

**Cllr Margaret Eames-Petersen**  
**Hatfield Town Council (47,000 residents)**  
**Hatfield (Salisbury) villages Ward**  
**Previously County Councillor for Hatfield North**



**Response to the Brett Appeal-against rejection of the quarry on 24 Sept 2020**

- 1. Save our Herts Water sources**
- 2. Save Hatfield Country Park-  
needed for Public health in Covid 19 and beyond**

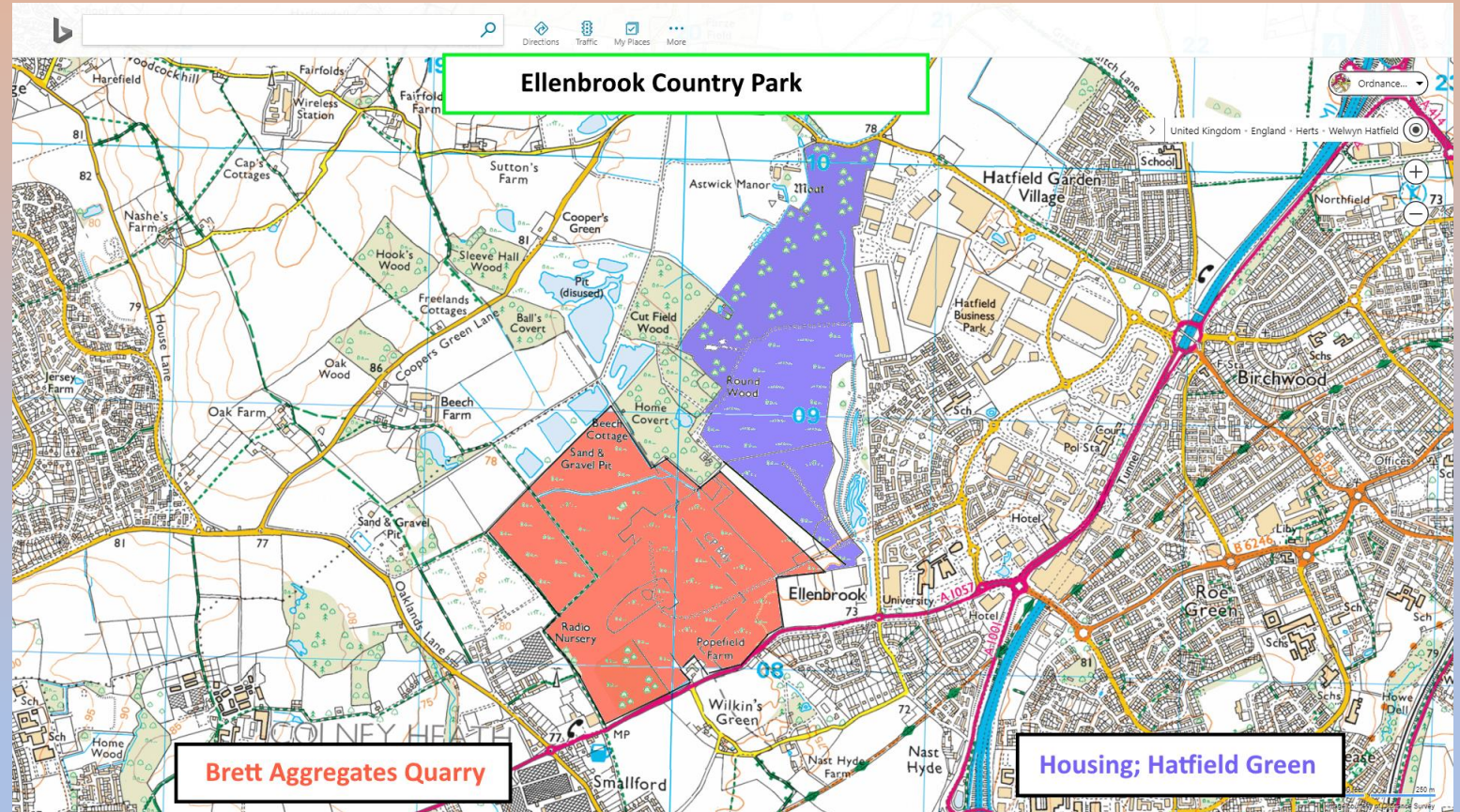
**Say “no” to this inappropriate quarry site**

**Support the right HCC Mineral Plan**

# Save our Hatfield Public Park

The Greenbelt Divide  
between  
St.Albans and Hatfield

Promised by Arlington-  
(s106) to the new  
houses in Salisbury  
village, and Hatfield  
Garden village in 2000.



