OBLEC
OLD BASING & LYCHPIT
ENVIRONMENT CAMPAIGN

CONCERNS REGARDING INCLUSION OF SITE SPS5.6 'LAND EAST OF BASINGSTOKE' IN LOCAL PLAN

A response, with executive summary, by OBLEC on behalf of residents of Old Basing, Lychpit & surrounding areas

Accompanying 4.5 min drone tour of SP5.6 illustrating its constraints

(note produced when site ref was SS3.6 and adjacent site SS3.7 included in Plan)

EXECUTIVE SUMMARY

- The Old Basing & Lychpit Environmental Campaign (OBLEC), with community endorsement, started in January 2023. At the time of report submission, it has operated for 12 months.
- Run by volunteers, it seeks to support evidence-based decisions regarding developments in the Loddon Valley (https://oblec.org.uk/).
- OBLEC here presents evidence that it asks Basingstoke and Deane Borough Council (B&DBC) and others to account for when considering the suitability of site SPS5.6.

How OBLEC generated this report

- Working groups sought evidence to answer questions on what impact the development of SPS5.6 would have for:
  1. HEALTH & WELLBEING OF FUTURE RESIDENTS
  2. FLOODING
  3. HISTORIC ENVIRONMENT
  4. ACCESS & TRANSPORT
  5. BIODIVERSITY & ENVIRONMENT

- In gathering evidence, OBLEC drew on community knowledge, official data, and residents' skill sets (including ecologists, biologists, listers, academics, photographers).
- The evidence sought was guided by the National Planning Policy Framework (NPPF, 2023).[1] It states the important factors to account for in considering developments.

Report structure

- With brevity in mind, for each of the 5 questions OBLEC has generated a single page sharing the key evidence it secured and considerations that arise.
- Each starts with a reminder as to what the NPPF states. Appendices, with additional information are provided as necessary, as are references.

Headline findings from report:

- Evidence indicates SPS5.6. has significant site constraints, challenging the suitability of its development. Should development proceed, the following would likely occur:

1. HEALTH & WELLBEING OF FUTURE RESIDENTS:	• **exposure of future residents to elevated levels of harmful pollutants** (nitrogen dioxide from incinerator) • **intolerable odour and noise nuisance to future residents** (from sewage works, incinerator & lorries)
2. FLOODING:	• **increase number of households with infrastructure at risk of flooding** (flood zones 2 & 3 present on site) • **reduce wider communities flood resilience** (by encroaching on flood plains & increasing 'run off')
3. HISTORIC ENVIRONMENT:	• **threaten setting and conservation of heritage assets** (including scheduled monument & listed buildings)
4. ACCESS & TRANSPORT:	• **negative impacts on existing communities due to traffic** (via 'bus gate' & single point of road access)
5. BIODIVERSITY & ENVIRONMENT:	• **substantial biodiversity loss** (25 endangered or protected species supported by site); • **worsening of river water quality** (via pressure on failing sewage infrastructure discharging into Loddon) • **reduce public access to open countryside** (by destroying vistas of walks top rated by public)

ORIENTATION: LOCATION OF SITE SPS5.6 AND PROPOSED PLANS FOR IT:

- SPS5.6 ('Land East of Basingstoke') is a greenfield site within the parish of Old Basing and Lychpit.
- It is allocated for ~900 houses. FIGURE 1 shows its location in the borough. FIGURE 2 summarises plans for it.
- The site has previously been referred to as SPS3.6 and also OLD001.

FIGURE 1 Location of SPS5.6 (red boundary) in borough

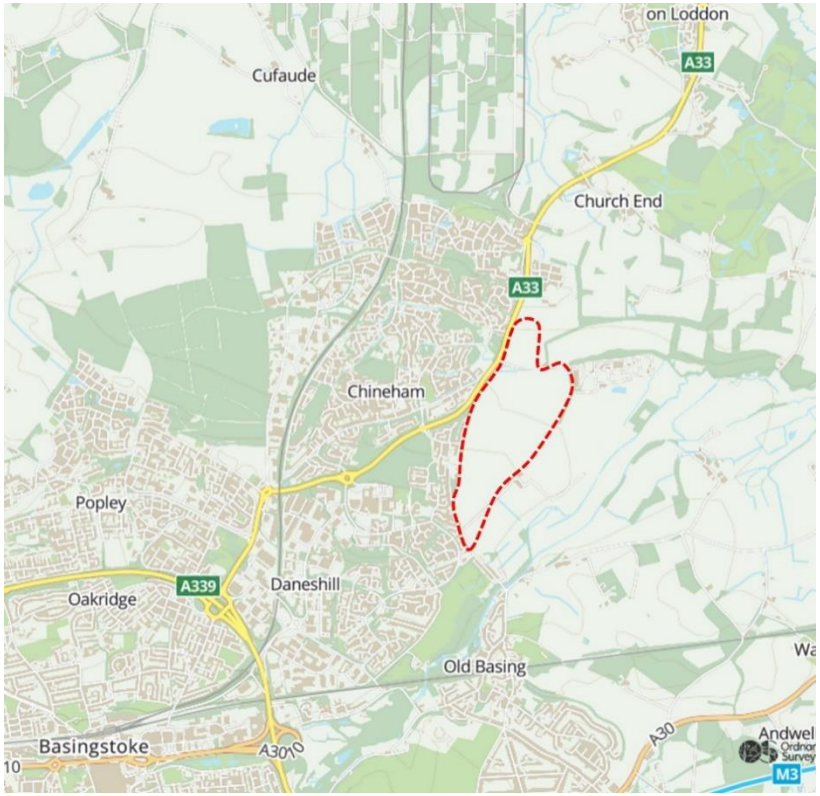
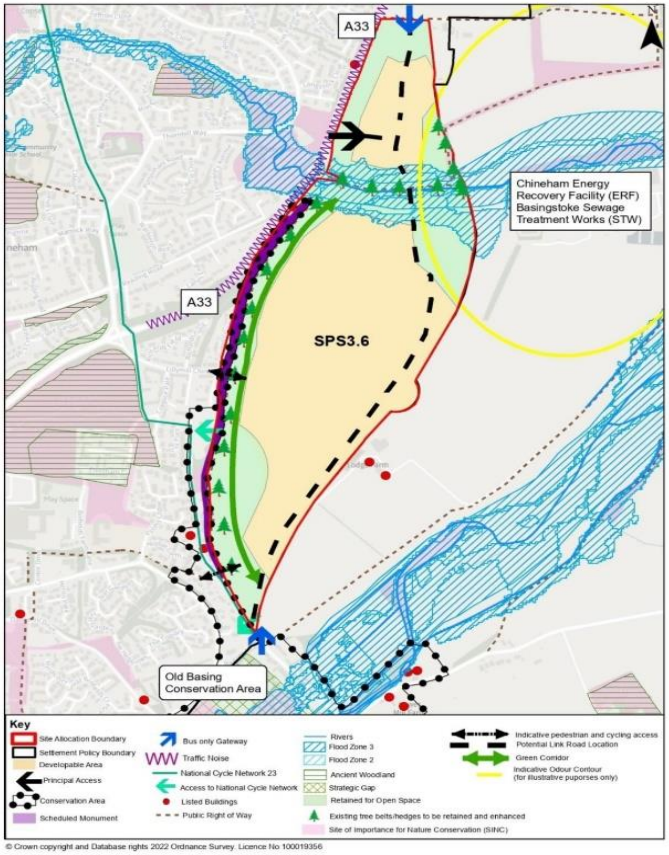


