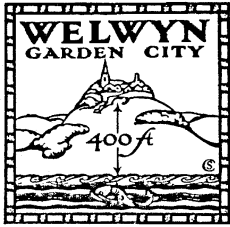


APPENDIX AA1

Note to the Inspectors re **Appendix AA1**

In the hard copy of this submission to the Inspectors for their joint hearing on 30 January 2018, we have not reduced any recordings made by the Society and referred to in **Appendix AA1** to paper on the grounds that our interpretation of what is being said may be open to challenge.

In the same hard copy of the submission to the Inspectors, the DEFRA document headed “Potential Health Effects of Contaminants in Soil”, referred to in section 5 of **Appendix AA1**, we have taken the liberty of including the relevant text we refer to rather than including the entire document as it is long. The whole document will be supplied in paper form if that is necessary. The relevant text is appended between page 4 and 5 of **Appendix AA1** in the hard copy version only. The whole of the paragraph we refer to is included though the reference is to be found in the last sentence. In the case of the electronic version, access to the relevant paragraph is by clicking at the relevant point.



WELWYN GARDEN CITY SOCIETY

www.wgcsoc.org.uk

77 Hardings
Welwyn Garden City
AL7 2HA

25th October 2017

Dear Sirs

Birchall Garden Suburb as proposed in the Draft Local Plan

1. Introduction

We have already published two versions of a paper called “What lies beneath?”, and third version is in the pipeline. Each one has been updated as further information became available on the work we have done in relation to this site already. This letter is further evidence we have gleaned from sources open to us.

We have also submitted our views to the effect that the site is inappropriate for development as regards the Garden City and no doubt the Inspector will consider our earlier submission on these planning issues along with the many other submissions made.

This letter contains many appendices supporting the research we are submitting to you. These are contained in a separate file and can be viewed online at: <http://wgcsoc.org.uk/appendices>

2. Executive summary

We refer to the Draft Local Plan and in particular to the proposed development on this site and to some of the evidence that has been presented to you suggesting that this location is a safe one to place future housing, subject to appropriate remedial work to safeguard human health.

Our research suggests that the council has been presented with information that is incorrect which, in our view, should have been identified early in the planning process. We go on to say the site should never have been included as one that is appropriate for housing.

Central government now accepts there is an increased risk of low birth weight deliveries to mothers living close to landfill sites. We cite the reference where this is to be found. For these health reasons alone and, as central government has signed up to the “Precautionary Principle”, we believe that this development

should be withdrawn from the Draft Local Plan.

Evidence supplied to the Council makes the claim that housing is to be built on “virgin land”. We dispute that; and suggest that much of the developer’s supporting evidence supports our point of view. We now refer to copies of planning submissions, approvals given, work specifications, relevant maps, aerial photographs and testimony from local residents that suggest the consultant’s reports for the developer is incorrect as regards their claim.

Key reports submitted to the Council as to the safety of the site are deeply flawed, are inadequate and, by their own admission, are partly incomplete. They fail to identify both one authorised tip and another that was unauthorised. They fail to give any explanation how come a large area marked “Filled area 250m buffer 45.0ha” on their own map is reconcilable against their claim to be building on “virgin” land.

The areas that we believe have been excavated for sand include areas that fall within the East Herts District Council.

There are indications that the capping of the main landfill site is inadequate and likely to be incomplete. Should further capping be required as the Environmental Agency (EA) touches on, then the leachate and gas flows are likely to alter - requiring a lot more data collection over time before coming to any conclusion as to the safety of the site. We attach the letter from the EA that sets this out.

The developer will have to take into account very many more issues to satisfy the EA before the site could be used for housing. The assumptions made for this development up to now are therefore likely to be wrong; they will alter the financial basis of the entire development and the length of time it would require to bring the site to a starting point for building. Its development on any timescale that fits with the Draft Local Plan is likely to be incorrect.

All this points towards suggesting that the Council should never have included this site amongst those put forward for future housing development in the Local Plan for this borough and now before the Planning Inspector.

3. Key reports submitted by the developer, Tarmac

Three reports have been submitted by Tarmac in relation to this proposed development. They are dealt with in greater detail later in this letter.

At the Cabinet Housing and Planning meeting held on 9 February 2017, it was stated as a fact that no housing would be placed on any contaminated land and that this was sufficient reason to continue to include this proposed development in the plan. We believe this to be incorrect. It is not the location of the housing that matters but whether a risk to human health is posed, including such matters as whether water beneath the locations is likely to be affected from the contamination that lies within the landfill site. Further, we think that the bulk of the proposed housing is in fact to be located on land than is “not virgin” as is claimed in the technical reports submitted to you and this letter sets out the evidence we have found to that effect.

