Launders Lane

Public Meeting
24 November 2023

Council Presentation

- Speaker Introductions
- Quick Background
- Key Activity since May 2022
- Activity Since Last Meeting (01/09/23)
- Fires
- Intrusive Soil Investigation
- Health Risk Assessment
- Planning Position
- Next Steps

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Speaker Introductions

- Cllr. Ray Morgon, Leader of the Council
- Andrew Blake-Herbert, Chief Executive
- Laura Legate, Director at Geo-Environmental Services Ltd.
- Alex Strand, Station Commander, London Fire Brigade
- Mark Ansell, Director of Public Health
- Helen Oakerbee, Director of Planning and Public Protection

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Background

"Arnold's Field"
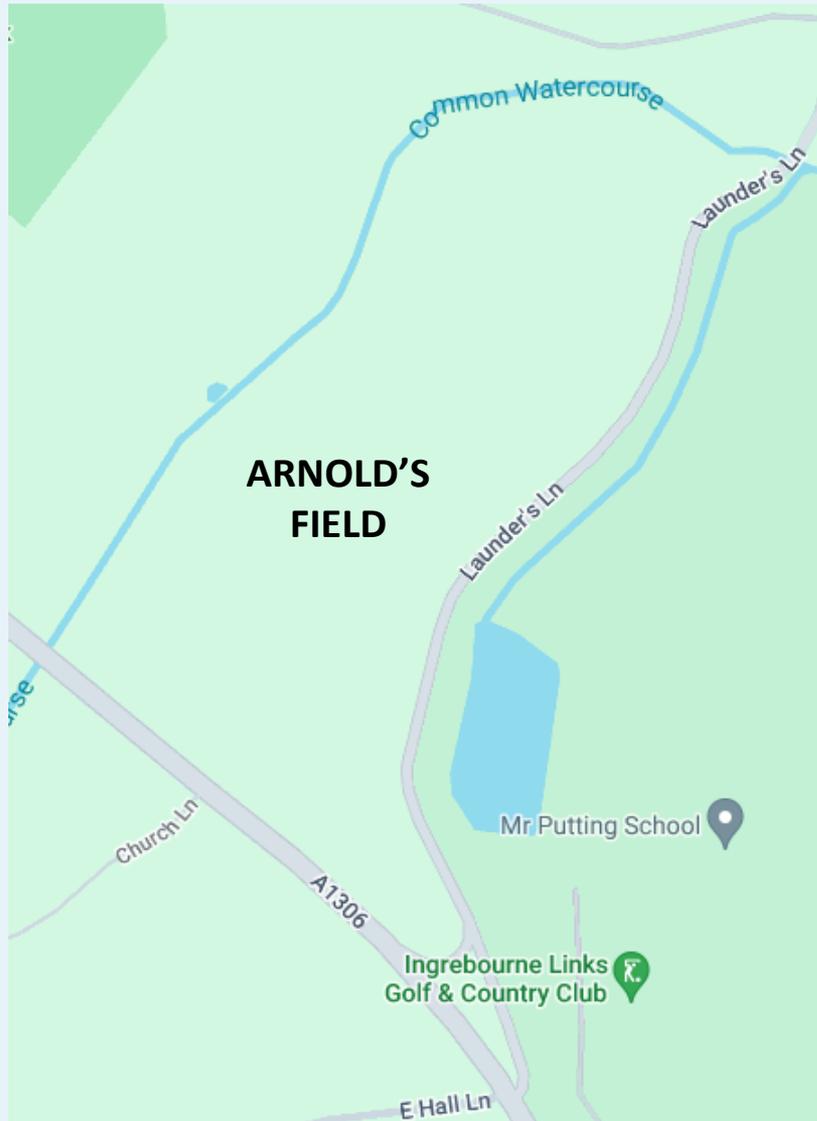
- History includes agreed use for mineral extraction (sand and gravel) and legal landfill up to c1965
- 1999 – Permission for community woodland
- 2004 – Stop and Enforcement Notices served (due to excess materials)
- 2005 – Appeals dismissed
- 2009-11 – Earth movement, no significant dumping of waste
- 2012-16 – Significant waste dumped on site
- 2017-18 – Prosecution led by Environment Agency
- 2017 DMC Essex acquired the site