FIGURE 2 Draft plans for site as presented to B&DBC Cabinet on 9/1/2024



QUESTION 1) HEALTH & WELLBEING OF FUTURE RESIDENTS

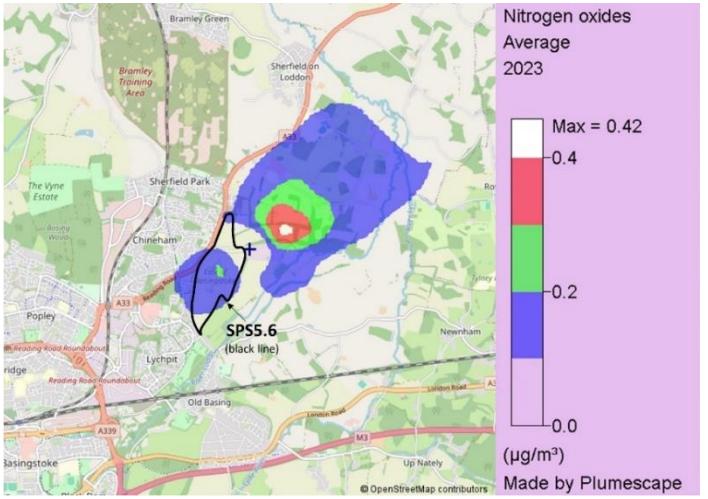
The NPPF (2023) says planning policies and decisions should ensure that developments:

- Create places that are safe, and which promote health and well-being (NPPF135f);
- Prevent residents from being put at unacceptable risk from, or being adversely affected by, unacceptable levels of air or noise pollution (NPPF180e).

What will likely happen if proposal proceeds:

- Housing would be immediately next to:
  1) Basingstoke incinerator (Veolia); 2) Basingstoke sewage Works (Thames Water).
- This likely contravenes NPPF130F as the incinerator and sewage works were intentionally built away from housing due to anticipated noise, odour, and health impacts.
- Future residents would be exposed to elevated pollutants. Plotting the incinerator's plume indicates residents would be exposed to additional nitrogen dioxide (NO_2). It is incumbent on authorities to exercise greater caution given NO_2's harms (see APPENDIX A for report).
- SPS5.6 would fail to meet the World Health Organisation's [2] recommended air quality.
- Even houses towards south of site would be exposed to elevated pollutants, challenging the viability of 'mitigation'. See animation: https://plumeplotter.com/chineham/chineham.mp4
- OBLEC requested information on odour/noise complaints from Veolia and Thames Water. No response was received.
- OBLEC thus ran a Facebook 'flash poll' for 10 days (10/2023) of Sherfield on Loddon, Old Basing & Lychpit residents. *"Between 2021 and now, have you noticed an unpleasant odour and/or a noise nuisance likely coming from the Chineham sewage works and/or incinerator?" N=61 people responded.* Despite living further away from the proposed housing, 61% selected "Yes, definitely" and 23% "Possibly". Only 10% selected, "No, never" (see APPENDIX B for further details).
- Full assessment of pollutants and nuisances from incinerator, sewage works, *and* their lorries is needed. Any developer 'commissioned' reports must be scrutinised by third-party experts.

Images: Sewage works and incinerator next to SPS5.6 & a plot showing that pollutants from incinerator are deposited over most of SPS5.6



Credits: T, L-R C Hawkins; B, Ashley (Plomplotter)

QUESTION 2) FLOODING

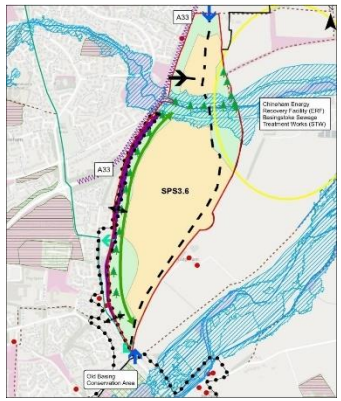
The NPPF (2023) says to meet the challenge of climate change and flooding:

- Inappropriate development in areas at risk of flooding should be avoided (NPPF165);
- Plans should take a proactive approach to mitigating and adapting, and account for long-term implications of flood risk (NPPF158);
- Safeguard land from development that is required, or likely to be required, for current or future flood management (NPPF167b);
- Take account of advice from the Environment Agency and other relevant flood risk management authorities (NPPF166).

What will likely happen if proposal proceeds:

- Create 900 houses with infrastructure at high risk of flooding since the houses one and only point of road access crosses the flood zone of Petty's Brook (Zones 2 & 3). This could prevent vehicular access.
- Development would also increase flood risk to wider community by creating 'runoff' and contributing to drainage problems. Concrete and tarmac will be an inevitable feature of development.
- Environment Agency previously rejected site's development due to risk.
- Development of site conflicts with Hampshire County Council's Loddon Catchment Flood Management Plan. It supports buffers around, and protection of, flood plains.[3]
- 2015, B&DBC planners did not recommend site for *"allocation given high flood risk implications"*.[4] Stipulation within Local Plan that SUDs are included does not change this.
- Residents have since shared images of regular flooding not even reflected in current flood risk assessment of site (see adjacent images). This officially unacknowledged flooding has been seen:
  a) on west of the site onto neighbouring Lillymill Chime; and
  b) middle of the site.

Images: Official high flood risk rating of site; images of additional unaccounted for flooding







Credits: T L-R BDBC Cabinet pack; J Banks; L Bielby; B L-R L Bielby; C Hawkins; J Banks

QUESTION 3) HISTORIC ENVIRONMENT

The NPPF (2023) says heritage assets are an irreplaceable resource and should be conserved by:

- Ensuring developments are sympathetic to local character and history (NPPF135c);
- Providing clear, convincing justification for any harm to them via alteration, destruction, or development within their setting (NPPF206);
- Substantial harm to scheduled monuments should be *wholly* exceptional (NPPF206b). Substantial harm to grade II listed buildings should be exceptional (NPPF206a);
- Non-designated heritage assets of archaeological interest should be considered subject to policies for designated heritage assets (NPPFnote 72);
- Developments being appropriate for location, sensitive to site and wider area (NPPF84e).

