

The Potting Barn
No.5 Hobbs Court
Bilsham Rd.
Yapton
West Sussex BN18 0JY

June 1st 2025

**Planning Reference Y/32/25/PL Redrow Homes Ltd.
Application for 170 dwellings for Land West of Bilsham Rd.
Yapton BN18 OLA**

Further Objections to Y/32/25/PL (4)

‘LEAP’ Geotechnical Report April 18th 2023 and in Association

1. LEAP Executive Summary

a) Refers to a study undertaken by them for Boklok, under ref. Y/52/23/PL, the same site as for Redrow now under Y/32/25/PL. LEAP stated the postcode as BN18 OFN instead of BN18 OLA, but details submitted confirm that it is the same site.

b) As Redrow have not allegedly included previous or an updated report version by LEAP, since 2023, it is referred to now. Odyssey also ‘refer’ to LEAP in passing, in their presentation the Redrow application now.

c) The Odyssey reports for Boklok, were undertaken in **Oct. 2024, 7th-11th** (not November 2024, as quoted in the Odyssey report submitted for the Redrow application), regarding ‘FRA and Drainage Strategy’ submitted on 24/5/2025.

d) The Odyssey report refers to water level testing in a very limited time-frame as above. It excluded accumulative water table levels over the winter months, and was not tested again in Spring, which allegedly gave a skewed view in outcome.

e) By contrast, the testing in the LEAP Geotechnical Report was over 7 months, which allegedly gave a more comprehensive detailing of the water levels and testing on the site, and how this would relate to any difficulties in outcome for the future.

f) Allegedly also in contrast to the Odyssey report, part of the LEAP Executive Summary, stated as follows:

‘The desk study has identified geotechnical risks on site including shrinkable soils, compressible ground, high water table, frost susceptible soils, ground dissolutions and natural cavities’.

g) Onsite investigation results appear later in their report, but the Executive Summary refers to water levels of *1m.blg. This allegedly indicated that assessments were undertaken at a time of year when the levels were likely to be higher. * Below ground level.

2.Environmental Setting, Flooding

a) **7.5.** Details supplied in the LEAP desktop survey report, refer to 1 in 30, and 1 in 100 year percentages for possible flooding to the site.

b) However, the survey also confirmed, *‘There are areas mapped as moderate to high and high risk of groundwater flooding. The highest risk area is in the southern half of the site and along the Western boundary’.* (The area of the Rife).

c) Such a statement allegedly confirmed that any potential flooding would also be likely to include the region of the attenuated basin and the water pump on the site.

3. Potential Sources of Contamination as Reported Under 10.1,10.2 and 10.3

a) **10.1.** Pesticides, heavy metals indicated, ((potential for cancer outcomes)).

b) **10.2.and 10.3.** Details of potential contaminants were advised as being in Appendix E, but appendices appear to cease after Appendix C, so the former was unable to be reviewed at this time.

c) **10.4.1.** Advised that that adverse contact through the soil or ref. vegetables is considered plausible, also acknowledged that because of farmland, pesticides and heavy metals and PAHs are likely to be present but considered to be low. Without Appendix E it was impossible to confirm.

d) Controlled Waters

10.4.3. *'The site is underlain by a Secondary A aquifer. River Terrace Deposits over a Principal aquifer (Lewes Nodular Chalk) although the site is not within a SPZ. From previous investigations the groundwater levels are anticipated to be shallow (between 0.5 and 3.75m blg. Should groundwater be contaminated on site, it is likely that it will flow through the granular soils, the River Terrace deposits underlying the site'.*

e) Any digging during on site build, is allegedly likely to be below 0.5m. The attenuated basin is of greater depth, and similarly for any pipework or culvert. Because of this, it is questioned as to how any contamination to the aquifer resource is to be avoided during the build process.

f) Geotechnical Risk Register

11.2. Table 5, outlined the following Geotechnical Hazards

Shrinkable soils..... Substantial
Compressible ground..... Significant
High Groundwater Table..... Significant
Frost perceptible soils..... Significant
Ground dissolution and natural cavities.....Significant

g) 'River deposits may be susceptible to volume change within the clays. The chalk bedrock may contain solution features which may cause settlement. River Terrace deposits containing silt can make the near surface deposits susceptible to frost requiring an additional capping layer to roads'.

h) There is no indication as to how this may conflict with the permeable layer advised for the site roads and pavements.

i) Groundwater Strikes, Table 10, Recorded from 21 boreholes covering a period from 14/10/22/-27/10/2023

15.1.1. It is apparent from the results that not only are there significant levels of high- water table measurements, but also reportage of 'rise' after 5 or 20 mins. in the majority of boreholes, and 'seepage' in the others.

j) Although the boreholes were to depths between 2-8m, the results for Table 11, indicated that the initial depths of water level found was below just below 1m blg.

k) As mentioned in objection previously, where is the existing water to go in displacement, caused by the development itself?