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Key Activity Since May 2022

- Established dedicated Council webpage about Arnold's Field (Launders Lane)
- Established expert technical group with UK Health Security Agency, Environment Agency, Imperial College London, London Fire Brigade and others
- Access to Breathe London data via Council website
- Commissioned enhanced monitoring for fine particulates (PM2.5), nitrogen dioxide (NO2) and for specific pollutants
- Frequent visits to site
- Commissioned formal soil investigation
- Meetings/correspondence with landowner
- New newsletter to keep residents informed

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Activity Since 1 Sep 2023

- GESL – intrusive investigation of site plus soil sampling by GESL
  - Works on site (18-22 Sept)
- Started newsletter – now 200 people signed up
- NEL-ICB (North East London Integrated Care Board) has approved our request for health data

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Results of Soil Investigation

- Documentation to be published on Havering Council website
  - Summary Report
  - Full Technical Report
  - Data Appendices

  Will be shared with Mark/Shaun and Landowner

- Tonight's overview presented by
  - Laura Legate
  - Environmental Director, GESL

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Fires

- No fires since last public meeting
- LFB attended fires 19 times in 2023 (to date)
  - Twice in July, 17 times in August, none since
  - Four calls during Sept but found no fires
  - Pattern is that fires more likely during summer
- Council (with partners) assessing risk to health posed by fires
  - However, fires (smoke content etc.) likely to be gateway to the most significant health risks

Health Risk Assessment

- Fires and public health
- Soil analysis
- Expert technical group
- Environmental Research Group
- Breathe London
- Air quality monitoring thresholds
- Arnold's Field air quality data

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Medical research on air pollution shows:

- Air pollution is harmful to health
  - Short term exposure worsens existing conditions
  - Long term exposure reduces life expectancy
  - Children, people with existing conditions and older people most vulnerable.
  - Impact on health decreases as air pollution decreases but harm to health has been shown at very low levels
- Therefore anything that reduces air pollution e.g. stopping recurrent fires – is likely to improve health

LFB callouts to Arnold's Field

Year	Fire	False alarm - Good intent
2010		1
2011	4	1
2012		
2013	3	
2014	0	
2015	0	
2016	1	
2017	2	
2018	3	1
2019	11	4
2020	18	4
2021	21	2
2022	64	70
2023	19	10

Legend: Fire — False alarm - Good intent
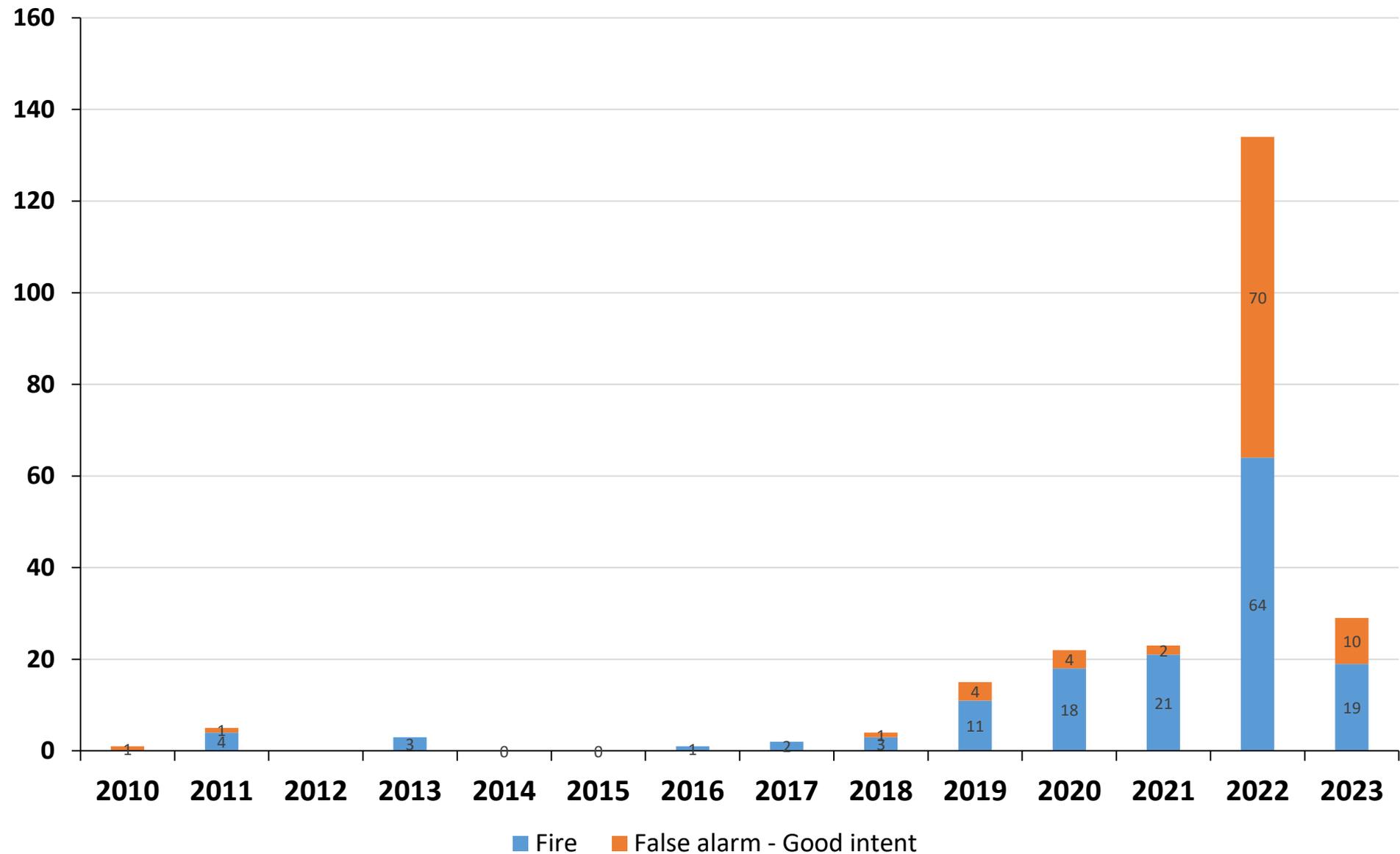
Health risk assessment – looks at 2 questions