What will likely happen if proposal proceeds:

- Risk of substantial harm to range of heritage assets. Site contains or abuts a:
  i. Scheduled Monument (Pyotts Hill entrenchment)
  ii. 2 listed buildings (see APPENDIX C for further details)
  iii. Roman Road
  iv. Suspected Roma villa.
- These assets' setting would be 'mutated' to that of a modern town.
- Consideration of their protection from building *and* site occupation is inadequate.
- 2016, proposal for 9 houses near Pyotts Hill entrenchment rejected.[5] Why? Historic England stated its rural character *"would be eroded by…encroachment of housing"*[6]
- Immediately to site's west is Old Basing Conservation Area.[7, 8] Its character would be harmed by scale and prominence of development (including proposed 3 storey buildings).
- 2013, borough rejected developing the site as it *"would extend Basingstoke into an area where it shouldn't be going"*.[9]
- Scale of development is large; 900 houses is a third of the parish of Old Basing & Lychpit.
- Proposal for development to run length of site means Old Basing & Lychpit's boundary would be eroded. This, and SPS5.6's topography means, 'screening' is not viable.

Image: Location of key heritage assets on and near site

Red zone= Scheduled monument; Blue markers= Listed buildings; Orange zone= Conservation area; Dashed line= Roman road (course of)

Credit: Historic England/ Bluesky International (with amends)

QUESTION 4) ACCESS & TRANSPORT

The NPPF (2023) says planning policies and decisions should ensure that development:

- Does not have an unacceptable impact on local roads (NPPF89);
- Allows for the efficient delivery of goods, and access by service and emergency vehicles (NPPF116d);
- Are prevented or refused on highways grounds if it creates an unacceptable impact on highway safety, or if residual cumulative network impact is severe (NPPF115).

What will likely happen if proposal proceeds:

- Impact on 'at capacity' highways, furthering congestion and 'rat-running.'
- Site has one point of road access for up to 900 houses (&~1800 cars). Namely, onto A33 from north-west. This contributed to B&DBC's 2013 rejection of site.[10]
- Development would impose 'bus gate' onto village of Old Basing via a 'blind' corner of Pyotts Hill (see images; ironically road signs missing due to accident).
- 'Bus gate', and any other 'road modernisations', would diminish Old Basing's unique village character.
- 'Bus gate' creates risk of abuse by motorists seeking shortcut, exacerbating 'rat-running'.
- Criticisms abound regarding 'bus gates' in borough. Cllr. Minas-Bound at B&DBC EPH committee (28/9/23) stated: *"We have one in Rooksdown…They are a complete failure…Any site that relies on them to manage something [will] never deliver the promise."* [11]
- Four 'bus-gates' currently exist in borough (see APPENDIX D for further details). The images adjacent show abuse at them captured in a 10-minute observation period by OBLEC. If an ANPR camera is proposed to 'guard' gate, it should be for perpetuity *and* binding clarity secured with County Council on responsibility for it to avoid repeating failures seen elsewhere in borough.[12]
- Some residents of new housing likely to park on Pyotts Hill to reduce travel times.

Images: 'Blind' corner in Old Basing proposed as exit for 'bus gate' from site

Images: Abuse (without penalty) seen at existing 'bus gates' in borough

Norn Hill 'bus gate *Alencon link 'bus gate* *Hospital 'bus gate'*



Credits: T L-R Google Maps, F Biermann; B L-R A Noble

QUESTION 5) BIODIVERSITY & ENVIRONMENT

The NPPF (2023) says developments should contribute to and enhance the natural and local environment by:

- Safeguarding local wildlife-rich habitats and networks (NPPF185a);
- Preventing new development from contributing to unacceptable levels of water pollution (NPPF180e);
- Recognising the intrinsic character & beauty of countryside (NPPF180b) & that undeveloped land can perform many functions (wildlife, recreation, food) (NPPF124b);
- Protect tranquil areas, prized for recreational and amenity value (NPPF191b), and enhance public access to nature (NPPF186d).

What will likely happen if proposal proceeds:

- Destruction of habitat which provides for 25 protected and/or endangered species present on site according to Hampshire records and Citizen Scientist data (see APPENDIX E for full biodiversity report & images).
- Housing would add pressure to borough's struggling sewage processing infrastructure, which discharges into River Loddon.
- Hamper efforts to improve Loddon's water quality. Its ecological status is often rated as 'poor'.[13] Sewage discharge is officially cited as a reason.
- Between 2018/19 and 2022 borough's sewage infrastructure discharged ~2,728 hours of raw sewage into River Loddon (see APPENDIX E).
- Forecasts of B&DBC Water Cycle Study [14] supporting housing development are unrealistic. No *reliable* processing headroom exists.
- Open countryside and vistas would be destroyed, eroding public access to nature. Site features in Basingstoke's 'top walks' as rated by public.[15]
- Potential for developer to obfuscate environmental impact by: 'gaming'; selective reporting; ignoring habitat networks; short-term mitigation.[16]
- Removal of productive arable land and threaten thriving livery business on currently rural adjacent fields which use farm track currently cutting across SPS5.6.

Images: Vistas that would be destroyed from development; Productive land that would be built on; Images of wildlife taken on/or near SPS5.6 (slow worm, on site; adder, near site's boundary)

Credits: T L-R: B.Perkins (alltrails), A Johnston; E. Hayes; B. L-R: E.Parker (alltrails), S.Britt, A Johnston)






APPENDIX A An examination of the potential for residents of houses on SPS5.6 to be exposed to elevated levels of pollution from Chineham incinerator

INTRODUCTION

The Chineham incinerator (operated by Veolia) was intentionally built away from housing due to potential threats to health and other nuisances. The Local Plan now proposes to build houses next to it. Hampshire County Council has so far failed to adequately consider to what extent harmful pollutants emitted by the incinerator occur in the areas proposed for housing. No minimum distance from the incinerator has been alluded to within draft proposals for the site.

OBLEC thus engaged Plume Plotter (https://plumeplotter.com/) to determine whether harmful pollutants from the incinerator do deposit themselves within site SPS5.6 and, if so, where and by how much. In making their calculations, the size of the incinerator's chimney, its emission rates, and local terrain and weather were accounted for.

The pollutant selected for prediction was nitrogen oxides (NO_x). It was chosen as it is known to be emitted from incinerators, is reported by Veolia and because one of the key gases in this class, nitrogen dioxide (NO_2), has particularly detrimental health effects. The Environment Agency estimates NO_x emissions from stacks result in a conversion rate to NO_2 of ~70% over the long-term.[17]

The effects of NO_2 include, but are not limited to, the aggravation of respiratory conditions and increased susceptibility to them.[18] Those most vulnerable within society – such as those with asthma, children and the elderly – are generally at greatest risk of NO_2. Both short- and long-term exposure are associated with harm. Due to accumulating evidence that even low levels of exposure can be harmful to human health,(e.g.,[19]) the World Health Organisation (WHO, 2021) advise strict limits on its presence in our air. They recommend that over a year the average level for a location should not exceed 10 $\mu g/m^3$.[2] The UK government is considering implementing these levels [20] since they are widely considered to best reflect the latest evidence on NO_2's harmful impact.[21]

METHODS

Using the software AERMOD, the ground-level concentration of NOx from the Chineham incinerator over 2023 was predicted and represented in the form of a plot showing where the additional NOx emitted from the incinerator would be expected to fall. Different colours represent different predicted increases in ground-level NOx concentration.

