8. Prior to the commencement of the development hereby permitted a Dust Management Plan for construction and restoration operations shall be submitted to the County Planning Authority and approved in writing. Such a plan shall include measures necessary to minimise any impact upon local road users, residential properties located near the site, or any other sensitive interests of importance from the emission of dust from the application site. The approved plan shall be implemented and retained in place for the duration of the development in a condition that ensures the aims of the approved plan are met.

Approved Documents

9. The development hereby permitted shall be carried out in accordance with the following approved plans:

Site Location Plan	Drawing No. P01	Dated: 14.09.16
Existing Site Plan Composite	Drawing No. P02	Dated: 13.10.16
Existing Site Plan 1 of 3	Drawing No. P03	Dated: 13.10.16
Existing Site Plan 2 of 3	Drawing No. P04	Dated: 13.10.16
Existing Site Plan 3 of 3	Drawing No. P05	Dated: 13.10.16
Proposed Site Plan Composite	Drawing No. P06	Dated: 13.10.16 (amended - received 17.07.17)

Proposed Access Track 1 of 3 Drawing No. P07 Dated: 13.10.16
Proposed Access Track 2 of 3 Drawing No. P08 Dated: 13.10.16
Proposed Access Track 3 of 3 Drawing No. P09 Dated: 13.10.16
Proposed Siteline Details Drawing No. P10 Dated: 13.10.16
Proposed Site Plan Drilling Mode HH-1 Drawing No.P11 Dated: 13.10.16 (amended - received 17.07.17)
Proposed Site Plan Drilling Mode HH-2 Drawing No.P12 Dated: 13.10.16 (amended - received 17.07.17)
Illustrative Site Plan Drilling Mode Lighting Plan Drawing No.P13 Revised Location of Lights Dated: 09.02.17 (received 08.08.17)
Illustrative Site Plan EWT Mode HH-1 Drawing No.P14 Dated: 13.10.16 (amended - received 17.07.17)
Retention Site Selection EWT Mode HH-2 Drawing No.P15 Dated: 13.10.16 (amended - received 17.07.17)
Proposed Site Retention Mode Drawing No.P16 Dated: 13.10.16
Illustrative Sections Drilling Mode HH-1 Drawing No.P17 Dated: 13.10.16 (amended - received 17.07.17)
Proposed Site Plan - Drilling Mode Parameters HH-1 and HH-2 Drawing No.P18 Dated: 13.10.16
Illustrative Sections Drilling Mode Parameters Drawing No.P19 Dated: 13.10.16 (amended - received 17.07.17)
Illustrative Sections EWT Mode HH-1 Drawing No.P20 Dated: 13.10.16 (amended - received 17.07.17)
Illustrative Sections EWT Mode HH-2 Drawing No.P21 Dated: 13.10.16 (amended - received 17.07.17)
Illustrative Sections Retention Mode Drawing No.P22 Dated: 13.10.16
Proposed Rig Section 1 of 2 Drawing No.P23 Dated 13.10.16
Proposed Rig Section 2 of 2 Drawing No.P24 Dated 13.10.16
Proposed Fencing Layout - Composite Drawing No.P25 Dated: 29.03.17
Permitted Site Boundary for planning Permission ref RE10/2089 Drawing No.SK-01 Dated: 24.10.16
Restoration Site Area Drawing No.SK-03 Dated: 25.05.17
Landscape Strategy Drawing No.EDP3445/11 Dated: 11.10.16
Plan EDP 2: Tree Impact Assessment Plan dated 05.10.16

10. A copy of this decision notice together with the approved plans and any schemes and/or details subsequently approved pursuant to this permission shall be kept at the site office at all times and the terms and contents therefore shall be made known to supervising staff on the site.

Commencement

11. The development hereby permitted shall be begun before the expiration of three years from the date of this permission.

Time Limits

12. This planning permission shall be limited to a period of three years from the date of this decision. The developer shall notify the County Planning Authority in writing within seven working days of the commencement of the implementation of the planning permission.

13. Prior written notification of the date of commencement for each phase of development works (site preparation and construction, drilling, testing and restoration) hereby approved shall be sent in writing to the County Planning Authority not less than seven days before such commencement.