It has been unclear how the duties and responsibilities of the Environment Agency (EA) and Environmental

Health at WHBC dovetail in order to protect human health, and unclear from WHBC's own plan submission and supporting documentation where this is captured and described in sufficient detail in the proposed plan. Indeed, this is confirmed in an email from the Environmental Officer dated 7 August 2017 (see Appendix A), who states, *inter alia*:

“In respect to surface water - although the attached letter from the Environmental Agency (Appendix B) refers to pollution control matters in respect to surface water contamination, the EA have now stated that it only extends to the impact on ground water. Surface water contamination in itself will remain a contaminated land issue (albeit as a water structure). This is only something which I have become aware of today.”

4. Making information available to the public

We believe that none of the three Royal Haskoning key reports submitted by Tarmac in relation to this site were posted to your web site as part of the evidence presented to the Council, although it is noted that councillors and the public have been told that they were by your officers in council meetings this year.

The statement that these reports should have been on the Council's web site as part of the submission statements is to be found in the recording below (at around 12.15 minutes) and is made by an official at a Cabinet Housing and Planning Panel meeting held on 9 February last and legally recorded by us, it can be found here: [http://wgcsoc.org.uk/appendices/090217 Council Meeting.mp3](http://wgcsoc.org.uk/appendices/090217_Council_Meeting.mp3)

In addition, the same officer repeated the statement to the Inspector and all those present at the first hearing on 21 September. Again she said the reports had been placed on the council's website, and so were shared. This can be viewed in part 2 of the Council's recording from the 21st, available 3hrs and 57mins into the recording here:

<http://welwyn.nucast.live/2109172>

Despite these statements, we were still unable to find these reports on your web site, although they have appeared in the recently available Evidence Library for the Inspector. They were not made available as a supporting document for any of the Local Plan consultations, or at any of the Local Plan exhibitions, including those held by Tarmac, as far as we can see. It was for this reason that we had to contact the Programme Officer to find out what had been presented to the Inspector, as these documents had not been made available online up until these hearings. Even today they cannot be located using the search function on the WHBC web site. Consequently, the general public is unaware of them.

The Programme Officer has now stated “I can confirm that the three documents you have mentioned are examination library documents (under the environment section) and were included in the library documents when the plan was submitted for examination.”

Effectively this approach results in the information being unavailable to the public until it is submitted to the Inspector. This is wrong and your administrative systems should be improved to ensure that this does not happen. It is nevertheless a material omission as the public cannot be aware of what they actually say, and we suspect that many councillors representing residents are not aware either.

5. The health risks to humans from living close by landfills

We contend that inadequate attention has generally been given to the dangers to human health with regard to this site and, in particular to the increasing information now becoming available as a result of recent studies.

There is now evidence that risks of low birth weights are associated with landfill sites. A document published by DEFRA and headed “Potential Health Effects of Contaminants in Soil” and referenced SP 1002 states in paragraph 4.3.2 of their Appendix 1 “Literature thus provides an overall good weight of evidence supporting a link between low birth weight and residence in the proximity of landfill sites”. This is part of a larger document to be found on the internet here:

http://sciencesearch.defra.gov.uk/Document.aspx?Document=SP1002_9618_FRA.pdf

There is no evidence that WHBC has adopted a stringent risk-based approach when ascertaining the level of risk that contamination on the site may pose. We believe there is uncertainty about the probability of the risk and the degree of harm that could arise from the proposed development on or adjacent to this site. We wonder whether the “Precautionary Principle” has been given any weight at all by the developer or the council.

We take the view that as yet many of the effects of living close to former landfills are still unknown as so much of the worst of the contaminants are still very new (ie, plastics) and their effects will take some time to leach out and then to be assessed in a statistically meaningful manner. That is likely to become clearer as more and more research is undertaken.

On 20 June 2017, the BBC Radio 4 programme “File on 4” featured an investigative documentary titled “What Lies Beneath: The legacy of landfill”. Much of the findings and reportage bore a striking similarity to the concerns we have expressed over contamination on the site in question. The documentary host went on to state that at one point the “The Chartered Institute of Environmental Health had accused government of facilitating development at the expense of health protection, and in evidence to Parliament, they warned that land remediated through development may not always leave the site entirely safe.”

The programme also contained a statement from DEFRA: “The Government is committed to the clean-up of contaminated land. Our revised Statutory Guidance means more resource can be directed to those sites most in need, and allows local authorities to take a more stringent, risk-based approach when identifying and cleaning up contaminated land.”

The programme contained many other concerning statements, some of which may be applied to some of the Birchall Garden Suburb site. A transcript of the programme is supplied as appendix X.