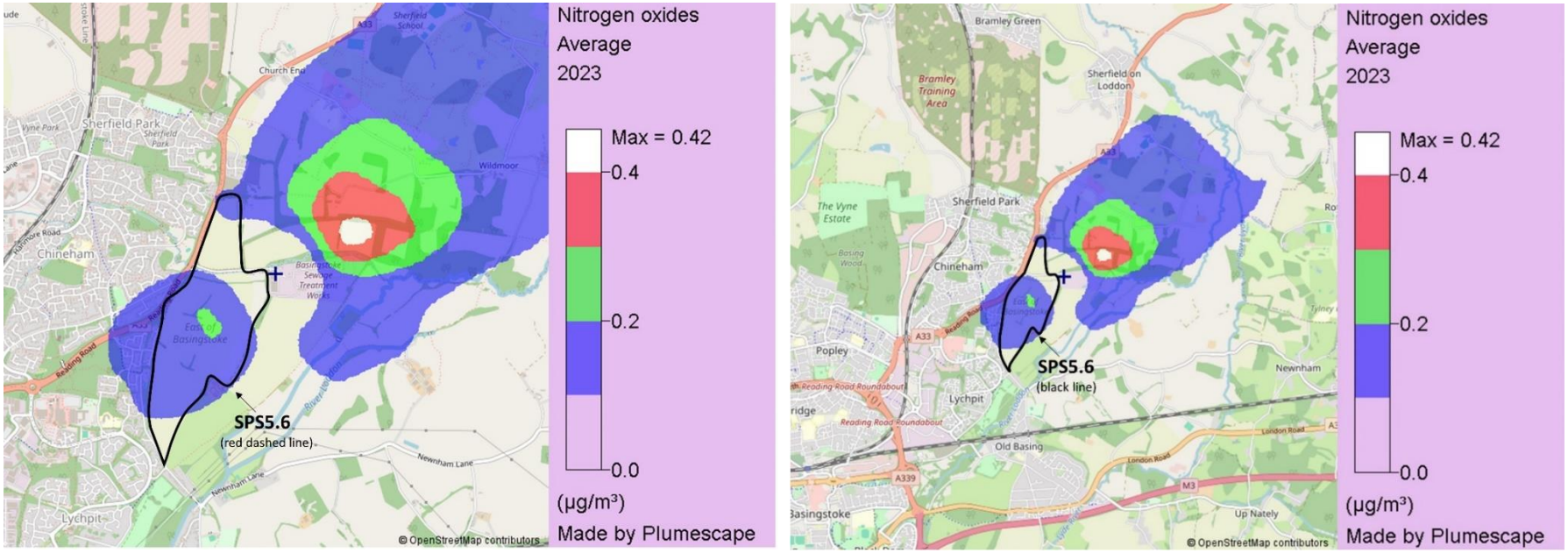
To make its prediction, AERMOD was provided with several parameters of the emission source, including stack location (51.2926,-1.03712), height (65 m), diameter (1.2 m), gas exit velocity (20 m/s) and stack gas temperature (125°C). This was taken from information published by Integra North Energy Recovery Facility (https://plumeplotter.com/chineham/documents/emissions.pdf). The software was also provided with actual emission rates reported by Veolia for 2022 (latest available at the time).[22] The average emission rate for oxides of nitrogen was 2.726 g/second.

To account for the influence of weather, AERMOD was supplied with hourly weather observations for 2023 (wind direction; speed; temperature; pressure; solar radiation; and cloud cover). The weather data was from Farnborough's weather station (since it is nearby and has a similar elevation to the incinerator)[23]. For instances when any data was

missing, readings from Odiham station were used. AERMOD also requires parameters of the area near the emissions source. The following were used: Albedo, 0.2764; Bowen ratio, 0.794; Roughness length, 0.0725.

An animation of the predicted hourly concentrations was generated, as was a fixed plot showing the annual predicted average concentration in 2023. On the plot, the approximate boundaries of site SPS5.6 are superimposed to enable an assessment of the extent to which air quality for residents of the proposed housing would be reduced. To understand what percentage change any additional NOx from the incinerator equated to, evidence on the background NOx level for urban areas in Basingstoke was used. In its 2023 report, Basingstoke and Deane Borough Council reported annual mean NOx levels for 3 urban sites (i.e., Spine Close 18.5 µg/m3; Black Dam Ponds 17.9 µg/m3; War Memorial Park 12.3 µg/m3).[24] The average of these – namely, 16.23 µg/m3 – was understood to represent the background NOx level.

FIGURE A.1 Average plots of NOx fallout using 2023 weather data at two zoom levels (with SPS5.6 site boundary indicated by black line)



RESULTS

The animation of predicted NOx fallout from the Chineham incinerator plume is available here: https://plumeplotter.com/chineham/chineham.mp4

FIGURE A.1 shows the average predicted NOx fallout. Of relevance to the Local Plan is that the majority of site SPS5.6 is predicted to be subject to a consistently elevated level of NOx. Most of SPS5.6 is coloured green or purple. This equates with these parts of SPS5.6 having an average annual NOx concentration level that is either 0.3 – 0.2 µg/m3 (1.85% to 1.23%) or 0.2 - 0.1 µg/m3 (1.23% - 0.62%) higher than the background level for an urban areas in Basingstoke and Deane.

