

Councillor Margaret Eames-Petersen- (Hatfield Town Council) Salisbury village Councillor.

Submission speech to PI , against planning application PL/0232/21 – proposed Aerodrome Quarry on Nov 20th 2024

“Save our water sources and public park” -a uniquely dangerous location for a quarry, in Herts

1. **My name is Margaret Eames-Petersen**, Hatfield Town Councillor and former County councillor for Hatfield North (2017- 2021). I am speaking on behalf of residents in my ward -Salisbury village,in Hatfield. I also work in public health as a Head of public health intelligence, (previously across Herts and Beds) and was formerly a Senior lecturer in Epidemiology and Medical statistics at UH.

This proposed quarry site is located in my ward. I wish to speak against it, because in 2024, (with drought warnings from Affinity water) it is imperative to protect our water sources in Hertfordshire (the clean chalk aquifer currently supplying Hatfield -west and South of the site) and to save our only public park in Hatfield, threatened by this quarry.

***2a) The Ellenbrook Country Park was promised by Arlington**, in a s106 agreement in 2000 , Salisbury village and Hatfield new Garden village (over 6000 houses) built between 2000 and 2008 on the old British aerospace site,-with very small back gardens- because of the promised access to Ellenbrook Country Park behind their houses

* The park also provides the **important Greenbelt divide** between Hatfield and St.Albans, and is important for fresh air , exercise and recreation in Hatfield .

My residents feel betrayed by Arlington (now ARC) breaching their promise of the park in 2000, by inviting a large quarry onto this land.

2b) Slide 2: The blue and red patches on the map on slide 2 show Ellenbrook fields, Hatfield first public park. The red patch is the proposed quarry site. The white rectangle at the bottom right marked Ellenbrook ,is actually UH sports fields, with 2,000 students in 9 halls of residence of Albatross Way and Salisbury village next door and bordering the park on the East side. .

3a). Slide 3 The next map shows that all three new sand & gravel quarries proposed for Herts emerging mineral plan are located in Hatfield. This is unreasonable and disproportionate by Herts to Hatfield . The Cemex Hatfield quarry is shown in yellow, North of the Ellenbrook site and Furzefield (now active) & Coopers Green Lane sites 2 and 3 (now permitted) are the Cemex quarries – shown in pink next to the A1(M).

3b) However the Aerodrome/ Ellenbrook Park quarry is the most dangerous. You will see it is located on a residential road, and bus route, running between St Albans and Hatfield. The proposed entrance is dangerous, but worse **it lies over a dangerous carcinogenic bromate plume, the worst pollution of a chalk aquifer in Europe (as recorded by PHE and EA)- 16m underground.**

3c). The Herts emerging mineral plan (of 2023) mentions an alternative quarry site -the “**site MAS01 ” at Olive’s Farm in East Hertfordshire** of greater capacity (10.2 Million tonnes) of sand and gravel- and possible extension, not near 3 housing estates, entrance on the A414 , but also on a possible sustainable canal transport system (afforded by the River Stort and River Lee next to this site) which would be a far **safer site for the success of the mineral plan, and for saving the planet-and to comply with HCC sustainability policy.**

4. Slide 4 : This slide with map (from 2018) from Sandridge upto the River Lee shows **the extent of the bromate plume, 16m underground – Hertfordshire’s environmental disaster shown on the third map.** This shows how the plume has not been contained, and has spread >20 km, under Essendon to the New North River, Broxbourne and Hoddesdon ,with concentrations greater than 10µg/l, WHO max level for drinking water.

5. Slide 5 : We need to try to protect Hertfordshire’s current clean water sources. **Dr Rivett (an expert hydro-geologist) has submitted papers (see my proof of evidence and his) showing how the LMH under Ellenbrook fields is currently key to protecting East Herts & Hatfield from further pollution.** This is a **unique site for the bromate remediation,** underground ,and this role should not be trivialised. The quarry disruption and removal of the LMH is dangerous to changing the bromate contaminated chalk aquifer flow in the area (one of the key conditions by EA which **MUST NOT HAPPEN**). A plume like this, has never happened before in the UK or Europe. Digging out permeable sand and gravel (of volume: 16 million m³) so close to the **plume, is dangerous. Replacement with less permeable inert waste-is likely to change the path of the plume-** and Brett cannot be sure it wont. . Surely the precautionary principle needs to be followed here -to choose the safer site in Herts for the quarry. **The** correct remediation of the bromate is paramount in 2025 , for Hertfordshire’s future water supplies (Essenden, Tyttenhanger and Roestock WPS) not to be compromised.

