



# WELWYN GARDEN CITY SOCIETY

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c/o 47 Elmwood  
Welwyn Garden City AL8 6LD

3 November 2019

Colin Haigh  
Head of Planning  
Welwyn Hatfield Borough Council  
The Campus  
Welwyn Garden City  
AL8 6AE

Dear Colin

**Welwyn/Hatfield Local Plan Examination  
Birchall Garden Suburb – public health concerns**

Thank you for your letter dated 31 October 2019.

We do not agree with your conclusion that sufficient evidence has been gathered in order to be reassured that the Birchall Garden Suburb is a safe area on which housing development should be allowed. This Society has raised a series of specific issues that, as far as we can tell, have not been addressed either by the Borough, the tiered approach you have adopted or by consultants acting on your behalf.

We have therefore reviewed our submissions and your earlier responses and detail the questions that are in our view still outstanding. We will submit this letter to the Inspector since we believe these questions need addressing before anyone could determine if this site is safe for future housing and by implication appropriate for inclusion in the draft local plan.

In our letter to you dated 4 October 2018, we drew your attention to the following:

1. You indicated that you had received contaminated land reports from the developers that were satisfactory. We pointed out that this was not the case. Various reports have been published but none tell us what lies beneath the surface in the main landfill mass. We think that this would be an essential element of any report that claims to be a contaminated land report on this site.

The fact is that the main mass of the landfill area has not been examined beyond the first metre or so of ground which your consultant's report confirms. Even EX 159 does not address this. Such an examination would only touch upon materials that had only been placed in the tip in its very later years when environmental standards had not only been introduced but were being implemented. In earlier years, these standards did not exist, so for the preceding 50 years or so, all types of contaminants were dropped into the landfill of which you are unaware. For this reason, we do not consider this work to be anywhere near robust enough to form an opinion.

2. Again, we drew your attention to the fact that the Environment Agency had not been able to deal with your concerns due to the latter's lack of resources. However, we believe that you are still responsible for ensuring that the land destined to go into the Local Plan should be safe for housebuilding. You have not responded on this.
3. We drew your attention to the issue of low birth weights associated with children born to residents living close to landfill tips. You have made no response.
4. We reported that we have been informed that in the past, residents of roads in the vicinity of the landfill were requested not to eat vegetables grown in their gardens. You have not provided any explanation.
5. We highlighted that we have been informed that children living close to the landfill were subject to additional medical examinations for unspecified reasons while at school. Again, no explanation has been forthcoming.

Each of these points are ones which ordinary residents in the Borough would expect their Borough Council to give full and complete answers. In the absence of the latter, you will never have the informed consent of the residents towards this development moving forward.

You have referred us to EX70, EX106 - EX153 and EX159 whose summaries you have quoted from extensively. However, in none of these reports can we find reference to points 1 to 5 above and for that reason we do not think you can assume that the subject matters we have raised have been dealt with properly or even at all. Certainly you cannot simply ignore them. As a result, your reference to these summaries is, we suggest, inappropriate. Accordingly, we think these matters are still outstanding and we will seek to draw them to the attention of the Planning Inspector as we believe them to be material at this stage of the planning process.

We went on to raise the following aspects:

6. The landfill area appeared to be very active below the surface based on some of the gas monitoring data provided previously, showing elevated levels of methane, and the fact there had been ongoing gas venting direct to the atmosphere since about 1990.
7. We felt that the monitoring of the gas venting from the landfill area was inadequate. We note that there has since been further, albeit limited, ground gas monitoring data provided since then. However, our analysis of that newest data appears to us to show:
  - a. Borehole TBH01 (beside the current waste tip) monitored only from 14 May 2018 to 18 June 2018, (five weeks): 94 readings over 60% methane, 354 readings in total. Oxygen levels are recorded to be almost 0% when methane is recorded at its highest levels.

- b. Borehole CGBH18 (on the ridge beside the right of way): monitored between 24 July 2017 and 3 April 18. Elevated methane, figures up to 16% in the third quarter of 2017.
  
- c. Borehole BHIL01 (In the middle of the field where current air vents are) In December 2016 data showed methane at 39%. The newer report, document EX123B, showed that between 5th April and 17th May 2018, 435 sample readings were taken where the average Methane reading was 33%. It also reports that 157 readings were taken revealing a Methane contingent of 70% or more.

Our Society has no expertise on these matters but it's clear that more investigation is required to understand the full extent of the risk that this data appears to uncover. Methane is also recognised as an important Greenhouse Gas, accordingly there is increasing impetus to prevent its leakage into the atmosphere. It is recognised that landfill sites are a major source of methane emissions internationally and that this requires increasingly sophisticated amelioration.

We are aware of a document by the National Home Building Council titled "NHBC GUIDANCE ON METHANE AND CARBON DIOXIDE" (Appendix 2). This includes the following statements which appear very relevant to the above data readings:

This includes the following statements which appear very relevant to the above data readings:

Page 5: *"It is well known that the presence of methane gas can be highly hazardous to human health. However, the fact that methane is a colourless, odourless gas means that there is no simple indicator of its presence until such a time as explosive limits are reached and an incident occurs. For this reason, it is vital that sources of methane are identified prior to any work on a construction site commencing, and that measures are put in place to prevent a dangerous build-up of gas within buildings."*

Page 6: *"Although methane is considered to be of low toxicity, its capability to displace oxygen means that at high enough concentrations it becomes an asphyxiant. Oxygen starvation occurs at 33%v/v methane, whilst at 75%v/v methane death results after 10 minutes."*

Page 7: *"Effects on Vegetation: Vegetation dieback has been correlated with the presence of ground gases. This is thought to be a result of carbon dioxide causing toxic reactions in the roots, whilst oxygen deficiency caused by the presence of methane and/or carbon dioxide can occur"*. Note: that vegetation on parts of this site does not appear to be thriving; much of the area remains low scrub, even after several decades have elapsed.