CONCLUSIONS

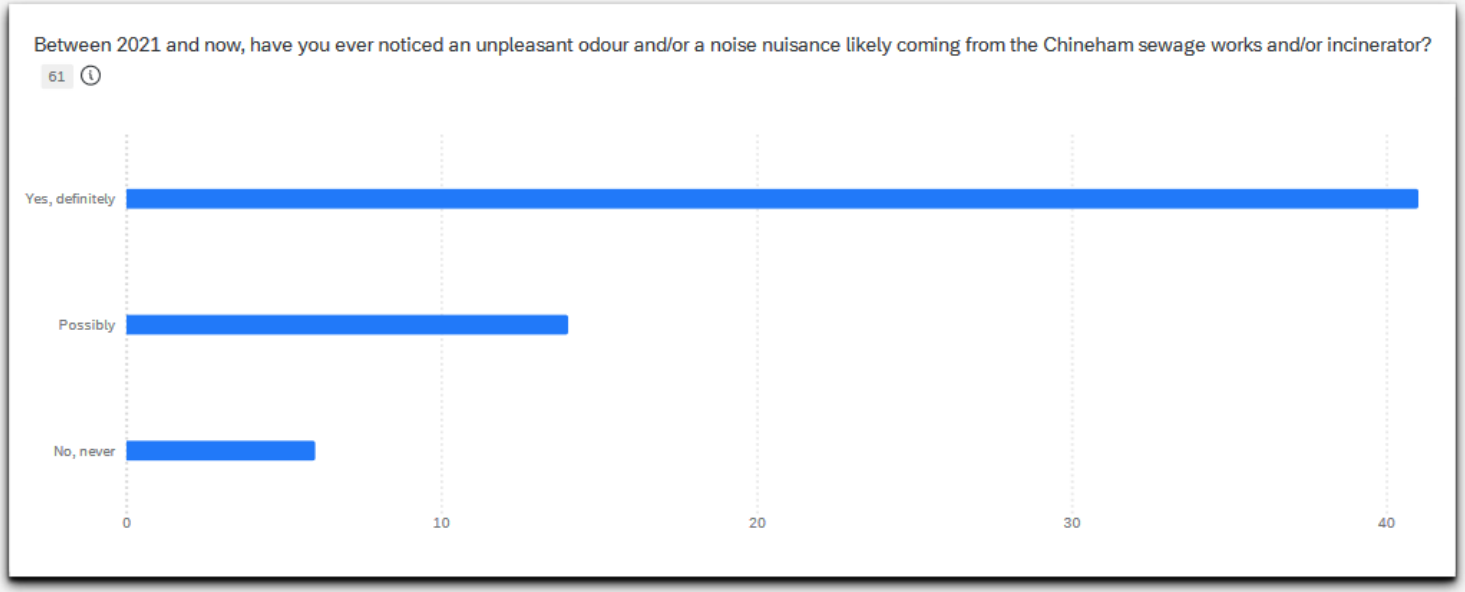
The results of this transparent investigation show most of the proposed housing for SPS5.6 and its infrastructure (including a school) would likely be subject to elevated NOx. The air quality for the residents of the site would be worse than that for surrounding areas, taking it even further away from the World Health Organisation's recommended level. Importantly, even locations within SPS5.6 that are distant to the incinerator would be expected to experience such elevated levels. This challenges the potential to mitigate any impact of the incinerator on health by 'distancing' houses within SPS5.6 from being *immediately* next to the incinerator.

Given accumulating evidence that even low exposure to pollutant is associated with detrimental health, it would be prudent to avoid building next to the incinerator. The regulatory framework surrounding air quality is evolving, as are the expectations of society.[25] It is anticipated that WHO air quality recommendations for NO_2 will soon be adopted in the UK. Exposure to elevated levels of pollutants should be acknowledged as a key constraint of site SPS5.6 and a material consideration.

Note: Plume Plotter work is not affiliated with any group or organisation, and they are not supported or funded by any organisation. All their code is publicly available and transparently reported (see https://plumeplotter.com/about.html).

APPENDIX B Details of 'flash poll' of residents further afield regarding odour/noise nuisance from Chineham sewage works, incinerator and service vehicles

- As official data on complaints could not be secured and because people may not submit formal complaints for various reasons, OBLEC completed a 'flash-poll' for 10 days in October 2023. An advert was circulated to residents on the Facebook community groups for the parishes of Sherfield on Loddon and Old Basing and Lychpit which are near site SPS5.6.
- It was not possilble to include Chineham residents (who are closest to the infrastrucutre) due to a technical issue.
- A summary of results is below. They indicate most respondents experience a nuisance to some degree, despite living further from the works than those in the proposed housing.
- Survey data is available on request from OBLEC.



Between 2021 and now, have you ever noticed an unpleasant odour and/or a noise nuisance likely coming from the Chineham sewage works and/or incinerator?

61

Q1 - Between 2021 and now, have you ever noticed an unpleasant odour and/or a noise nuisance likely coming from the Chineham sewage works and/or incinerator?	Percentage	Count
Yes, definitely	67%	41
Possibly	23%	14
No, never	10%	6
Sum	100%	61

APPENDIX C Details of heritage assets on or next to site SPS5.6

- PYOTTS HILL ENTRENCHMENT: Heritage Category: Scheduled Monument; List Entry Number: 1001924 (https://historicengland.org.uk/listing/the-list/list-entry/1001924)
- BASING LODGE FARMHOUSE: Listed Building; Grade: II; List Entry Number: 1166618 (https://historicengland.org.uk/listing/the-list/list-entry/1166618)
- BARN, 30 YARDS SOUTH-EAST OF THE HOUSE; Listed Building; Grade: II; List Entry Number: 1092864 (https://historicengland.org.uk/listing/the-list/list-entry/1092864)
- OLD TOLL HOUSE; Listed Building; Grade: II; List Entry Number: 1092865 (https://historicengland.org.uk/listing/the-list/list-entry/1092865)
- COMPTON CLOSE: Heritage Category: Listed Building; Grade: II; List Entry Number: 1339590 (https://historicengland.org.uk/listing/the-list/list-entry/1339590)
- HILL RISE COTTAGE: Heritage Category: Listed Building; Grade: II; List Entry Number: 1301276 (https://historicengland.org.uk/listing/the-list/list-entry/1301276)

APPENDIX D Location of existing 'bus gates' in Basingstoke

- There are 4 existing bus gates within the borough. Their locations are as follows:
    1) Norn Hill through to Reading Road roundabout (nearest postcode RG21 5JY)
    2) Alencon Link road in front of Festival place (nearest postcode RG21 7AQ)
    3) Eastrop Way through to Festival way and Eastrop Lane (nearest postcode RG21 4AU)
    4) Basingstoke Hospital 'bus gate' off 'The Avenue', near Prewitt Road (nearest postcode, RG24 9NB)

Note: A formal request (EIR2023/02430; 10/11/2023) was made by OBLEC to Hampshire County Council for evidence on the number of enforcement penalties issued for abuse of these 'bus gates'. It was handled under the provisions of the Environmental Information Regulations 2004. The request was declined as granular information on which locations are associated with enforcement penalties is not routinely recorded and would necessitate a disproportionate amount of officer time to retrospectively secure it

APPENDIX E Full report on potential impact on biodiversity from development and capacity of infrastructure to process sewage from it

EXCECUTIVE SUMMARY

Background

- Basingstoke and Deane Borough Council is considering draft proposals to develop 900 houses on greenfield site SPS5.6 ('Land East of Basingstoke') (FIGURE E.1).

Objective of this report:

- Provide initial estimates of potential impact on protected and endangered wildlife from proposed development.
- Provide an updated assessment of capacity of Basingstoke's sewage infrastructure to reliably process waste from additional housing.
- Help stakeholders assess the validity of communications regarding development and assumptions underlying it.