The UK Government is signed up to the Precautionary Principle as agreed in Agenda 21 at the Rio summit in 1992; DEFRA and other departments routinely cite it. The following description of it is taken from the defra.gov.uk web site: “The Precautionary Principle is one of the key elements for policy decisions concerning environmental protection and management. It is applied in the circumstances where there are reasonable grounds for concern that an activity is, or could, cause harm but where there is uncertainty about the probability of the risk and the degree of harm.” (This can be found on the internet at <http://jncc.defra.gov.uk/default.aspx?page=2519>.)

We believe that for health, and in respect of the “Precautionary Principle” reasons alone, the site should be withdrawn from the Local Plan now.

6. The three Royal Haskoning reports

Note that these reports are henceforward referred to as Reports 1, 2 or 3 in this letter and are as follows:

Cole Green Preliminary Site Characterisation and Generic Quantitative Risk Assessment 6/10/14 (Report 1)

Cole Green Former Mineral Workings Soil Survey and Generic Quantitative Risk Assessment 6/10/14 (Report 2)

Birchall Farm Site Characterisation and Generic Quantitative Risk Assessment 6/10/14 (Report 3)

These reports in our opinion are insufficient as to whether the land in question is suitable at present for housing. They are very restricted in scope and are totally superficial as we show below. There are significant omissions from the reports, they fail to identify relevant features and are in part incorrect. As the local authority responsible, it seems no one has tested the validity of the information contained in them or critically evaluated them, thereby opening up residents to additional and unnecessary costs and potential residents to the area of health and financial risks that they will be unaware of. Indeed, the investigations undertaken have been so poor that this site should never have been included as deliverable for housing. We are unaware of any reports or surveys that have been carried out by the local authority or on your behalf to validate the reports commissioned by the land-owner who hopes to gain planning consent for the site.

For example, these reports state, amongst many things, that the land on which houses are to be built is “virgin land” (ie, unworked), etc. We will challenge that at the Inspection and can produce documents from the County archive that will substantiate our point of view.

We are also very uncertain if the “averaging areas” used in these reports are meaningful as regards the dissipation of noxious materials across a wider site that the developer intends for housing, but this is something WHBC needs to verify.

These are things the Council should have verified even before concluding an MOU with East Herts District Council and Herts County Council on developing the site. Such verification should have been aimed at ensuring that any new development is “appropriate for its location” to satisfy NPPF 120, as follows:

“To prevent unacceptable risks from pollution and land instability, planning policies and decisions should ensure that new development is appropriate for its location. The effects (including cumulative effects) of pollution on health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects from pollution, should be taken into account.”

The MOU with the East Herts District Council states in paragraph 1.5 “Informed by technical evidence the plans propose....”. If this technical evidence refers to the three reports prepared by Royal Haskoning there must be a presumption that either they have not been read properly or accepted as facts without scrutiny by either Council. In short, we do not believe that the Council should be committing more effort towards this site until it has satisfied itself that the evidence submitted by the developer is correct and robust.

7. What is buried beneath the land?

As you must know, the site has been used for waste disposal since 1920 at a time when no measures were taken to line the area with any membrane that would safeguard future generations and no records were kept of what was dumped on the site until modern environmental legislation was first introduced.

We now understand that apart from all the materials dumped from London from the 1920s onwards, unknown compounds were also dumped on the site from a local chemical company which had its research facility in the town, as well as from other local manufacturing companies in the early 1950s that were neither recorded nor monitored. We have received recollections of experimental formulations and polymers being dumped there, as well as lead based compounds. We are unable to verify this but it is of concern.

A local witness whose information is set out in Appendix C states that whole drums of chemicals of unknown types, some marked with skulls and crossbones, were dumped from both trains and from lorries on the site. Some of these drums were marked with other distinctive warning symbols (see Appendix C –audio excerpts AE3 and AE4).

These drums are likely to be rupturing at varying times into the future and many may not rupture for some time yet. For that reason, it is unlikely that any site investigation will be able to ascertain what is located within the site as boreholes will never be able to locate all the drums involved. Furthermore, there is a danger of significant borehole activity actually making the situation worse, as this could spark some of those drums to rupture causing further contamination.

We have other testimony that suggests that two smaller subsidiary sites within the larger area authorised for landfill were used for the disposal of pigs at the time of a swine fever outbreak and for cattle at a later time for a foot and mouth outbreak. Further landfill material has been placed over the top of these separate pits.

We contend that neither the Council nor the developer are aware of what has been dumped on the site, though we do know that at least some of the waste falls in the “Special” category according to the Environment Agency's classification (ie "Waste that has hazardous properties and is defined in the Special Waste Regulations 1996. They may be flammable, irritant, toxic, harmful, carcinogenic or corrosive"). This merits close attention. Such sites are increasingly seen as hazardous to health, notwithstanding assurances from consultants and developers, but evidence is now coming forward that proves such sites are hazardous to health. We believe that the Council must now take this into account.