6. Slide 6: shows the maps of the proposed quarry ste (in 2019) with the **Borehole data plotted** in and around the quarry site (19 boreholes). It shows that **bromate (orange rings) have already contaminated most (11) of the 19 boreholes** around the site - during the period 2013-2019. (this is from plotting Brett’s own reported data).

Bromate , (orange >2µg/l, and yellow rings 0.5µg/l) surround the dig site, of the quarry- and so Brett have moved the site 100m Westwards . However this map gives a strong indication that the plume already is likely to lie under and inside the boundary of the new actual quarry dig site.

This makes breaching the stipulated EA conditions very likely from the outset- and gives a good case never to start quarrying.. We would be more comfortable, if EA had taken their own independent samples from the boreholes -rather than relying on Brett. There are conflicts of interest for Brett.

Some boreholes have no data eg BH 107, which lies within the dig area . It would be more transparent to have all the data , whatever the readings .

Public health- the leak into our drinking water chalk aquifer, occurred at a sump (possibly medieval well) ,where Potassium bromate (carcinogenic) and Bromide (less harmful) was

being dumped from 1955 by Steetly chemical works in Sandridge. It is soluble and **contaminated Hatfield's drinking water** supply- but it was not found until the water in Bishops rise WPS (BRWPS) was tested in 2000 -due to a new WHO bromate standard. It was found to be **20x over the WHO limit-** in 2000 and so BRWPS had to be shut. It is thought Hatfield's drinking water may have been contaminated since the mid 1970's - taking 15 years to migrate from Leonard's court, Sandridge to Bishop's Rse in Hatfield, but without any earlier measurements we are unsure. So for how long were residents drinking the contaminated water? This means there was an exposed population (approx. 35,000?) in Hatfield who drank bromate contaminated water from **1980-2003**. In 2003 ,the water pipe diversion was completed. From then drinking water for Hatfield was sourced from S.Mimms.WPS (in place of BRWPS) by Veolia/ Affinity. **Bromate is thought to be carcinogenic if drunk cumulatively (papers published from USA, and Japan) causing thyroid disease, and kidney morbidity and mortality,**

The **pollution of the drinking water with Bromate ,was not made public in 2000** and even up to the public Inquiry of 2008, little was publicised in Hatfield, or HCC, for residents themselves to investigate with their GP, the possible side effects of drinking the water on their health. (Some may have died, without knowing why). A "quick investigation" by SAHSU, at Imperial College in 2008,seemed to show no excess mortality in Hatfield, but this was on limited data, did not explore morbidity, and had not allowed enough time to see any longer term side-effects on morbidity and mortality (eg under-active thyroids- thought by GPs to be in excess in Hatfield now).

Our County Public Health dept analyst was asked to investigate rates of thyroid and kidney disease in Hatfield in 2018, (among those exposed 1980-2003 ,and still living in Hatfield) Some higher rates of thyroid disease (than the average for UK) were found from GP data. However the denominators were not restricted to the exposed population only, The whole population of Hatfield up to 2018 was used, so the rates calculated were diluted, compared to the true rate in the exposed population. This implies there is a higher rate of thyroid disease, than was calculated, but with Covid in 2020-21, no further work has yet been conducted.

Hatfield residents are entitled to know the full story. It seems very disproportionate to the population of Hatfield, given the availability of sand and gravel in East Herts, that this quarry could still be allowed to be in the emerging mineral plan, given the public health risks and **the risk to contaminating Hatfield's water supply yet again (via Essendon or Roestock WPS) .**

7.Slide 7: EA conditions specified for the Brett Quarry on 28 August 2019 (to HCC) :

- 1 No mineral is extracted from within the existing plume of bromate and bromide groundwater pollution.**
- 2. Any activities close to the plume must not change the existing hydrogeological flow regime.**
- 3. Any activities close to the plume must not interfere with the remediation of the bromate and bromide**

2µg/l limit of detection is used to define the boundary of the plume, as for CEMEX quarry.