How this report was generated:

- OBLEC established a working group of volunteers. They include ecologists, biologists, listers, academics and nature photographers.
- The group secured official records of wildlife present on the greenfield site via data from the Hampshire Biodiversity Information Centre.
- They also launched a 'Citizen scientist' survey to provide additional, contemporary data on wildlife supported by the site. A total of 99 submissions were received and analysed.
- Geotagged images were sought of wildlife on the site.
- Data on the performance of Basingstoke's sewage infrastructure between 2018 and 2022 was secured from The Rivers Trust. It was used to assess the infrastructure's ability to manage additional housing.

Headline findings from report:

- Both HBIC and citizen scientist data shows legally protected and endangered species are present across the site proposed for development. A total of 25 different endangered or species with high legal protection were seen at or near the site, typically on multiple occasions. They include bats, reptiles, birds, and other mammals.
- Geotagged images evidenced endangered and protected wildlife on the site (examples are shown on page 8).
- The Rivers Trust evidence shows the borough's sewage infrastructure frequently fails, even without additional housing. It 'dumped' 2,000+ hrs of raw sewage into the Loddon.

Implications of findings:

- Development and construction of site has potential for profound wildlife and habitat destruction.
- Findings challenge developers' contention that development would 'enhance' biodiversity of site and emphasise its constraints.
- Sewage discharge data challenges assertions that the borough's sewage infrastructure has any capacity for additional local housing.

Recommendations:

- Alternative development sites should be considered.
- Should SPS5.6 still be considered for potential development, the findings from this report demonstrate the need for independent and thorough ecological expert consultation. It should measure for the presence of *every* species noted in this report to avoid development from further cementing the UK's standing as one of the most nature-depleted countries.
- An updated water cycle study is also required. It should *transparently* assess the sewage processing capacity of the borough, be *realistic* about implications if investment does not materialise, account for historical performance, and report findings in a manner accessible to non-specialists.

FIGURE E.1 Draft plans for SPS5.6

(Note: SPS5.6 was at one point referred to as OLD001; this was the notation used at the time of biodiversity investigations by OBLEC))

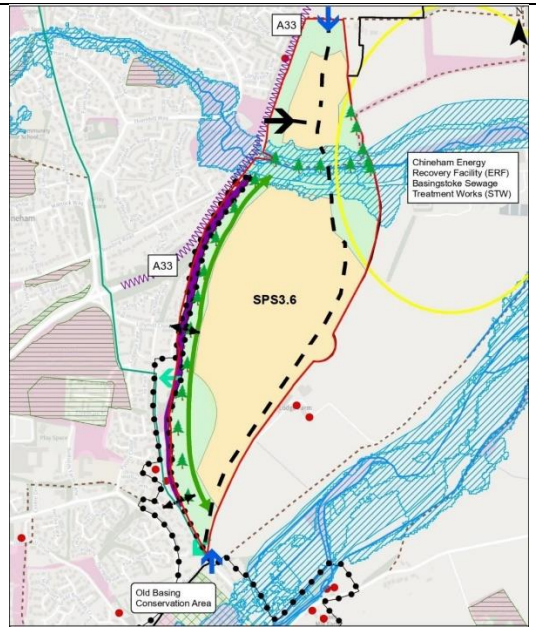


FIGURE E.2 Wildlife within or near site, given by HBIC data

(Note: Meaning of colour markers noted on pg 17)