# Proposed Aerodrome Quarry – red

# All Three Quarries for Hertfordshire located in residential Hatfield-unreasonable

## Quarries in the mineral plan

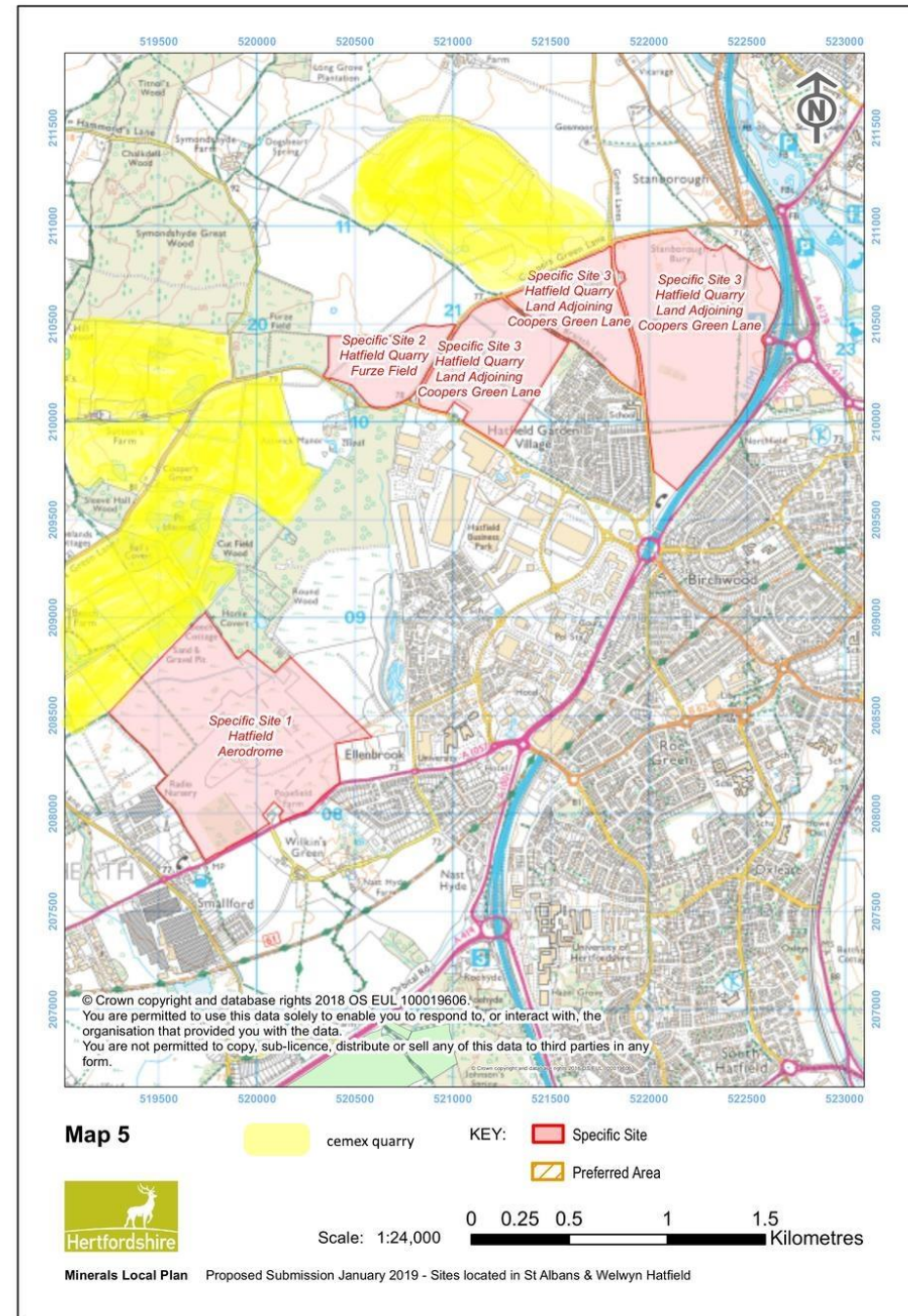
Specific Site 1 – Hatfield Aerodrome - Ellenbrook  
(8 million tonnes)