These conditions, (after scrutinising the SLR borehole data) are almost certainly going to be breached from the start- and at that point **QUARRYING MUST STOP**- at the instruction of EA.

8: Slide 8 Because **remediation between 2008-18 did not reduce the bromate concentration at BRWPS, a second remedial plan s needed to be drawn up, by the EA . The map on slide 8 shows the highest concentration of bromate in the plume** in the north of Ellenbrook fields, near Astwick manor. This would be a prime site for the essential remediation, but a quarry in Ellenbrook Park could jeopardise this, If flow of bromate is diverted.

9. Slide 9 shows three different local sites with different concentrations of bromate Remediation would be **most effective at the highest concentration site_ ie in Ellenbrook fields at Astwick manor** . It could also be in the old Hatfield (Cemex) quarry site.

10 . Slide `10 .The location, and concentration in the plume depends on rainfall and the rate of pumping at Bishops Rise WPS. Ths Slide shows how the plume lies under the North east side of the quarry site. Tyttenhanger and Roestock WPS now serve S.Mimms with drinking water for Hatfield. **Roestock WPS in Colney Heath** (which supplies S.Mimms) **lies only 0.9 miles from the edge of the plume, supplied by a separate clean chalk aquifer , flowing to the S.West of the quarry site** – this currently supplies Hatfield with clean drinking water, Removal of the LMH and less permeable backfill is likely to interfere with aquifer flow, and spread of bromate and could cause this source to become contaminated.

11.Health Impacts : this quarry poses other serious health hazard impacts .

a) University of Herts students inhaling silica dust from 5m high stock piles ,which are likely to catch the wind, causes silicosis (cancer),and lung diseases **whilst playing on their sports fields**; right next door to the quarry. Children also use these fields

b) 2000 students living in halls of residence only 350m away, off Albatross way - who currently take exercise in the park, and have windows open, would inhale Silica dust, and PM 2.5 from the HGV.

c) Three housing estates Salisbury village, Ellenbrook and Smallford are very closeby.(>7,000 people)

d) Diesel fumes with NO₂ and PM 2.5 particles (dangerous to Coronary heart disease, and lung disease, and children's lungs)will be inhaled from the extra 174 quarry lorry movements per day on the A1057, by Ellenbrook ,by UH de Havilland site (where students walk to lectures); and UH college lane site , and other residential Hatfield roads off Roehyde Way: Tudor Close and Woodpecker Ave -see Appendix 1, and 2. There are 35,000 students studying at the University of Hertfordshire in Hatfield

e) loss of Hatfield's first public park with its weekly **park run for 300 participants**, use by school, cyclists and dog walkers. Removal of the LMH and backfill with impermeable

clay, raises a serious flooding risk to residents, besides disturbing the current flow of the broate to Bishops rise for remediation.

12.Slide 12 :

In conclusion:

Hatfield needs this public park- for exercise and recreation, after Covid19 and beyond. The Park Run (300 participants) has stopped currently each week- but many want it back .

Please do not risk the drinking water of Hatfield being contaminated with carcinogenic broate again.

Affinity water have taken out a private agreement with Brett due to the recognised risks of broate pollution. **This agreement should not involve non-disclosure but be transparent to scrutiny and the Inspector.**

Why risk the Herts emerging Mineral Plan failing? when there is an alternative safer site without broate, producing more sand & gravel, not sited near 5000 units of residential housing (+2000 student residences), located on both a sustainable canal system and a road much more suited to HGV, the A414.

Please reject this quarry in Hatfield.

Thank you for listening

Cllr MEP Nov 20th 2024

Appendix 1 : HTC response to Brett Quarry 2nd Application (for Oct 31st 2023)

Appendix 2: Critique Brett Transport strategy for HGV routing (Junction 3 and link to Junction 2 of A1(M), Roehyde way, with cycle path omitted –(the other campus of UH, and bus terminus at the Forum)

Appendix 3: HTC response to Herts draft Mineral plan March 2019