14. Within the 3 year period referred to in Condition 4, the site shall be operational in accordance with the phasing timescales set out in Table 4.1 of the Planning Statement and Table 3.1 of the Transport Statement Addendum, copied below:

Phase 1 - 210 days
Phase 2 - 100 days
Phase 3 - 110 days
Phase 4 - 46 days

The applicant shall keep daily records of the time periods for each operational phase which should be made available at all times for inspection by the County Planning Authority. Restoration of the site shall take place within the three year time period referred to in Condition 4 and shall be completed no later than the end of the planting season following immediately upon the removal of all buildings, plant, machinery (both fixed and otherwise) and any engineering works connected therewith, on or related to this application from the site.

Hours of Operation

15. With the exception of drilling, extended well tests (EWTs) and short-term testing, no lights shall be illuminated nor shall any operations or activities authorised or required by this permission, take place other than during the hours of:-

0800 to 1830 hours on Monday to Friday
0900 to 1300 hours on Saturday

Apart from the exception referred to above, there shall be no working at any time on Sundays, Bank Holidays or National Holidays.

Limitations

16. Notwithstanding any provision to the contrary under Part 17 of the Town and Country Planning (General Permitted Development Order) 2015 or any subsequent Order,

(a) no plant, building or machinery, whether fixed or moveable, other than those permitted by this application, shall be erected pursuant to the said permitted development rights, on the application site;

(b) no lights or fences other than those permitted by this application shall be installed or erected at the application site.

Highways & Access

17. No development hereby permitted shall take place until the access road including its junction with Horse Hill has been provided with visibility splays of 2.4m x 160m in both directions and thereafter the visibility zones shall be kept permanently clear of any obstruction over 1.05m high whilst the access is in use.

18. All HGVs shall enter and exit the site to/from the south east via the Horse Hill/A217 junction.

19. There shall be no more than a total of 20 HGV movements (10 in and 10 out) to or from the site in any one day. The site operator shall maintain accurate records of the number of HGVs accessing and egressing the site daily and shall make these available to the County Planning Authority on request.

20. Within 3 months of the completion of site restoration works, the access from the site to Horse Hill shall be permanently closed and any kerbs and verge fully reinstated by the applicant.

Noise

21. For temporary operations, such as site preparation, enabling and construction, the noise limit is 65 dB LAeq,30min between 08:00 hours and 18:30 hours Monday to Friday, and between 09:00 hours and 13:00 hours Saturday, with no audible noise being permitted at any other time. The noise limit applies 3.5 m from the façade of any affected property.

22. For operations other than temporary, including workover, drilling, side drilling and flaring, the noise limit is 48 dB LAeq,30min between 08:00 hours and 18:30 hours Monday to Friday, and between 09:00 hours and 13:00 hours Saturday. At all other times the noise limit is 42 dB LAeq,30min, which is applicable to drilling and associated activities. The noise limit applies 3.5 m from the façade of any affected property.

23. Between the hours of 1830 to 0800 inclusive, no tripping shall be undertaken, nor shall casing be cemented except in cases of emergency.

24. All plant and machinery shall be adequately maintained and silenced in accordance with the manufacturer's recommendations at all times.

Ecology & Biodiversity

25. No removal or cutting of vegetation including trees and shrubs shall be carried out between 1 March and 31 August inclusive in any year.

26. A licensed bat worker shall be in attendance to supervise any felling of lopping of mature trees in connection with any works hereby permitted. If any further trees are to be removed or lopped, they will have to be checked for evidence of bats and emergent surveys conducted, if necessary. If bats are found, the works will either need to be timed to avoid harm to the bats or a license obtained from Natural England.

27. The five bat and five bird Schwegler type woodcrete boxes provided under planning permission ref. RE10/2089 shall be retained on site and maintained.

Lighting

28. Obstacle lights shall be placed as close as possible to the top of the drill rig. These obstacle lights must be steady red lights with a minimum intensity of 200 candelas. Lights must be visible from all directions and illuminated at all times. Unserviceable lamps must be replaced as soon as possible after failure and in any event within 24 hours.

Contamination

29. A post development Soil Sampling Report shall be submitted after decommissioning of the wellsite but prior to the commencement of restoration, and shall set out details of:

    1) The soil samples collected from adjacent to the same sampling points after removal of the hardstanding and membrane. Any areas of soil showing discolouration or other signs of contamination below the membrane shall be sampled and tested as well.

    2) Comparison of the laboratory results for the pre and post phases.

The County Planning Authority shall be informed when the post decommissioning soil sampling is due to take place and shall be afforded the opportunity to inspect the ground surface before the site is restored.

Where the post decommissioning Soil Sampling Report shows some contamination impact, a scheme for the design and implementation of any remediation shall be submitted to the County Planning Authority for approval within one month of the submission of the report.