Specific Site 2 – Hatfield Quarry – Furze Field

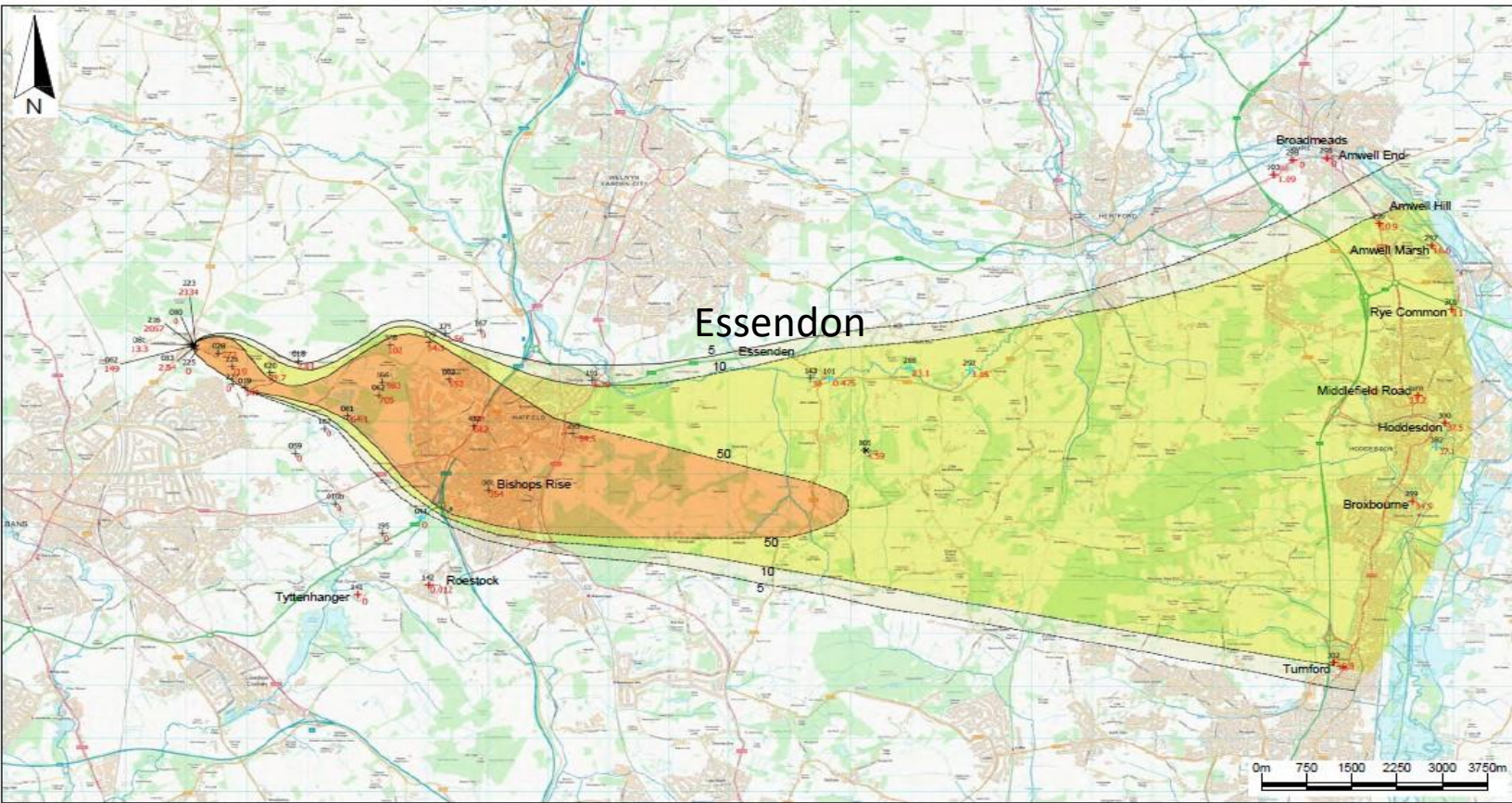
Specific Site 3 – Hatfield Quarry – Land adjoining  
Coopers Green Lane-