Is air pollution in Rainham high because of recurrent fires?

- TRL is measuring specific pollutants likely to be produced by fires
- ERG Imperial measuring PM2.5 and NO2

And

Are fires having a direct impact on the health of residents?

- Data requested from NHS for epidemiological study by LBH PHS

Advises about :
- The design of the health risk assessment
- And how to select suitable contractors

Reviews the insight generated to identify:
- Contribution of fires to levels of air pollution in short/long term
- evidence of direct impacts on health of residents

Outputs to be shared with:
- local residents – via Council web page
- the 'Partners meeting'

Membership
- LBH Public Health, Public protection and Comms
- ERG Imperial
- TRL
- UCL
- UKHSA
- Env Agency
- GLA
- LFB
- Residents rep.

TRL approach

- Monitoring equipment measuring PCBs, PAHs and heavy metals installed at the Spring Farm park and the Golf course
- Monitor for up to 12 months to quantify annual exposure
- Compare against relevant UK national limits / WHO.
- Also a ring of B-tex tubes measuring VOCs at the park and golf course plus 8 other sites around Arnolds Field
- Received raw data – awaiting 1st interim reports (exact format TBC)

- All London boroughs have existing relationship with Environmental Research Group (ERG) from Imperial College London who maintain network of reference monitoring sites plus AQ nodes measuring particulates and NO_2.
- Data are presented in more or less real time on Breathe London website.
- Council agreed to put further nodes around Arnolds Field
- Residents bid for and received an additional node