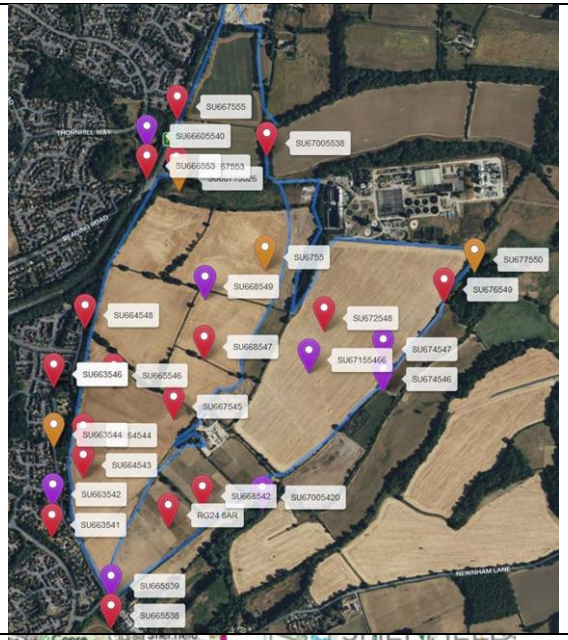


FIGURE E.3 Bats

Citizen scientist survey, final findings

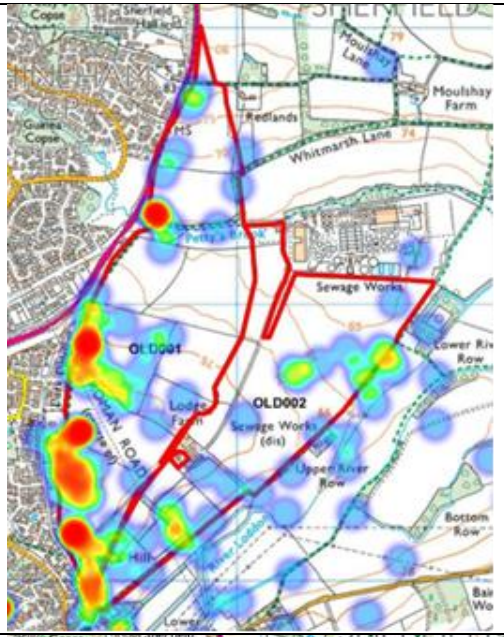


FIGURE E.4 Birds

Citizen scientist survey, final findings

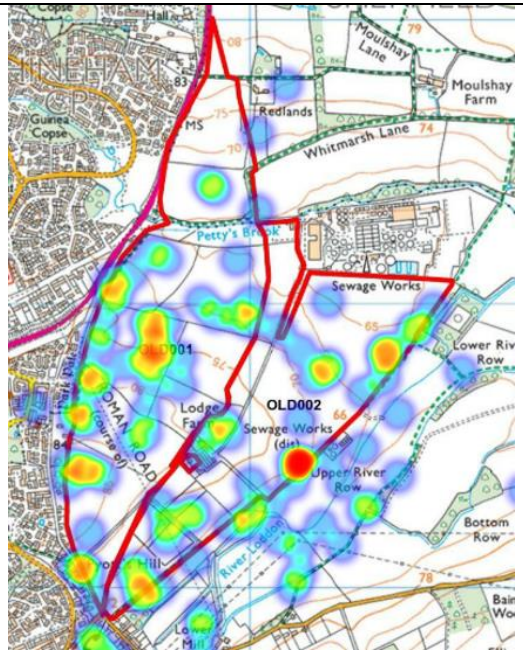


FIGURE E.5 Reptiles

Citizen scientist survey, final findings

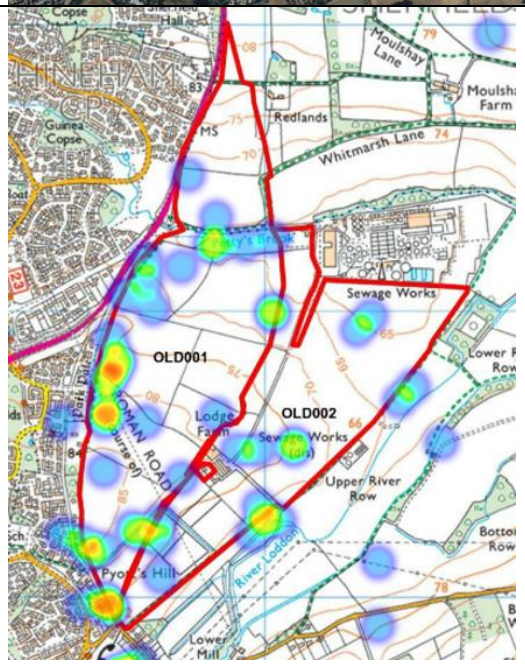
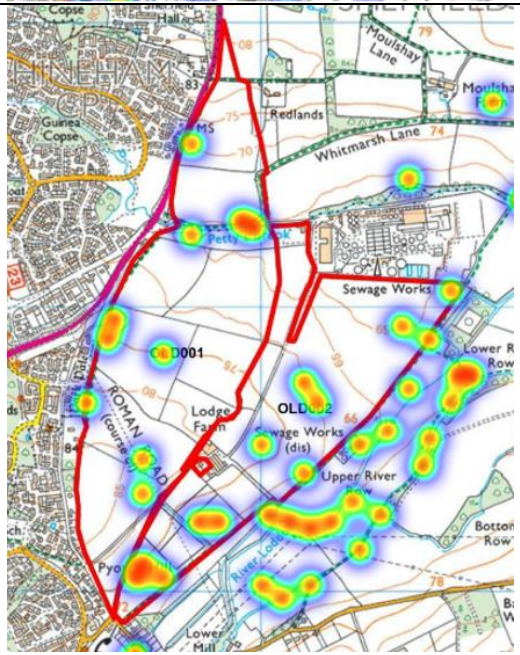


FIGURE E.6 Mammals

Citizen scientist survey, final findings



ESTIMATES OF POTENTIAL IMPACT ON PROTECTED & ENDANGERED WILDLIFE FROM PROPOSED DEVELOPMENT

1) Estimates of loss offered by routine historic data

Background

- The Hampshire Biodiversity Information Centre (HBIC) is the local environmental records centre for Basingstoke. It receives ecological data via the Habitat Survey Programme and from specialist recording groups (see https://tinyurl.com/4r6f3ypy).

Methods

- OBLEC submitted a request to HBIC for records pertaining to site SPS5.6 (and SS3.7 before it was removed from the draft Local Plan).
- Data was provided by HBIC with reference number 11841 (officer: Evie Templeman).
- A wide range of data on flora and fauna contained within the sites was provided.
- Focus here is on Sites of Importance for Nature Conservations and wildlife of special interest.

Headline findings

Nationally recognised SINCs

- The land proposed for development contains/ is immediately next to 3 Sites of Importance for Nature Conservation (SINCs) contained within the Hampshire Ancient Woodland Inventory. Namely, BD0633 Pyott's Hill Copse (32a Pyott's Hill, 0.28 ha), BD0661 Petty's Brook Strip (2.91 ha) and BD0665 Whitmarsh Lane and Piece (3.64 ha). The presence of these SINCs should be a material consideration. SINCs are known nationally as Local Wildlife Sites.

Wildlife

- To maximise confidence in the location of reported wildlife, only reports with coordinates with a precision of ≤100m were considered.
- Even with this restriction applied, there were still n=59 validated sightings on or immediately next to the site (from 1997 to 2020).
- TABLE E.1 shows the species, the number of different reports. The sightings covered n=30 different species.
- Of the species, n=20 are registered as endangered in England and/or have high levels of legal protection. The specific protections are shown in TABLE E.1's footnotes.
- FIGURE E.2 shows how the sightings were spread across the site. Red markers indicate species registered as endangered or with a high level of legal protection. Purple markers indicate locations where such species were noted multiple times.
- Note a single report does not necessarily equate with a single member of the species. It could include multiple animals being seen at the same time (e.g., a flock).

Implications

- Routine historic data signals the presence of a range of endangered species on or next to the site. Cross-referencing the sightings in FIGURE E.2 with the proposed location for housing within FIGURE E.1 shows the development risks disturbing the habitat of a plethora of endangered species.
- The data challenge the extent of green buffer currently being proposed and highlight the constraints of this greenfield site for development.
- Independent, comprehensive ecological assessments regarding the potential impact of the development on birds, bats, reptiles, and other mammals is required.

TABLE E.1 The n=30 wildlife species reported with high precision within or near site (red= endangered species and/or which has high legal protection)

Common name	Reports	Protection status
Skylark	5	Endangered [a, b]
Bullfinch	4	Endangered [a, c]
Eurasian Badger	4	Legally protected [d]
Yellowhammer	4	Endangered [a, b]
Brambling	3	Special penalties [e]
House Sparrow	3	Endangered [a, b]
Red Kite	3	Special penalties [e]
Song Thrush	3	Endangered [a, c]
Starling	3	Endangered [a, b]
Black-headed Gull	2	Amber conservation [c] Special penalties [e]

Common name	Reports	Protection status
Brown Long-eared Bat	2	Endangered [a] Legally protected [f]
Pipistrelle Bat species	2	Legally protected [f]
Redwing	2	Amber conservation [c] Special penalties [e]
Reed Bunting	2	Endangered [a]
W. European Hedgehog	2	Endangered. [a] Some protection [g]
Chiroptera Bat	1	Legally protected [f]
Crossbill	1	Some protection [g]
Daubenton's Bat	1	Legally protected [f]
Fieldfare	1	Endangered [b] Special penalties [e]
Grass Snake	1	Endangered [a] Some protection [g]

Common name	Reports	Protection status
Grey Heron	1	Some protection [g]
Grey Partridge	1	Endangered [a]
Herring Gull	1	Endangered [a]
Kingfisher	1	Special penalties [e]
Lapwing	1	Endangered [b]
Lesser Black-backed Gull	1	Amber conservation [c] Some protection [g]
Linnet	1	Endangered [b]
Marsh Tit	1	Endangered [b]
Mistle Thrush	1	Some protection [g]
Siskin	1	Some protection [g]