5. Geotechnical Appraisal Swelling and Shrinkage .

a) **18.1.** In relation to NHBC build insurance requirements, the soil types were stated as ranging from Low to High, so Medium was recommended to state for clay soils.

b) **Interestingly, alternative advice stated that the NHBC do not routinely issue certificates where a high- water table is present.**

c) If so, that may allegedly place a difficulty on both the construction and marketing delivery of the site, as the NHBC are indicated to be involved in decision-making, before a site commences, if planning approval is given.

d) **18.3.** Advised that LEAP monitoring was over a period of 7 months including the winter. *‘Due to the high- water levels on the site it was agreed with the Drainage Engineers local planning authority that soakaways would not be appropriate for the site’ ((infiltration units)). High groundwater levels may also restrict foundation types in some areas due to dewatering requirements or instability hazards induced by groundwater ‘*

e) **Bearing Capacity**

18.4. This section illustrated the types of possible foundations to accommodate the various soils on the site, and in remediation of ‘hazards’.

f) **18.4.1.** 3 types of foundations were mentioned as possibilities: Shallow Foundations, Piling, and Slabs.

g) Shallow foundations efficacy appeared to relate to depth and width in relation to load and height, and allegedly as only suitable in relation to recognised bearing pressure of soils in each build location.

h) Piling, was apparently ruled out due to proximity housing and because of vibration both to them and during other construction.

i) Floor Slabs were recommended according to NHBC standard 5.2., 4.2 was referenced in relation to the proximity of trees.

j) The LEAP report does not allegedly refer to **NHBC 4.1**, which related specifically to ‘Land Quality, Managing Ground Conditions’. That section advised, ‘*That slabs were not recommended for areas of flooding, ground movement, and contamination*’.

k) It appears from the LEAP report investigations, that no specific foundations are ‘recommended’ for the site. Automatic acceptance of geotechnical conditions by the NHBC, would not appear to be a fait accompli.

l) **Swallow Holes**

18.11. *The site is situated in an area of high risk of solution features. Swallow holes are usually activated by water ingress as has been evident with the increase in frequency of their occurrence over the winter of 2013/14, the wettest in recorded history. The appearance of swallow holes should not be underestimated. **It is essential that all efforts to minimise surface water migration into the ground are adhered to***

m) **Geotechnical Recommendations**

19. Probing of plot locations, to determine whether foundations of 2m blg of piles are suitable on site.

‘Recommendations are given for additional work for the design stage. Allowance should be made for each plot location to determine whether strip foundations or piling may be suitable’.

n) **Evaluation of Potential Risks to Residents (soils and contamination)**

21.2. The list included the following factors:

Arsenic, Cadmium, Chromium, Chromium Hexavalent, Copper, Lead, Mercury, Nickel, Selenium, and Zinc.

The right-hand column advised that there were no 'exceedances'.

Scientists maintain, that the *accumulative* nature of all 'risk' substances can also have adverse effects even if singly they are not above 'safe levels'.

6. Conclusion to the Above

a) Any alleged adverse outcomes regarding water drainage, sewerage, flooding and soil instability on any site, are not allegedly recommendations for ease in development build, long term housing stability, obtaining household insurance, mortgages, or promoting successful house sales.

b) If any of such cautions against development are known in advance but ignored, and materialise detrimentally after purchase, this could result in cases of miss-selling, especially if any adverse details, were not made known in a TA6.

c) It is allegedly apparent from the LEAP report and attendant matters, that there are many geotechnical concerns as yet unresolved for the proposed site, with no certainty that they can be. Until or unless they are, my objection remains, and as indicated in this response.

Yours sincerely,







Dilys Lownsborough

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From: Simon Davis <Simon.Davis@arun.gov.uk>
Sent: 02 June 2025 17:15
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Subject: FW: resent incorrect details Lownsborough for Y/32/25/PL planning app ref LEAP objection details.

Objection

From: [REDACTED]
Sent: 01 June 2025 18:01
To: Simon Davis <Simon.Davis@arun.gov.uk>
Subject: resent incorrect details Lownsborough for Y/32/25/PL planning app ref LEAP objection details.

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Dear Mr. Davis,

My apologies,

The details sent just a while ago were for an objection you had already received.

The enclosed attachment is of today's date June 1st. It is an additional objection ref LEAP report, the 4th, 5 in total.

Again apologies

Kind Regards,

Dilys Lownsborough