8. The land on which houses are to be built is “virgin land”

In Report 1, there are a number of statements made that we think require verification.

It refers to land at the western and southern boundary of the former mineral workings that “has no history of mineral extraction or filling”. The report also states that the “Any future built development will be on the virgin land utilised for the growing of crops.” (Page 6, second paragraph). We do not think that this is correct. It would appear that no reference or reliance has been placed on the history of the site and how this history might have a bearing on the site today. We contend that the boreholes and scientific work undertaken by contractors for the developer and referred to in this and other reports on the site actually supports the contention that we are outlining in this letter.

Your attention is drawn to the area marked “Filled area” amounting to 45.0 hectares clearly shown as 250m buffer to the landfill area to the east and north of it and shown as a plan attached to the Report 1 as 9Y0074/RO1/Figure 2. Note also that this area is not shown as “unworked”. This map is marked Appendix D.

We contend that this land, which is shown on Tarmac’s plan marked for housing in its first and now latest display on its web site, has been largely worked. Within living memory (see Appendix C –audio excerpts AE1 and AE2), a large part of the area to the west of the track called Howell Hyde Lane from Holwell Hyde Farm to the A414 was excavated for sand in a series of “scrapes” and subsequently filled. This would explain the annotation on Tarmac’s own submission documents but which is not explained within the consultants’ Report 1.

On 13 June 1947, an interim consent (shown as Appendix F) was granted by the then Hatfield Rural District Council to Inns and Company Ltd to work the land marked A & B for gravel and sand on the accompanying map marked 3533(see Appendix G).

In a final consent to mineral extraction dated 10 October 1947 (shown as Appendix H), Messrs Inns & Co were granted rights by the Rural District Council of Hatfield to extract minerals from an area marked A and B and marked red on the same accompanying plan marked 3533. Note that the area marked A shows an area still larger than the one that the Environmental Agency currently identifies as a historic landfill site. The latter is shown in Appendix I. Furthermore and in particular, map 3533 clearly shows that the area stretched right up to the area we now refer to as the Commonswood Nature Reserve.

A separate Scheme of Working document (Appendix J1) and an accompanying map relating to the same period in July 1954 (Appendix J2), shows the type of underlying minerals that the company sought to extract from this area. Note that the Scheme of Working document describes in words the very same areas as are shown on the map. On this plan, these minerals are marked as “ballast” and “sand”. This supports our contention that the area has been worked and filled in since Tarmac’s own consultants now show these materials as no longer being present. It also suggests that there is an area to the north, close to Birchall Farm, where there was sand. We cover this later in this letter.

It is our belief that these minerals were extracted in the period from the time of the grant and the late 1950s. As we have said, local people who still live nearby remember this area at the western end of the site was dug for minerals; they remember playing in the “scrapes” prior to them being filled in. These are areas that the developer claims are unworked and upon which housing is to be placed.

We also note that the map supplied by the developer and already identified as Appendix D differs in shape to the original map supporting the extension authorisation referenced 6/570//89 made in 1989 and marked as Appendix L. The latter suggests a larger area was authorised than the area shown as within the tip, as shown in Appendix

D. It is in this larger area where it is possible a greater amount of household waste may have been deposited and that this might not be the inert waste that the permission allowed. We think that this bears on the space the developer has allowed for housing. Note that Appendix O3 shows a larger area under the control of the site owner. This larger area is similar in outline to Appendix G and, in particular, shows the area to the west of Holwell Hyde Lane under the site owner's control.

We have further testimony from witnesses (Appendices M1 and M2) relating to the area at the south eastern end of the site by the roundabout on the A414 by the caravan site. We believe that the area filled with rubbish is larger than the one shown on the map published by Tarmac. Certainly planning approval was granted for inert material to be deposited there but there is a clear local memory that suggest the rubbish from the tipping area stretched right down to the base of the hill where currently there is a roundabout that leads uphill to Hertford, past the current waste station.

We believe that the reference to "poor crop growth" around CGTP02, again in paragraph 3.7.3 of Report 1, is likely to be the result of previous structures beneath.

In this same paragraph, reference is made to the outflow water at point SGSW01 as being of a "vibrant orange colour" and the report supposes that this could be due to the colour of the sand encountered at adjacent holes. No attempt seems to have been made to analyse the nature of that colouration but elsewhere in the report this site is shown as having the highest levels of contamination "including arsenic, barium, cadmium, chromium, nickel and zinc" (see also paragraphs 7.2.1 and 7.2.4 of the same Report). A photograph of that contamination is shown as Appendix K1 and K2.