Additional ERG AQ nodes measuring NO_2 and particulates installed in residential areas closest to Arnolds Field
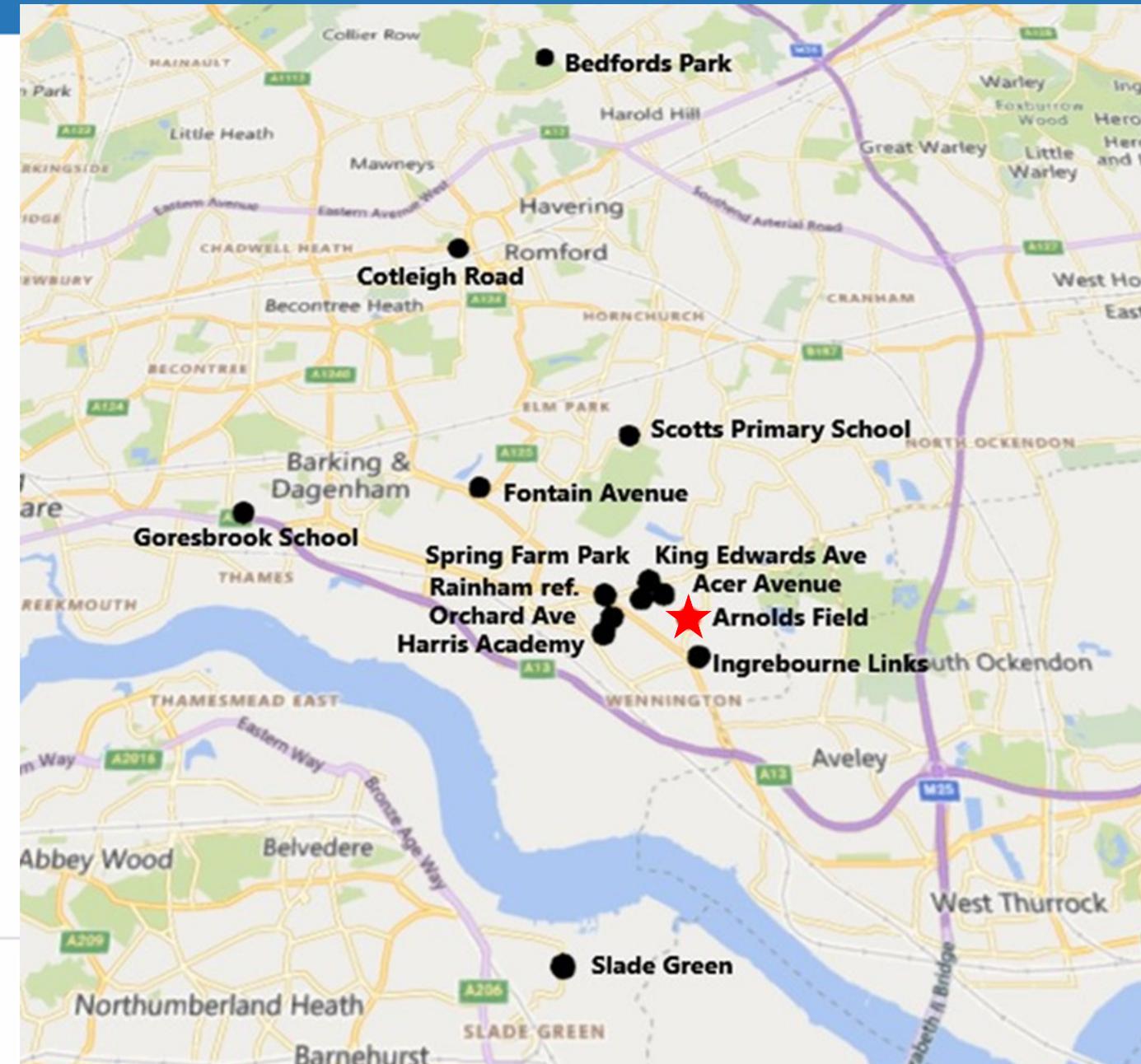
- **Particulate matter (PM)** is everything in the air that is not a gas.
- Produced by industry, traffic, woodburning plus natural sources
- A huge variety of chemicals and materials, some toxic
- Due to small size, PM2.5 can penetrate throughout lungs where toxins can enter the bloodstream.
- Irritates airways, triggers inflammation and asthma attacks, worsens symptoms of COPD and CVD
- In long term causes COPD, CVD, lung cancer, dementia

- **Nitrogen dioxide** (NO2) is a toxic gas in the air
- Produced by burning fossil fuels (traffic) and industry
- Irritates airways, triggers inflammation and asthma attacks, worsens symptoms of COPD

Assessing levels of air pollution – DAQI

Daily air quality index - designed to assist UK residents to understand how AQ might impact on short term health so we can make decisions about day to day life.

Band	Index	PM2.5 (24 hour mean µg/m3)	Nitrogen dioxide (1 hour mean µg/m3)
Low	1	0-11	0-66
	2	12-23	67-133
	3	24-35	134-200
Moderate	4	36-41	201-267
	5	42-46	268-334
	6	47-53	335-400
High	7	54-58	401-467
	8	59-64	468-534
	9	65-70	535-600
Very High	10	>71	>601

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June 2023 - PM2.5 Particles Level (Index) by Node Site (Daily)