Preferred Area 1 – The Briggens Estate (Olives  
Farm, Stansted Abbots) **TARMAC** proposal  
(Not on this map)

(10.2 million tonnes)



# Hertfordshire's Environmental disaster: The bromate plume extends 20 km underground from Sandridge to the River Lee, Hoddesdon & Broxbourne



- + Location of a monitoring borehole or spring used for the interpolation of bromate concentration contours. The Environment Agency location reference number is presented in black.
- + Location of a public water supply borehole or scavenge pumping borehole used for the interpolation of bromate concentration contours.
- \* Location with inconsistent data for the representation of the bromate plume contours. These inconsistent data points have been omitted from the interpolated contours presented.
- 60 The bromate concentration in µg/l recorded at the location from data available for samples collected between January 2016 and December 2017.
- + Location of a surface water monitoring point. The data from these points are not included in the contours.
- 101 Monitoring location reference

Tytenhanger Public water supply

- Bromate concentration is between 5µg/l and 10µg/l
- Bromate concentration is between 10µg/l and 50µg/l
- Bromate concentration is greater than 50µg/l

	Final	KR	SBA	LH	13/07/18
Rev	Status	Dm	App	Chk	Date
Site ST LEONARD'S COURT, SANDRIDGE					
Client Redland Minerals Limited and Crest Nicholson Residential Limited					
Title Interpolated contours from the average bromate concentrations calculated from available records of groundwater sampled during 2016 and 2017					
Figure 4			Scale 1:75,000@A3		
Drawing Ref TAR/SAN/07-18/20653					
Contains OS data © Crown Copyright and database right (2017)					