The field to the west of Howell Hyde Lane is split into two very different types of ground. One which is full of Neolithic fragments in origin and the other is the "filled" area as shown in Tarmac's submission. (see Appendix M3) Again this bears out our conclusion that the area was worked and filled; that is contrary to the assertions made by consultants acting for the developer.

Report 1 has failed to identify at least one other marked tip known as Coopers Tip. It is believed that this designation goes back very many years where it was seen as a small strip of land beside the road. An aerial photograph taken on 19 October 1946 (Appendix N1) shows this area as a field (arrowed in yellow), whereas subsequent photographs show the same area with substantial workings still showing or being worked. A further aerial photograph (Appendix N2) shows the same area with workings arrowed in yellow as well as another area to the north which is arrowed in green. The latter is suggestive of the area being excavated and subsequently filled. A further aerial photograph (Appendix N3) shows the dumping area to the north of Burnside. It is arrowed in red. N2 and N3 show the dual carriageway as well as the development of Burnside very clearly. It suggests that the area cleared and worked was actually much larger than the historical area known as the original Coopers Tip. The two later photographs also show the unauthorised tipping behind Burnside which at the time was under the control of the same leaseholder (See Appendix M3). In Tarmac's second diagram of the developed site, a school is shown to be located on Coopers Tip and this larger area. These proposals are unsatisfactory.

Appendix N3 also shows a number of rectangle-like areas in both the larger Coopers Pit and beyond it to the north. We suspect that these may show the residue of sand or gravel extraction and filling in afterwards.

Report 1 fails to identify the unauthorised tipping area on the land behind Burnside and towards Holwell Hyde Farm (see Appendix C – audio excerpt AE5- as well as Appendix E, M1 and M3). One of the boreholes referred

to in the report does identify man made materials but does not identify this material as being part of a larger tipping area. This area was shown in Tarmac's first diagram of the developed site to be one where a school is to be located. In the second diagram issued by Tarmac of the developed site, it is planned to be housing. Not only is it inappropriate for either a school or housing to be located on a tipping area about which no records were ever kept, but the Burnside facility is subject to constant noise and dust as it is involved in breaking down materials for hard core amongst other activities. Central government advice stipulates that housing should be located a specified distance from such facilities.

You will also note that under the heading that refers to "ground conditions" in Report 1, the work on this report was split into two periods due to adverse weather and that "the outstanding scope of works is programmed to commence in early May 2014" (page 6 paragraph five). You will see, however, that the report is dated 28 April 2014. We wonder, therefore, whether the report has in fact been completed, in which case no evidence has been supplied, so far as we can see, in respect of this further survey on which you, as the authority responsible, could draw a reasonable opinion as to whether the location is suitable for housing or not.

The illustrations of housing on the site as provided by Tarmac also include two sets of housing that are almost wholly surrounded on three sides by landfill. After allowing for appropriate distances between the two and in view of the current concerns about health and proximity to landfill spaces, this appears to be folly on the developer's part.

9. The risk assessments made to date

We have noted that Report 1 concludes that the site is not "considered to represent an unacceptable risk to human health or controlled waters" despite the report being, on the face of it, incomplete.

More particularly, we would draw the Council's attention that under the heading, "Risk Evaluation", asbestos, lead, benzol and PCBs were located on site at locations which Royal Haskoning has identified as relating to made ground in relation to farm tracks. Our evidence suggests that infilling has been more extensive on this site than has been suggested, and so we question the report's conclusion.

We further suggest that the areas where many of these contaminants are to be found are more likely to be indicative of a drain off from the neighboring landfill since they are all at lower levels than the mound of the landfill itself. In particular, we would draw your attention to sites SW01 and SW02 on Tarmac's plans where their own evidence shows harmful leachate leaving the site. Our own commissioned preliminary surface water analysis shows a high level of divalent Manganese (Mn) in the same flow. Evidence of this can be seen in our Appendix S. Such concentrations, we are told, suggest a high level of anaerobic activity still taking place; this is not reported on within any of the Reports 1, 2 or 3.

Royal Haskoning concludes by stating that permeability between the primary and secondary layer of aquifers is assumed to be minimal. We think this is clearly flawed as it is unlikely that the two are separated continuously by a clay layer. Moreover, the EA states the quality of the water below the site is poor (see Appendix B). This suggests that the findings submitted to the Council are not simply flawed but worryingly so.

Finally, in this section we would draw your attention to the very same area in Report 1 to the paragraph 7.1.6 under "Surface Water". This clearly shows that there is a danger to human health now and in a location which

Royal Haskoning clearly notes as potentially dangerous to children who might play in that area. This is a matter that you should be directly concerned about.