The final restoration of the site shall take place in accordance with the approved scheme.

Drainage

30. All areas where waste is to be stored, handled or transferred shall be underlain by impervious hard-standing with dedicated drainage to foul sewer or sealed tank.

Air Quality

31. The diesel generator and diesel water heater (and any other diesel plant) utilised on site shall be of low NOx/low emission specification in accordance with para. 6.3 of the submitted 'Air Quality Assessment' dated September 2016.

Soils

32. All topsoil and subsoil shall be permanently retained on the site for subsequent use in restoration. No soils or soil making material for use in the restoration shall be brought onto the site, unless required by an approved site remediation scheme.

Restoration

33. Within 6 months of the date of this decision a Landscape and Restoration Plan shall be submitted to the County Planning Authority for approval in writing. The Landscape and Restoration Plan shall include details of:

i. the excavation, storage and reinstatement of soils to ensure the survival of the of the existing seed bank;
ii. programme for the implementation of the restoration, monitoring and aftercare;
iii. provision for the enhancement of biodiversity focusing on native species and the results of the pre-commencement ecological surveys, whilst taking into account the use of the land for agricultural grassland and woodland;
iv. planting specification including details of species, planting sizes and proposed numbers/quantities/seed mix & application as appropriate;
v. the reinstatement of the access track.

The plan as approved shall be carried out in full.

All planting implemented pursuant to this permission shall be maintained in good, healthy condition and be protected from damage for five years from the completion of site restoration. During that period any trees or shrubs which die, or are severely damaged or diseased shall be replaced in the next available planting season with others of a similar size and species.

Aftercare

34. The restored land shall be brought to the required standard for agricultural and woodland use. The applicant shall notify the County Planning Authority when the planting or seeding has been completed and not more than one year after that date there shall be a meeting at the site which shall be attended by representatives of the applicant, the

owners or their successors in title and the County Planning Authority, to monitor the success of the aftercare. Should it prove necessary, further meetings will be held within the period of five years from the commencement of aftercare.

Reasons:

1. In order that the development should not prejudice highway safety nor cause inconvenience to other road users in accordance with Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC15 and Reigate & Banstead Borough Local Plan 2001 Policy Mo 5.

2. To ensure the minimum disturbance and avoid nuisance to the locality to comply with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

3. To ensure the minimum disturbance and avoid nuisance to the locality to comply with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

4. To ensure the minimum disturbance and avoid nuisance to the locality to comply with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

5. To ensure the design meets the technical stands for SuDS, does not increase flood risk on or off site and is suitable maintained throughout its lifetime in accordance with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

6. To ensure the Sustainable Drainage System is designed to the technical standards in accordance with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

7. In order to safeguard and protect species and habitats to accord with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14 and the Habitats Regulations 2010.

8. In the interests of local amenity and to comply with Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

9. For the avoidance of doubt and in the interests of proper planning.

10. To ensure that site operatives are conversant with the terms of the planning permission in the interests of the local environment and amenity to accord with Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

11. To comply with Section 91 of the Town and Country Planning Act 1990.

12. To enable the County Planning Authority to exercise planning control over the operation so as to minimise the impact on local amenity and to ensure the prompt and effective restoration to comply with Schedule 5 paragraph 1 of the Town and Country Planning Act 1990 and Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC17.

13. To enable the County Planning Authority to exercise planning control over the operation so as to minimise the impact on local amenity to accord with Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

14. To enable the County Planning Authority to exercise planning control over the operation so as to minimise the impact on local amenity to accord with Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policies MC3 and MC14.

15. To enable the County Planning Authority to exercise planning control over the development so as to safeguard the environment and protect the amenities of local residents in accordance with the terms of the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

16. To safeguard the environment and protect the amenities of the locality in accordance with the terms of the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policies MC3, MC12 and MC14: Reigate & Banstead Borough Local Plan 2001 Policy Co 1.

17. In order that the development should not prejudice highway safety nor cause inconvenience to other road users in accordance with Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC15 and Reigate & Banstead Borough Local Plan 2001 Policy Mo 5.

18. In order that the development should not prejudice highway safety nor cause inconvenience to other road users in accordance with Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC15 and Reigate & Banstead Borough Local Plan 2001 Policy Mo 6.

19. In order that the development should not prejudice highway safety nor cause inconvenience to other road users in accordance with Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC15 and Reigate & Banstead Borough Local Plan 2001 Policy Mo 5.