# **Protect Hertfordshire's Water:**

**The LMH under Ellenbrook fields is protecting Hatfield and East Herts water from further pollution.**

**This is a unique site for remediation for Hertfordshire and should not be lost.**

**The quarry disruption of the LMH is dangerous.**

# The Public Health –the history of Bromate, a chemical Hazard under Hatfield

**1.1960-80 Steetly chemicals dumped** waste Potassium Bromate and products down a “sump”/well in Sandridge, St Albans.

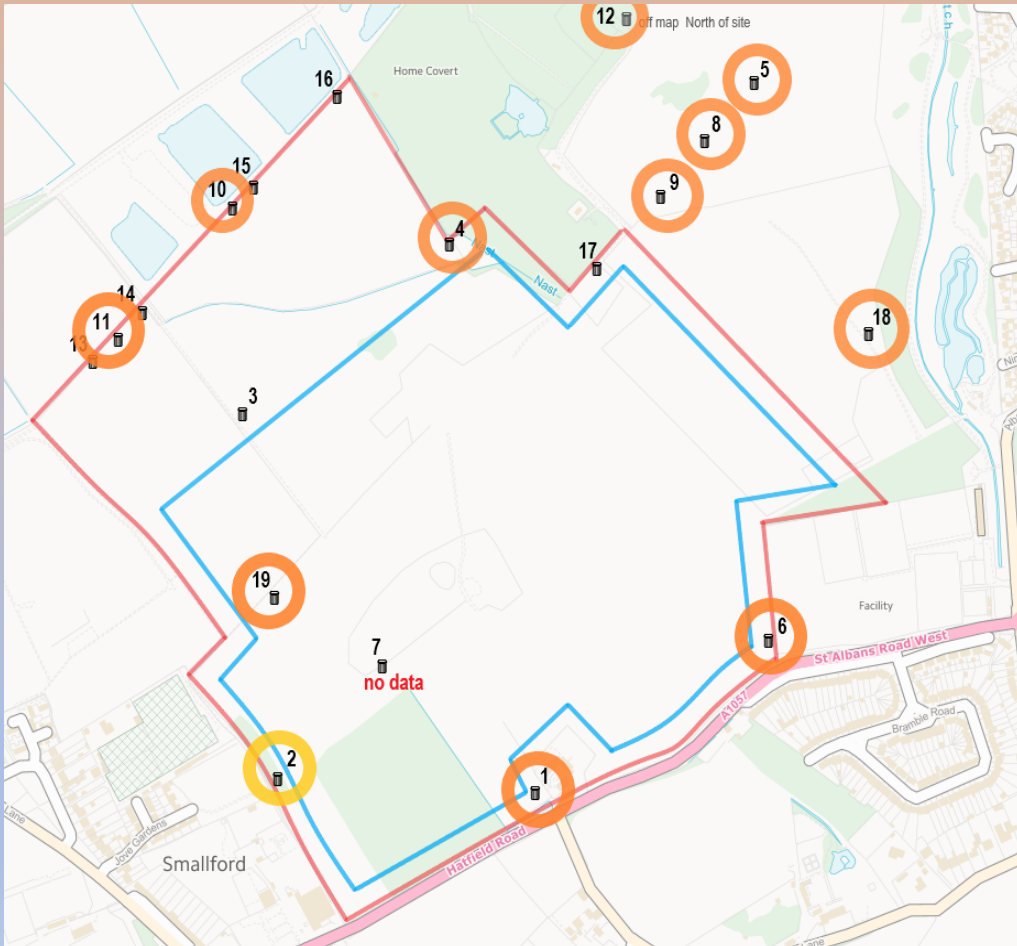
**2.1970's-2000 Bromate leaked** into chalk aquifer (flow East), 16m underground. 30 years pollution, Likely under Hatfield (since 1980's)

**3.2000 WHO published Bromate limit in drinking water-10 µg/l** . Bishops Rise WPS **20x** over limit. Shut 2003. Water Pipes for Hatfield redirected-to S.Mimms. Population drinking the water- Hatfield >23,000 people

**4.1980-2003 Population exposed to Bromate poisoning? Carcinogenic –affects thyroid, kidney, ears. USA papers published but rare.** Hidden from public eye 2000-2008. Worst water pollution in Europe .**Cumulative affect** of drinking bromate contaminated water- **for 23 years-not truly investigated.**

**5.2019 Evidence of excess thyroid and Kidney morbidity in Hatfield?** No proper investigation yet conducted. GP morbidity data only collected since 2006. Likely to increase mortality, and evidence of higher rate of under active thyroid function.

# Borehole data showing bromate exceeding the EA stated plume-definition concentration (2 µg/l ) between 2013-2019 within Quarry site



No on map	Borehole	geology	bromate
1	BH101	LMH	4.7
2	BH102	CHK	0.5
	BH102	CHK	0.6
3	BH 103	LMH	<0.5
	BH103	CHK	<0.5
4	BH104	LMH	2.1
	BH104	CHK	4.2
5	BH105	UMH	<0.5
	BH105	LMH	233.8
	BH105	CHK	178.6
6	BH106	LMH	5.3
7	BH107	UMH	x
	BH107	LMH	x
	BH107	CHK	x
8	BH108	UMH	dry
	BH108	LMH	<0.5
	BH108	CHK	227.3
9	BH201 L(s)	LMH	92.8
	BH201L (D)	CHK	x
10	BH301	LMH	3.3
	BH301	CHK	2.5
11	BH302	LMH	3.5
	BH302	CHK	4.0
12	BH305	LMH	563.1
	BH305	CHK	Non-op
13	GMW 103	UMH	<0.5
	GMW1 03L	UMH	x
14	GMW1 05	UMH	x
15	GMW1 07	UMH	<0.5
	GMW1 09	UMH	<0.5
1d a7	BHA	UMH	<0.5
18	BHB	LMH	13.9
19	BHG	LMH	2.4
20	BH307	UMH	x

- Historic Data shows some Boreholes have levels at or above 0.5 µg/l (eg BH19 in dig site) had 2.4 µg/l in Oct 2015.
- Currently some boreholes have data only to Feb 2019 and some have no updated data to show what bromate levels are present today.