We are also perplexed by the following statement in the same report as regards groundwater which is considered “that the likely contaminants recorded in the groundwater are from off-site sources, probably the up-hydraulic gradient landfill and not the on-site soils”. No doubt the Council has verified what this means and the reference to “off-site” is not simply referring to the landfill immediately next door and which is the subject of a separate report (ie, Report 2). Report 1, however, seems to be confirming that the contaminants are coming from the landfill next door.

10. The land proposed as being fit for a country park

This is covered in Report 2.

Essentially, this report suggests that the area where the majority of dumping took place from the 1920s is properly capped and that it is safe for use as a country park. Furthermore, the company goes on to say that there would be long term arrangements put in place for management and maintenance.

We cover these issues below.

The boreholes made on this site demonstrate that there is a cap over the landfill area, though it varies greatly in depth. The boreholes do not seek to verify what lies beneath that cap and we contend that the Company simply does not know.

Despite the area being capped, walkers traversing the site have reported man made materials on the surface as well as what looks like asbestos. Traces of asbestos are referred to in the Royal Haskoning reports. It is clear that use of the area even for sporting activity needs to be very carefully considered.

This site is supposed to have been properly capped. It has a history, however, of leachate polluting the neighbouring environments or coming from the site. We can trace this back as far as 1964; it is again an issue in 1985 and again in 1994. Copies of documents are appended as Appendix O1, O 2, O3 and O4. Your attention is drawn to the fact that it is unclear from the final documentation (Appendix O4) whether the proposed final capping was in fact ever undertaken as the agreement between the County authorities and Tarmac was never signed. We would have expected the Council to have verified this at the time it assumed responsibility for oversight of the area when this was passed over from the Environmental Authority. We believe this would have been around 1990 when the landfill site closed.

It is unclear if the recommendations of Report 2 as regards asbestos, PCBs benzo(a)pyrene were ever taken up. We think that this is something the Council should have pursued also.

In Report 2, the statement is made “The extent of former mineral workings is reasonably well defined; and the intrusive investigations undertaken on the adjacent sites to the west and south have corroborated the historical information for western and southern boundary”. We do not think this is the case as Tarmac has not indicated that that extraction went on beyond Howell Hyde Lane and the EA’s map of the area fails to identify this as well. However, we have identified documents, and referred to them in this letter to suggest, on the face of it, that both

Tarmac and the EA documents are incorrect.

The Council should also be aware that a number of cast iron ground gas vents to the south of the landfill area and bordering Holwell Hyde Lane below the fishing lake have not been replaced. It is our information that they were removed, probably stolen for their metal, not very long after installation (see Appendix C). If houses were ever to be seriously considered west of Holwell Hyde Lane, then at least the Council should have insisted that these gas vents should have been replaced long ago, and the gases properly monitored over a prolonged period of time.

Additionally, the data provided in the Annex of the Haskoning report regarding ground gas monitoring shows deficiencies. The records are incomplete in that some data is missing from some collection points and some points are recorded as inaccessible or accessible but the measuring equipment faulty. The recording on the site is claimed to be decades long and sophisticated but we have not seen evidence to back up this assertion. Has WHBC made its own investigations into this?

All these factors are reason enough in our opinion to discontinue including this site as a space earmarked as a “country park” associated with newly built housing. Any such housing would bring a lot of people and their pets into the area which, partly by design and partly by neglect, has up until now avoided any volume of people. By making it into a formal park, it would also attract still more people from outside the area and we see this as hazardous until the following conditions are met:

- a. There is a much better understanding of the hazards below the existing capping layer; and
- b. The integrity and efficacy of the capping is itself checked to ensure that it is adequate; and
- c. Future subsidence is monitored and catered for; and
- d. All hazardous materials on the surface are removed now; and
- e. Appropriate remedial work is properly defined and undertaken in respect of any changes to the surface of the area which is covered in this report; and
- f. Measures are taken to ensure that no leachates can move from the landfill to elsewhere where they can be intercepted by any humans, particularly children and pets who might play in the area; and
- g. Appropriate investigations are carried out to prove that the weight of any further capping does not result in any movement of the landfill that could compromise the safety of nearby housing; and
- h. Appropriate safeguards are built into any housing (should this ever go ahead) and after an appropriate passage of time; and
- i. An adequate passage of time has elapsed after due measurements of ground gas has been analysed and properly recorded.