Approx. distance from Arnolds Field	Site Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
0.5 km N	Acer Avenue	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
1 km N	King Edwards Ave	1	1	1	1	1	1	1	1	2	2	2	3	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
1.2 km NW	Rainham ref.	1	1	1	1	1	1	1	1	1	2	2	3	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
3 km N	Scotts Primary	1	1	1	1	1	1	1	1	2	2	2	3	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2	1	1
3 km SW	Slade Green	1	1	1	1	1	1	1	1	2	2	3	3	2	2	2	2	3	2	1	2	1	2	2	1	1	1	1	1	2	1
3.6 km W	Fontain Avenue	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
6.5 km W	Goresbrook School	1	1	1	1	1	1	1	1	2	2	2	3	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
7 km N	Cotleigh Road	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
10 km N	Bedfords Park	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1

Based on the daily mean concentration for historical data, latest 24 hour running mean of current day

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August 2023 - PM2.5 Particles Level (Index) by Node Site (Daily)

Approx. distance from Arnolds Field	Site Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
0.5 km N	Acer Avenue	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1	2
1 km N	King Edwards Ave	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1
1.1km W	Orchard Avenue									1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1
1.2 km NW	Rainham (reference site)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1
1.2 km	Spring Farm Park	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	3	1	2
1.3km W	Harris Academy	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1
1.8 km	Ingrebourne Golf	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1	1	1	1	3	2	10	1
3 km N	Scotts Primary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1
3.6 km	Fontain Avenue	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7 km N	Cotleigh Road	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1
10 km N	Bedfords Park	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1

Based on the daily mean concentration for historical data, latest 24 hour running mean of current day

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August 2023 PM2.5 Particles Level (Index) by Node Site (Hourly)

Legend	PM2.5 - 1 hour mean µg/m3)

0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300

Approx. distance from Arnolds Field	Site Name
0.5 km N	Acer Avenue
1 km N	King Edwards Ave
1.1km W	Orchard Avenue
1.2 km NW	Rainham (reference site)
1.2 km	Spring Farm Park
1.3km W	Harris Academy
1.8 km	Ingrebourne Golf
3 km N	Scotts Primary
3 km	Slade Green
3.6 km	Fontain Avenue
6.5km W	Goresbrook School
7 km N	Cotleigh Road
10 km N	Bedfords Park