## • Data source Brett

## • Key

Bromate at or above 0.5µg/l = yellow

Bromate at or above 2µg/l = orangeGold

Below 0.5µg/l = <0.5 white

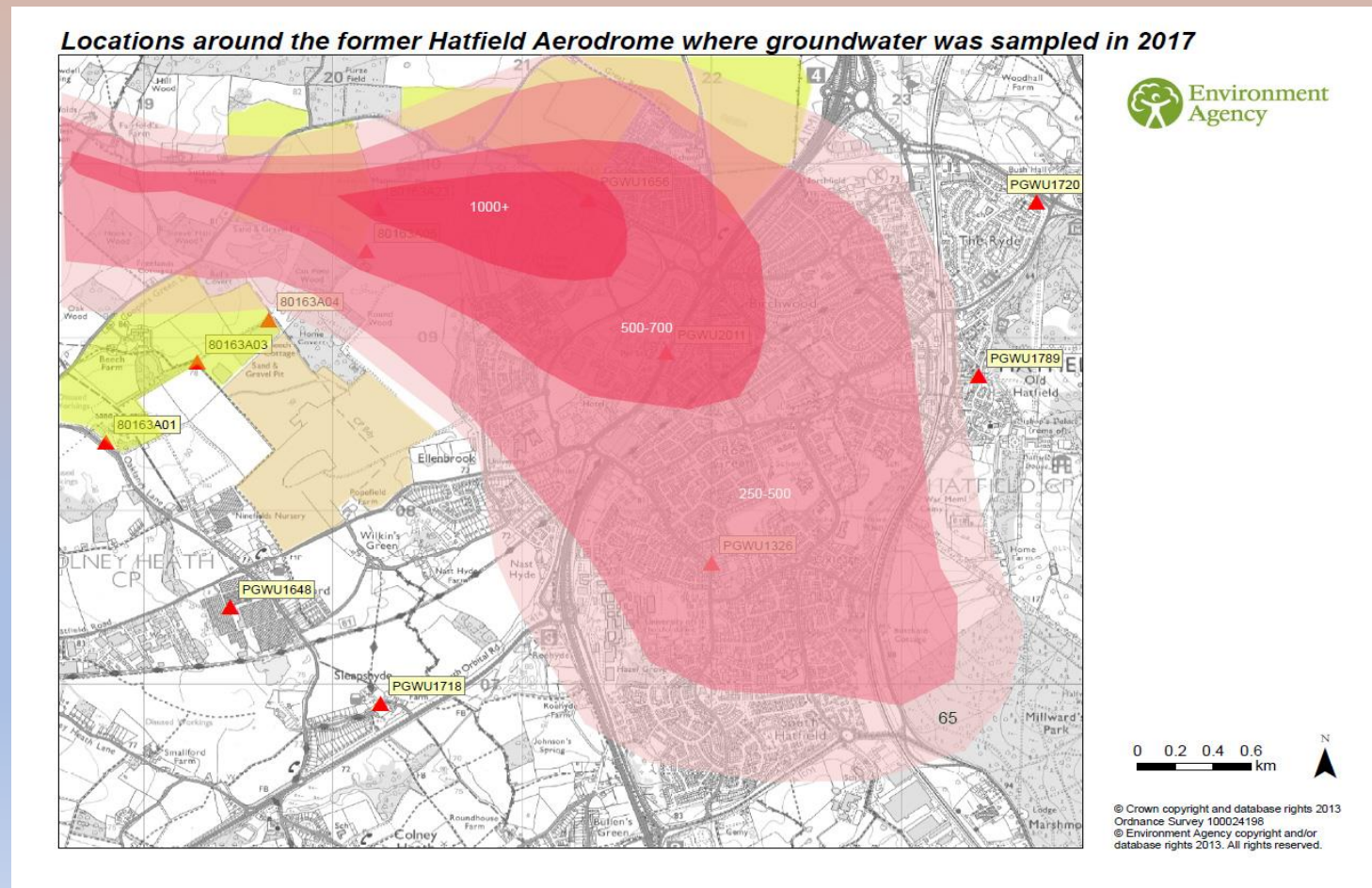
x = no data supplied

CHK = chalk.