20. To secure the restoration of the site and assist in absorbing the site back into the local landscape in accordance with Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policies MC3, MC15 and MC17 and Reigate & Banstead Borough Local Plan 2001 Policy Co 1.

21. To ensure the minimum disturbance and avoid nuisance to the locality to comply with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

22. To ensure the minimum disturbance and avoid nuisance to the locality to comply with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

23. To ensure the minimum disturbance and avoid nuisance to the locality to comply with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

24. To ensure the minimum disturbance and avoid nuisance to the locality to comply with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

25. To ensure that breeding birds are not disturbed by the removal of habitat, to comply with Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

26. To comply with the requirements of the Habitat Regulations 2010 and to protect species of conservation concern in accordance with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

27. To comply with the requirements of the Habitat Regulations 2010 and to protect species of conservation concern in accordance with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

28. Permanently illuminated obstacle lighting are required on the development to avoid endangering the safe movement of aircraft and the operation of Gatwick Airport.

29. To demonstrate that there has been no long term contamination of the near surface natural soils at the site as a result of the development and to ensure the site can be suitably restored in accordance with the terms of Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policies MC12 and MC14.

30. To prevent pollution of the water environment to comply with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

31. To ensure the minimum disturbance and to avoid nuisance to the locality to comply with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC14.

32. To prevent loss or damage of soil and to ensure that the land is restored to a condition capable of beneficial afteruse to comply with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policies MC14 and MC17.

33. To secure restoration and assist in absorbing the site back into the local landscape as soon as practical to accord with the Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policies MC3, MC14 and MC17; and Reigate & Banstead Borough Local Plan 2001 Policy Co 1.

34. To secure restoration to the required standard and assist in absorbing the site back into the local landscape in compliance with Schedule 5 paragraph 2 of the Town and County Planning Act 1990 and Surrey Minerals Plan Core Strategy Development Plan Document 2011 Policy MC17.

Informatives:

1. The applicant's attention is drawn to the Environment Agency's letter dated 26 Jan 2011 (attached) which provides advice relating to impacts on groundwater quality, pollution prevention, waste handling and hazardous waste, water quality advice, consents and permits and site waste management plans.

2. The applicant's attention is drawn to Gatwick Airport Limited's letter dated 13 January 2011 (attached) in relation to the requirements set out within the British Standard Code of Practice for the Safe Use of Cranes.

3. All alterations, piping or culverting, whether temporary or permanent, of any Land Drainage Ditch/Ordinary Watercourse will require prior written consent, under the Land Drainage Act 1991, from the Local Land Drainage Authority. Land Drainage Application Forms can be obtained from Reigate and Banstead's Land Drainage Engineer on 01737 276606. Land Drainage Applications are separate from any requirements under the Town and Country Planning Act, and could be refused.

4. Where it is proposed to connect to a combined public sewer, the site drainage should be separate and combined at the final manhole nearest the boundary. Connections are not permitted for the removal of groundwater. Where the developer proposes to discharge to a public sewer, prior approval from Thames Water Developer Services will be required. They can be contacted on 0845 850 2777.

5. Notwithstanding any permission granted under the Planning Acts, no signs, devices or other apparatus may be erected within the limits of the highway without the express approval of the Highway Authority. It is not the policy of the Highway Authority to approve the erection of signs or other devices of a non-statutory nature within the limits of the highway.

6. The permission hereby granted shall not be construed as authority to obstruct the public highway by the erection of scaffolding, hoarding or any other device or apparatus for

which a licence must be sought from the Highway Authority Local Transportation Service.

7. The permission hereby granted shall not be construed as authority to carry out works on the highway. The applicant is advised that a licence must be obtained from the Highway Authority Local Transportation Service before any works are carried out on any footway, footpath, carriageway, verge or other land forming part of the highway.

8. The developer is reminded that it is an offence to allow materials to be carried from the site and deposited on or damage the highway from uncleaned wheels or badly loaded vehicles or in any other way. The Highway Authority will seek, wherever possible, to recover any expenses incurred in clearing, cleaning or repairing highway surfaces and prosecutes persistent offenders. (Highways Act 1980 Sections 131, 148, 149).

9. The proposed works are in close proximity to a high-pressure petroleum pipeline. The applicant's attention is drawn to the comments and requirements of the British Pipeline Agency (BPA) within their email dated 22 December 2016 and attachments, copies of which have been provided to the applicant or can be obtained from the County Planning Authority.

10. Section 59 of the Highways Act permits the Highway Authority to charge developers for damage caused by excessive weight and movements of vehicles to and from a site. The Highway Authority will pass on the cost of any excess repairs compared to normal maintenance costs to the applicant/organisation responsible for the damage.