Hourly average PM 2.5 concentration at Ingrebourne Links G&CC

August

September

October

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20 µg/m3 ········ UK limit

10µg/m3 ········ UK target

5 µg/m3 ········ WHO limit

········ safest level
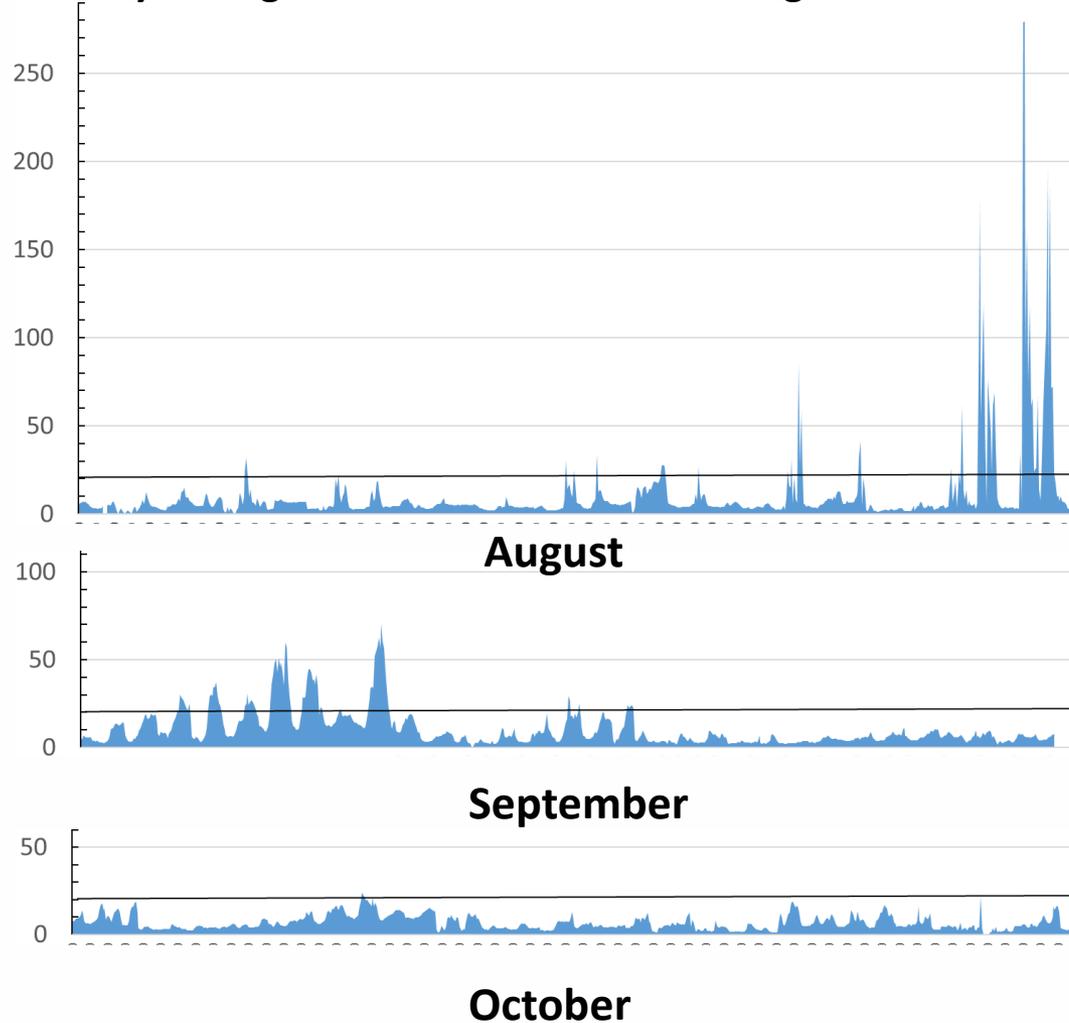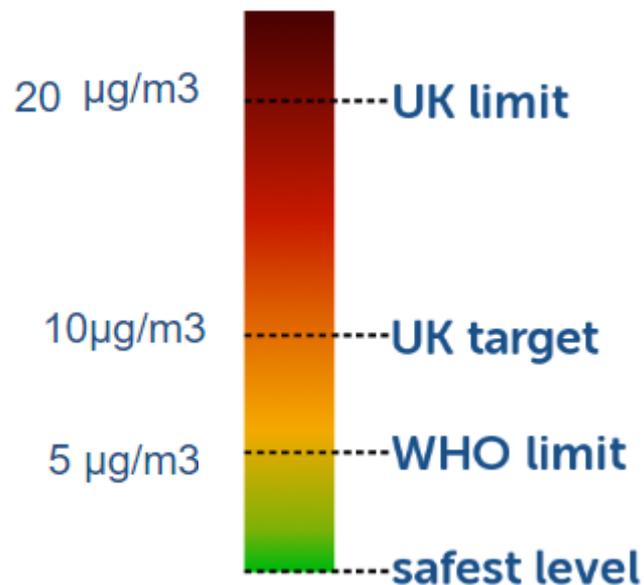
Dirty air affects 97% of UK homes, data shows

Slough, London and Leeds among worst locations on map showing air pollution above WHO limits