UMH = upper mineral horizon.

LMH = lower mineral horizon

The 2<sup>nd</sup> remedial plan (2021-2030) could try to **remove bromate** from **Ellenbrook Fields, near Astwick Manor**, but quarry extraction of the LMH, could jeopardise this action.



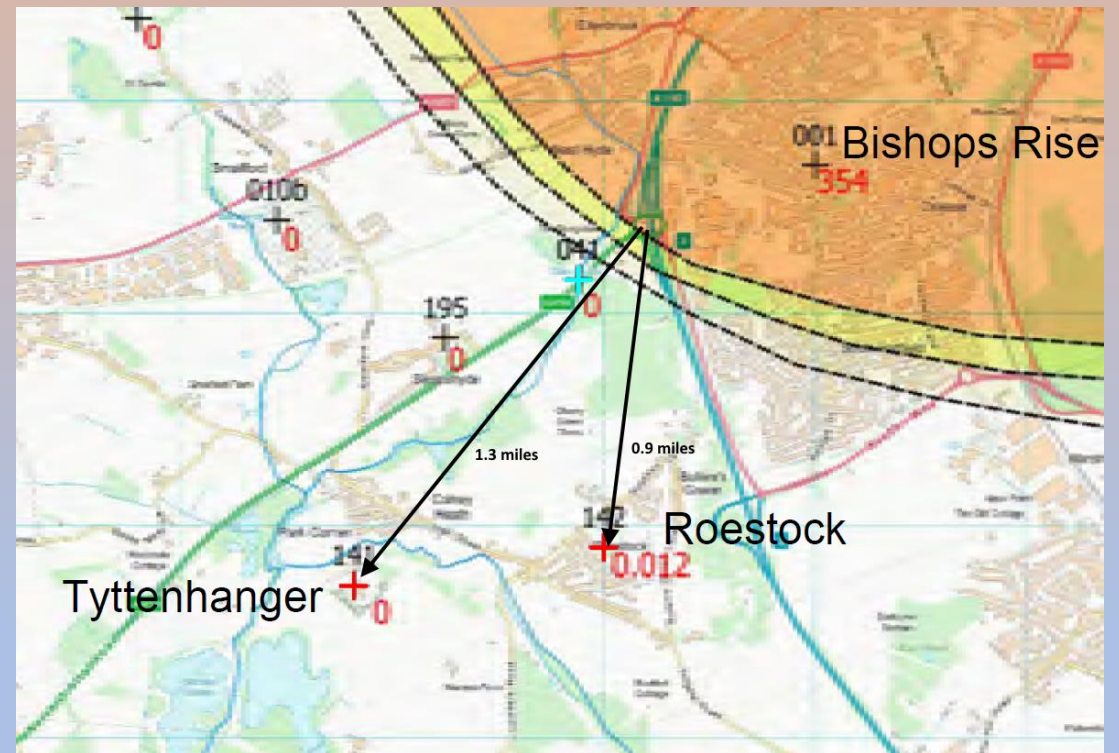
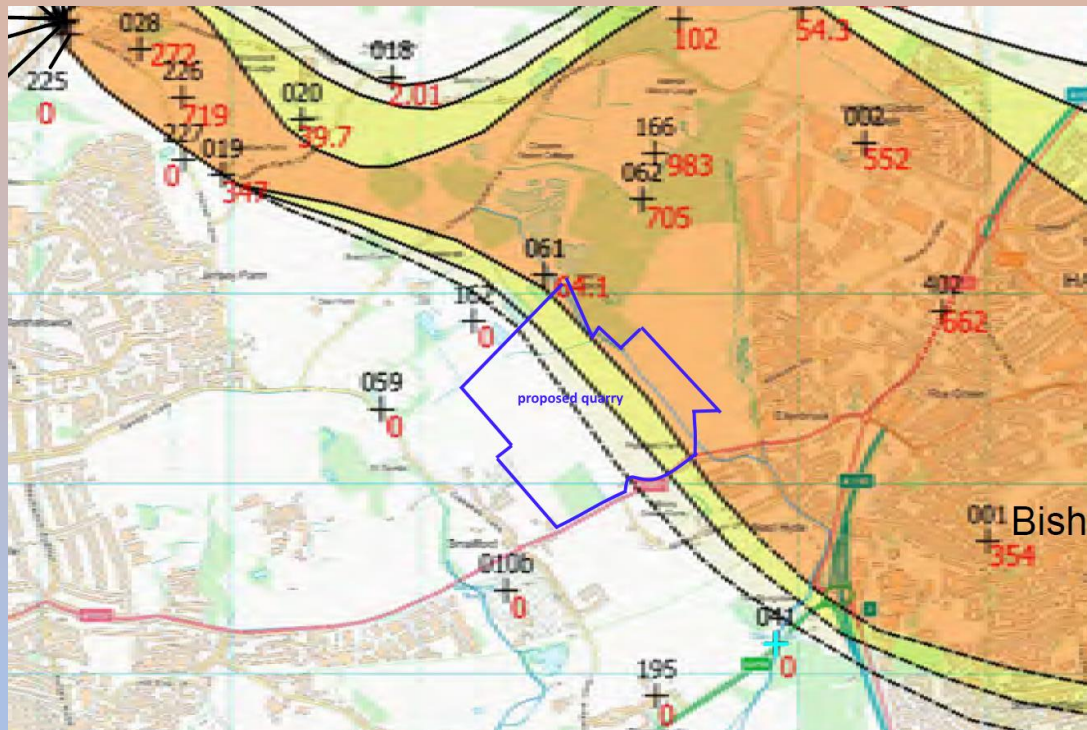
## **Urgent need for better bromate remediation**