11. The applicant's attention is drawn to the comments and requirements of Surrey Fire and Rescue Service within their email dated 22 June 2017, copies of which have been provided to the applicant or can be obtained from the County Planning Authority.

12. The site operator is advised to collaborate with the local Reigate and Banstead Borough Environmental Health for compliance with local air quality monitoring, in addition to any statutory requirements from the Environment Agency.

13. The Site operator should endeavour to point out to HGV drivers travelling to the site via the southbound carriageway of the A217 that the Hookwood roundabout should be considered as a means to gain access to Horse Hill as an alternative route to crossing the northbound carriageway at the A217/Horse Hill junction.

14. Attention is drawn to the requirements of Sections 7 and 8A of the Chronically Sick and Disabled Persons Act 1970 and to the Code of Practice for Access of the Disabled to Buildings (British Standards Institution Code of Practice BS 5810: 1979) or any prescribed document replacing that code.

CONTACT
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BACKGROUND PAPERS
The deposited application documents and plans, including those amending or clarifying the proposal, responses to consultations and representations received as referred to in the report and included in the application file and the following:

Government Guidance
National Planning Policy Framework 2012 (as amended)
Planning Practice Guidance 2014 (as amended)

The Development Plan
Surrey Minerals Plan Core Strategy Development Plan Document (DPD) 2011
Reigate and Banstead Local Plan Part 1 Core Strategy July 2014
Reigate and Banstead Borough Local Plan 2005 (saved policies)

Other Documents
- The application documents and plans, including those amending or clarifying the proposal included in the application file, 9 November 2011 committee report and planning permission ref RE10/2089 dated 16 January 2012
- Annual Energy Statement Department for Energy and Climate Change (DECC) 2010
- Annual Energy Statement DECC 2013
- Annual Energy Statement DECC 2014
- Energy White Paper 'Meeting the Energy Challenge' 2007 Department of Trade and Industry (DfT) (2007 Energy White Paper)
- Energy Security Strategy the White Paper 2012
- UK Government The Carbon Plan: Delivering our low carbon future' December 2011
- Low Carbon Transition Plan: the national strategy for climate and energy 2009 DECC
- UK Renewable Energy Roadmap DECC July 2011
- Energy Security Strategy 2012 Department for Energy and Climate Change (DECC) November 2012
- Department for Business, Energy and Industrial Strategy (BEIS) Digest of UK Energy Statistics July 2017 (Digest 2017)
- Department for Business, Energy and Industrial Strategy (BEIS) Digest of UK Energy Statistics Digest 2013
- UK Energy in Brief 2017
- Mineral Planning Factsheet 2011 (Onshore Oil and Gas) Department for Communities and Local Government (DCLG) and British Geological Society (BGS)
- Reigate and Banstead Local Plan Part 2 Development Management Regulation 18 Consultation document August 2016
- Guidelines for Landscape and Visual Impact Assessment Third Edition 2013 Landscape Institute and Institute of Environmental Management and Awareness (IEMA)
- Surrey Landscape Character Assessment (2015)
- Department for Communities and Local Government Circular 06/2005 Biodiversity and Geological Conservation- Statutory Obligations
- Surrey County Council Guidelines for Noise control - minerals and waste development (1994)
- The Design Manual for Roads and Bridges' volume 11
- Guidance Notes by the Institution of Lighting Professionals for the reduction of obtrusive light (2011)
- UK National Air Quality Strategy (Defra, 2007)
- EPUK/IAQM Land Use Planning and Development Control: Planning for Air Quality 2017
- Institute of Air Quality Management (IAQM): Guidance on the assessment of dust from demolition and construction 2014
- BS5837:2012 *'Trees in Relation to Design, Demolition and Construction'*
- Bat Conservation Trust's Good Practice Guidelines for Bat Surveys
- The Natural Environment and Rural Communities (NERC) Act (2006)
- BS5228-1:2009 Code of practice for noise and vibration control on construction and open sites – Part 1:Noise
- BS 5228-1:2009+A1:2014 'Code of practice for noise and vibration control on construction and open sites – Part 1: Noise
- UK Offshore Installations and Wells (Design and Construction, Etc) Regulations 1996 (SI 1996 No.913)
- Borehole Site and Operation Regulations 1995 (SI 1995 No.2038)
- Environmental Permitting (England and Wales) Regulations 2016 (SI 2016 No.1154)

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