- **Check the pollution levels at your address on addresspollution.org**
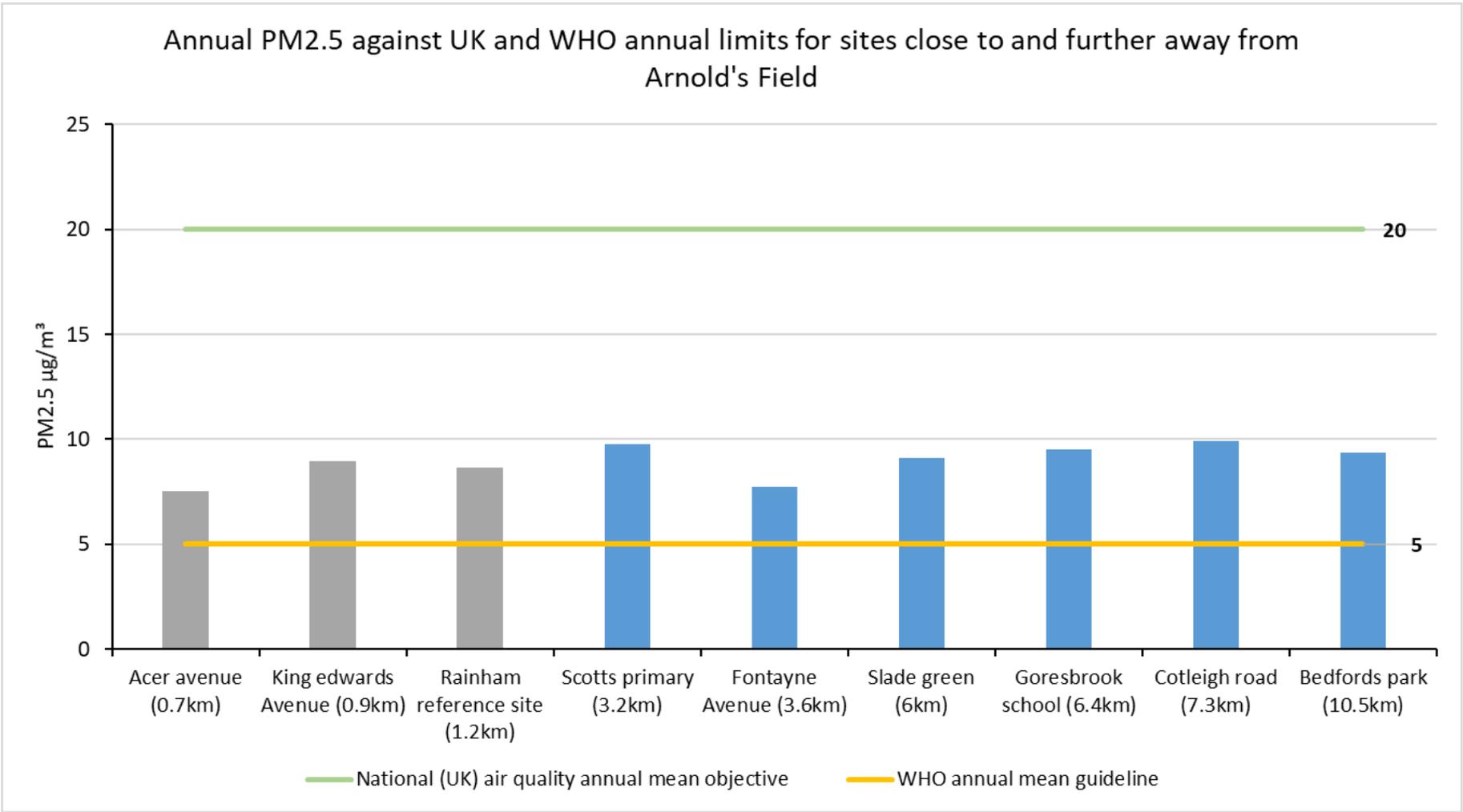
Bars in grey show the sites closer to Arnolds field

Current view based on interim air quality data

Fires cause very large but short lived peaks in particulates and NO2

Likely to have immediate effect in terms of respiratory symptoms and residents would be advised to minimise time outside during fires particularly people with existing health problems

In absence of fires, air quality similar to elsewhere – meets UK limits but well above WHO recommendation

Planning Position – 1

- Discussion underway on a pre-application basis with site owner and their representatives

- Further meeting in July 2023

    o Site is within the Green Belt

    o Extensive hard surfacing, outdoor storage and large buildings proposed – this would cause significant harm to the Green Belt

    o Main Planning Issue – Sufficient "very special circumstances" (VSC) need to be demonstrated to overcome Green Belt harm

    o We have needed to understand more about the condition of the land to assess whether remediation is a) needed, b) can be achieved and c) what weight could be applied in any VSC case

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Planning Position – 2

- Follow up meeting offered in October 2023

- Response received that owner would wait for site investigation results

- Correspondence from owner's agent received this week setting out their view on position and what they consider to be VSC – response/ meeting to be arranged

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Planning Position – 3

- Current Planning Position:
  - Removing/managing the material on site causing fires does not require planning permission
  - Fully removing the unlawful material deposited on site to comply with Enforcement Notice does not require permission
  - Either could have been carried out at any time and can be carried out by the owner now
  - No planning application for development of the land has been submitted so, at this stage, only advice can be offered (not any reassurance on the outcome of any formal application when submitted)
  - Comprehensive redevelopment is not needed to make the site safer, lesser steps can be taken

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Next Steps – 1

- Will now review all the evidence available

- Report to be examined in detail, health data collated, relevant legal opinion sought and a plan of action developed

- Primary aim is to cease/minimise health risks

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Next Steps – 2

- A range of matters and options will be considered and these may include legal action (enforcement or injunctive)

- Publish main and summary GESL reports

- Pursue implementation of report recommendations

- Explore other actions (eg. smoke/odour monitoring)

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