**One recommendation is to remove bromate from the highest concentration areas:**

**Three borehole sites- nearer the source accessible for further remediation in 2020**

<b>St Leonards Court – Orchard grange .....</b>	<b>314µg/l</b>
<b>Woodcock Hill – Nash’s Farm .....</b>	<b>537µg/l</b>
<b>Ellenbrook fields –near to Astwick Manor ....</b>	<b>1000µg/l</b>

**The plume bisecting 1/3 Quarry site & 0.9 mile from Roestock (PWS), Colney Heath- disturbance of the LMH could jeopardise this source for Hatfield.**



## ❖ **Other hazardous health factors:**

1. **UH students' sportfield** right next to quarry site  
Inhaling silica dust- harmful to lungs,
2. **2000 students** residences next door
3. **Three housing estates** right next to the quarry, Ellenbrook, Salisbury village, Smallford (>6000 residents)
4. **Diesel fumes with PM2.5**, from extra quarry lorries on A1057, a residential road, are harmful (CHD, and Lung disease) to children and elderly and likely to increase mortality.
5. **Public health** - Loss of Ellenbrook fields, Hatfield's first public park, used for exercise, fresh air, used weekly for park run(300), local school, dog walking and cycling.
6. **Flooding risk to Ellenbrook** (due to impermeable back-fill)

# In Conclusion

**Hatfield residents need this public park- in Covid 19 and beyond.**

The carcinogenic bromate, is so close to this site ,please **do not risk the contamination of drinking water in Hatfield again.**

Affinity Water have taken out a private agreement with Brett, due to the risks of bromate pollution. **This should be more transparent.** EA conditions almost certainly to be breached at the start.

**Why risk the Herts Mineral Plan failing?** –when there is an alternative site,in East Herts, at Olive's farm, Stansted Abbots, without bromate, producing more sand and gravel, not near housing, on the A414..

Please support our objection to this quarry.

The people of Hatfield

*Thank you for Listening*