The developer does not appear to have monitored the water table beneath the site since it is a place where hazardous waste is located. We believe this needs to be done to meet EA guidelines on land contamination. In

short, there is no evidence the landowner has any idea where the plume of contaminants from the site has gone, what it amounts to, or for how long it will remain as a hazard. Certainly the three Haskoning reports do not come even close to answering this question, as the bore hole sampling was only taken at very shallow depths and at widely spaced locations. It is clear from OS maps and elsewhere that what was once a pit is now a large hill, and that there has been subsidence on that hill as it settled after being initially capped. Investigations so far only seem to have gone down a meter or so into the ground and in many cases far less than a meter. How does this constitute an adequate and responsible approach to proposing a development where thousands of people would live, work and play in the future?

We do not believe that the area above the landfill should even be considered for any use other than either a park or left wild until not less than 60 years have elapsed since the last dumping took place on the site. This is the period which now appears to be the time stipulated for modern, well managed landfills to remain fallow after closure provided they have been adequately capped. As this site was not properly capped or fully lined and as it is one that harbours “Special Waste” it is likely that this site cannot be used until much later again.

We are very skeptical of any assertions made by the developer as regards its fitness to manage “country parks” in the interests of the wider public. It is decades late in delivering the open country park specified under the original planning application in exchange for extracting gravel from nearby Panshanger Park. Even today, despite several years of pressure from a coalition of local civic groups, a large swathe of the park remains closed and inaccessible to the public, despite repeated pledges that it will be opened up, as mandated in the legal planning agreement. We append a document as Appendix P from the Friends of Panshanger Park that sets out the current position on the park and the lack of effective action by the developer. The Council should be aware of this issue as it is a matter of substantial local interest.

Without any means of revenue for the management of this proposed park, we doubt anything could ever be delivered or then maintained. Management would likely be a very costly exercise due to the ongoing monitoring of the formal landfill areas for ongoing risks to human health. We suspect that the ongoing management costs would be such that they would constitute a serious adverse financial impact to possible residents.

11. The land north of Cole Green Lane

This is covered in Report 3.

It is noted that this report refers to an Envirocheck report that included “historical ordnance survey maps, including environment and regulatory information”. We find it difficult to believe that any realistic assessment of the evidence presented to it has ever been undertaken by the Council. At this first stage the evidence presented should have been critically examined to ensure that at least it is robust enough to be considered for going forward to the next step. This site was known as “risky” from previous discussions and had previously been excluded from development for the very reasons we are highlighting here, yet the evidence is open for the world to see in the County Records office and elsewhere.

Your attention is drawn to the section 7.3.2 headed “risk to designated aquifers/abstraction”. Some assumptions are made here that are not supported by the evidence supplied, as the limited number of boreholes fail to confirm that (a) the perched water will not migrate to the underlying aquifers and (b) the reference to PCOCs coming from “offsite sources” is somewhat disingenuous as it is likely these may come from the landfill to the south and which

is covered in Report 2.

The report's comments are also contradicted by the adverse comments made by the EA in Appendix B.

In addition, you should draw to the attention of East Herts District Council that there is an area west of Birchall Farm; behind Blackthorn Wood, shown in Appendix J2 that shows there is a sand deposit that, according to Report 3, is no longer present. The borehole evidence suggest a clay and sand combination is now located there but this contrasts markedly with the fine quality sand on the other side of the road immediately to the south, Birchall Lane. It is, therefore, possible that whatever lies there now is an inert infill placed there after the sand was excavated (see Appendix R) and Appendix AE6. Local testimony suggests that it is an area where scrap sand was spread after excavation.

We also enclose an aerial photograph taken in the 1980s which clearly shows a large area to the north of Birchall Farm that is the subject of extraction or where extraction is about to begin. This is shown as Appendix Q and is arrowed in red. In the developer's plans it is earmarked for housing.

12. The Environment Agency letter dated 9 February 2016 (See Appendix B)

This letter (copy attached) has only recently been brought to our notice. It is not included within the documents shown as submissions to the Local Plan on the WHBC web site, but it is material to the entire viability of the site and reinforces the concerns we have already set out above. Indeed, these issues are so material to the site that we feel they should have been made public as soon as the letter was received.

It was claimed that the EA has raised no objections (see paragraph 2.11 on Page 7 of Appendix Y) to the location as being suitable for housing. However, Appendix B heavily qualifies this and indicates the hurdles that will have to be overcome to make it suitable for development. These hurdles are markedly different in tone to those made by Royal Haskoning (eg, "these risks are not likely to represent a significant constraint to the proposed development of the site"). We believe the reverse. If the reports (which as we show in this letter are incorrect in part and incomplete) fail to identify all the risks involved, they cannot be relied on as sound evidence on which to proceed further forward. Certainly, the timescales and costs involved will be hugely different from those that might have been envisaged.

The following points from Appendix B are drawn to your attention.