Page 8: *"Methane can be transported as a dissolved product in groundwater (although solubility is very low), as well as moving through the subsurface in gaseous form"*.

Page 9: *"Methane is the principal constituent of landfill gas, often having a concentration of up to 65%v/v, alongside carbon dioxide at concentrations up to 35%v/v. Trace amounts of carbon monoxide, mercaptans, volatile aromatic compounds, hydrogen sulphide, organosulphur compounds and esters will generally also be present, potentially along with numerous other compounds"*.

Page 10: *"Leachate from landfill sites may also contain dissolved gases or may degrade during migration to produce methane with carbon dioxide and associated gases"*.

Page 36: *“Bearing in mind the potential temporal variables, as a minimum, the NHBC should be requiring six ground gas-monitoring rounds over a three-month period. In many cases, however, substantially longer periods of ground gas monitoring could be required to enable the effects of the worst temporal conditions to be defined. However, extended periods of monitoring (and possibly the installation of additional gas monitoring wells) for sites that consistently record high or variable concentrations may be necessary to determine the nature of the soil gases and/or vapours regime”.*

F3 Appendix F: *“When the concentration of methane in air is between the limits of 5.0%v/v and 15.0%v/v, an explosive mixture is formed with normal concentrations of oxygen. The Lower Explosive Limit (LEL) of methane is 5.0%v/v, which is equivalent to 100% LEL. The 15.0%v/v limit is known as the Upper Explosive Limit (UEL), but concentrations above this level cannot be assumed to represent safe concentrations”.*

From the point of view of an ordinary resident, all of the above is very concerning. The Borough Council ought to have a full understanding of the potential risks of ground gas contamination before any decision is made to include it as a site for major development. We do not get the impression that it does, as the reports so far presented are far from conclusive and raise yet more questions that need answering.

8. The inadequacy of the capping of the landfill area.

We remain concerned that the Council has not thought fit to review the top of the landfill area to ensure that the paucity of the capping in places is sufficient whether any proposed development goes forward or not.

Cancer cluster

We have noted what you have said. Specifically, you have said that the Director of Public Health has stated that cancer deaths in Welwyn Hatfield are within the national average, giving no cause for thinking there may be a cancer cluster in this locality and that there is no basis for any investigation.

That is not a true reflection of what the Director of Public Health has stated in his letter of 9 October last. I append a copy. Whilst he has said that cancer is “unfortunately very common”, that cancer deaths in the area are in line with national rates and that his department has not seen any evidence of cancer clusters here, he does go on to invite us to submit the evidence we have accumulated to review if the matter should be referred to the national cancer cluster investigation service.

The situation now is that we have forwarded our findings to Professor McManus so that his team can review it.

Finally, the Director of Public Health said the matter is for him to consider and that it would be inappropriate for the Borough Council to commission an independent study.

We have also invited the Planning Inspector to seek such information from the Director of Public Health as he may require validation of what we are setting out in this and our earlier letter.

In the meantime, we would point out the obvious. If our research is found to be sound, then all the work that has so far been done to confirm there is no risk to human health from the Birchall Garden Suburb site must be regarded as questionable.

## Policies

Again, we have noted how you are seeking to move forward with this site through the use of policies. As we made clear in our last letter under reply, we think that you should first identify the risks you are dealing with, then seek to estimate the remedial costs that would be involved before you can even consider this site as suitable for housing. Your policies should follow this direct approach in our opinion. Depending on the contaminants that are involved (of which you have no idea about but which you have received evidence about in the form of unregulated bulk discharges from railways wagons and lorries from any number of centres, industrial plants and laboratories over a seventy year period), so the remedial costs will vary.

We have noted your consultant's view why the developer has taken an approach that somehow expects greater spending on validating the site once the site is declared suitable for housing when its valuation is expected to be higher. However, this does seem to fly in the face of common sense and business practice: if there was a site that was potentially suitable for housing, we would think any owner would wish to minimise the risk of failure to maximise its potential value by validating its safety as soon as possible. This would avoid all the costs now being incurred and the planning costs that will be incurred if the approach turns out to be a wild goose chase.

In addition, the Director of Public Health may well consider that there is sufficient evidence for the matter to be further investigated. If that is the case, we would think it might take years for the outcome of any significant investigation to be completed. We would think this to be well outside the period in which this Local Plan is due to be completed.

Our opinion now is that you are seeking to include a site in your total for Local Plan purposes which is unlikely ever to be developed in the future as, in our opinion, the obstacles to this happening are now increasingly stacking up against it.

Despite the action plan we advocated in our previous letter, we are fast coming to the conclusion that it would be wiser for the Borough Council to abandon this site in its entirety and look elsewhere for the housing numbers it is seeking. It looks as if you are seeking to continue pushing water uphill and it is likely to be a waste of Council Taxpayers' money.

There remains a huge knowledge gap in terms of the full contamination risk that may be present on the site. Almost all the site has been fenced off and left dormant by the landowners since 1990. Have your team stopped to consider why that might be? You may also have noticed how that despite being left unmanaged for almost 30 years, much of the former landfill area remains only low scrubland rather than a far more advanced rewilding that you might have expected to see by now.

This Society will always put the best interests of Welwyn Garden City and its residents first. The town has been known as a "Town Designed for Healthy Living" for generations and we fail to understand how the current administration can claim that this large edge of town development beside a landfill site, but nonetheless on Green Belt land, can possibly be promoted as a healthy and safe scheme.

Yours sincerely  
for Welwyn Garden City Society

J S O'Reilly