- a) The boreholes sunk at Tarmac's request clearly do not go deep enough to indicate that the underlying aquifers are safe.
- b) We do not think that the sources of contamination have been fully identified or the potential pathways for contamination identified. As the landfill site may be over 100 feet deep (note it started as a quarry in the ground but it is now a significant hill), the work so far done literally only touches the surface.
- c) Our evidence suggests many of the original gas vents have been stolen and not replaced. This suggests that at a minimum a fresh set of vents will have to be sunk and proper analysis started all over again so that adequate records are collected over time unless there is evidence that these vents were no longer required following monitoring.

- d) Our view is that the re-capping of the site will almost certainly be necessary in view of the uses to which the land is planned to be put. As it is, there are environmental hazards lying on the surface now indicating that the existing work is faulty. The test holes applied to the capping show that it is inconsistent in depth and that landfill material is evident at very shallow depths.
- e) The impact of fresh capping will change the pressures on underlying landfill material and this is likely to lead to further leakage from the site and change the flows of contaminants from the site.
- f) The probability of special safeguards to ensure human safety in any housing nearby alters the entire financial viability of the site.
- g) The requirement for adequate distance from existing known waste management, together with sites that have not been properly identified, suggest that the diagrams for housing supplied by Tarmac are purely speculative and that the forecast number of houses proposed for the site are unlikely to be attained.
- h) There is a need to focus on flood implications downstream from the site and not just on the site itself.
- i) This is made worse if the requirement to have an 8 meter buffer zone from the Hatfield Hyde Brook to the nearest development is also taken into account.
- j) There is a need to factor in revised climate change allowances.
- k) There are contaminants in the surface waters' record in the reports submitted by Tarmac and we now understand that these are issues that fall within your own authority to monitor.

In short, it is difficult to see how this site can in current circumstances be called “sustainable”

Conclusion

In conclusion, we believe that the evidence submitted in respect of Birchall Garden Suburb is fatally flawed in that it is in part incorrect, incomplete and misleading and, as the local authority responsible, WHBC has failed to consider the issues that relate to the site properly. Had the Council considered these reports properly it would never have included the site in its draft Local Plan.

The effect of this then suggests that the viability and assumptions used to justify the entire Birchall Garden Suburb, including the accompanying development within the East Herts District Council are therefore questionable and should be reconsidered.

We had also assumed that the Council has ensured that it has met its obligations under the Control of Pollution Act 1990 Part 2(a), but we are less than certain if this is the case in view of your Environmental Health Officer's comments in Appendix A which this must cause all residents immediate concern. However, lack of effective action by WHBC would also affect future residents. The point was recently highlighted in an exchange before the House of Commons Environment Audit Committee (See Appendix Z) on 12th April 2016.

The committee transcript we reference includes the following relevant extract:

“Q146 Rebecca Pow: Mr Price on that aspect—we got slightly away from my question because it has broadened out a bit—there is a presumption in favour of trying to get local councils to bring forward their brownfield sites, but do you think we are not ready enough to do that? That we have not taken enough account of their value or the need to clean them up? All those things, Mr Price?”

Howard Price: There are some concerns about whether the planning process can bring forward brownfield sites that are safe for the future. There are a number of issues going on with the planning system at the moment. The one I am referring to, in particular, is there is some ambiguity in the National Planning Policy Framework about whose responsibility it is in effect to set environmental standards in planning. The guidance previously on this in PPS23 ran to something just over 40 pages. It is now a matter of a few lines and three paragraphs in the NPPF. Although the underlying policy has not changed in fact it has lost some explanation in that process. I am hearing that is being exploited to some extent by developers and in the case of appeal-averse planning authorities. The line goes that all developers have to do in the case of contaminated sites is just to duck under the Part 2A bar and any further clean up is entirely up to them. It is at their discretion or their risk, but it is not their risk of course it is the risk of future occupiers.”

We have seen no evidence to suggest that the issues relating to the proposed development have been properly relayed to East Herts District Council and for this reason we are copying them in with this letter, together with the Hertingfordbury Parish Council and Essendon Parish Council, as well as the mineral authority, Hertfordshire County Council and the EA.

Finally, Welwyn Garden City was founded as a town “designed for healthy living”. It was set up to attract people from cities who wanted to escape their contaminated and polluted living conditions. Now, here we are less than a century since the first brick was laid and WHBC is unable to find a better site for a large housing development than by a hill largely composed of 70 years of the last century's rubbish, much of it waste from London. The very thing the original townsfolk came here to get away from is now seemingly a good location for new residents to live beside and enjoy. We think that this is an affront to the town, its heritage and its founder, Ebenezer Howard.

Yours faithfully

for the Welwyn Garden City Society

Will Davis

Chairman