Notes:

[a] Listed as a rare and most threatened species under Section 41 of Natural Environment and Rural Communities Act (2006). https://tinyurl.com/bde36mu4

[b] Identified within red list of birds of conservation concern https://tinyurl.com/mrykmjjb;

[c] Identified within amber list of birds of conservation concern https://tinyurl.com/mrykmjjb;

[d] Badgers and their setts are protected by the Protection of Badgers Act 1992. https://tinyurl.com/4y9thypr;

[e] Included in SCHEDULE 1 Birds which are Protected by Special Penalties of the Wildlife and Countryside Act 1981. This includes it being an offence to recklessly disturb their nests or young. https://tinyurl.com/37jzkufa;

[f] Protected as European protected species under the Conservation of Habitats and Species Regulations 2017. This includes it being an offence to damage or destroy their breeding sites and resting places (even when not present). https://tinyurl.com/cnyp8z6z

[g] Some protection via standard provisions of the Wildlife and Countryside Act 1981. This includes it being an offence to damage or destroy the nests of species that reuse them: https://tinyurl.com/56z75zrk

2) Estimates of loss offered by contemporary Citizen Scientist data

Background

- The Hampshire Biodiversity Information Centre (HBIC) state the absence of evidence does not necessarily mean evidence of absence.
- Additional data sources are thus recommended to maximise confidence in what wildlife is present and address potential HBIC data limitations.
- Residents within the borough, familiar with the site (who may use it daily) are one such source of data. The time they spend at the site will typically be much longer than that associated with ecological surveys (which may last only a few hours). Many are also avid naturalists.
- OBLEC thus launched an online 'citizen scientist' wildlife survey. It ran for 3 months from the 19th August 2023. We report here on its findings.

Methods

- Hosted by XM Qualtrics, the survey (https://tinyurl.com/OBLEC-Wildlife) asked persons to report wildlife they saw in *and* around the proposed development site.
- To minimise burden, it focused on protected species. To maximise precision, persons were shown images of the species and asked which they had seen (or heard) on or near the site within the last 3 years (2020-2023).
- An interactive OS map allowed individuals to record where sighting/s occurred.
- Adverts to complete the survey were circulated via posters and within social media groups frequented by borough residents.
- Persons needed to provide a name and email address to participate and avoid duplicate submissions. They could upload evidence to support sightings.
- It is acknowledged that this 'citizen scientist' approach may lack precision – as not all sightings may have occurred exactly within boundaries of the proposed site. Moreover, accurate reporting depends on a person's ability to distinguish different species. It is our understanding that all observations were made from public rights of way.
- Survey data can be made available to B&DBC and any other stakeholders for scrutiny as it does at least provide important signals with regards wildlife presence.

Headline findings

- **Responses:** A total 99 complete responses were received (a further 62 partial responses were excluded).
- **Species seen:** n=14 different endangered and/or legally protected species were reported on *or* near the site at least once. This number expands if bat species are included. Five additional species not known to be supported by the site according to the HBIC dataset were identified. TABLE E.2 shows the sighting numbers.
- **Bats:** 69.7% of respondents reported at least one species' sighting. Understandably, most were not confident stating species. A total of 88 sightings were reported within or around the site. FIGURE E.3 shows a heatmap of them. Sightings were distributed, particularly common near the western boundary of the site.
- **Birds:** 63.6% of respondents reported at least one species sighting. Species included cuckoo (n=43), skylark (n=36) and yellowhammer (n=27). A total of 79 sightings were reported. FIGURE E.4 shows their locations. These were spread across the site.
- **Reptiles:** 60.6% of respondents reported sightings of at least one species. Species included slow worm (n=48), grass snakes (n=19) and adder (n=9). A total of 43 sightings occurred within or near the site. FIGURE E.5 shows the locations. They were most common along the west and south-west of the site.
- **Mammals (non-bats):** 40.4% of respondents reported at least one species sighting. Species included hazel dormouse (n=24) and badger (n=15). A total of 44 sightings occurred within or near the site. FIGURE E.6 shows the locations. Most were on the east of the site, towards the River Loddon.

Implications

- 'Citizen scientist' data corroborates *and* extends the routine HBIC data. It indicates the high importance of the site for a range of endangered and protected species.
- Sightings were reported across the site. This indicates the inevitable risks of development and site constraints.

- Independent, comprehensive ecological assessment is required. It should consider the locations of the sightings, *all* species reported and the impact of the different parts of the proposed development (e.g., habitat destruction associated with proposed bus exit from site, central road through the site).
- OBLEC is open to sharing the evidence collected.

TABLE E.2 The n=14 wildlife species (excluding bat subtypes) spotted by Citizen Scientists (at least once) in and/or near the site (red= endangered species and/or which has high legal protection)

Common name	Reports	Protection status
Slow worm	48	Endangered [a]
Bat – unspecified	45	Legally protected [c]
Cuckoo	43	Endangered [a,b]
Skylark	36	Endangered [a, b]
Yellowhammer	27	Endangered [a, b]
Hazel dormouse	24	Endangered [a] Legally protected [f]

Common name	Reports	Protection status
Water vole	22	Endangered [a]
Grass snake	19	Endangered [a]
Grey partridge	16	Endangered [b]
Linnet	16	Endangered [a,b]
European badger	15	Legally protected [d]
Common lizard	14	Endangered [a]

Common name	Reports	Protection status
Lapwing	11	Endangered [a,b]
Adder	9	Endangered [a]

Notes:

[a] Listed as a rare and most threatened species under Section 41 of Natural Environment and Rural Communities Act (2006). https://tinyurl.com/bde36mu4
[b] Identified within red list of birds of conservation concern https://tinyurl.com/mrykmjjb;
[c] A European protected species under the Conservation of Habitats and Species Regulations 2017. This includes it being an offence to damage or destroy their breeding sites and resting places (even when not present). https://tinyurl.com/cnyp8z6z
[d] Badgers and their setts are protected by the Protection of Badgers Act 1992. https://tinyurl.com/4y9thypr;

UPDATED ASSESSMENT OF CAPACITY OF BASINGSTOKE SEWAGE INFRASTRUCTURE TO RELIABLY PROCESS WASTE FROM ADDITIONAL HOUSING

Background

- Proposed housing development would place additional demands on the borough's sewage processing infrastructure.
- The sewage of the proposed houses on SPS5.6 would be processed by the Basingstoke Sewage Works.
- It discharges into the River Loddon – a rare, north flowing, salmonid chalk stream and home to Stanford End Mill and River Loddon Site of Special Scientific Interest.
- Other parts of the borough's sewage infrastructure also discharge into the Loddon.
- B&DBC previously commissioned a Water Cycle study. Published in 2022, but using data primarily from 2019, it proposed there was sufficient headroom within the borough's sewage infrastructure to process the additional sewage from the proposed housing (pg. 55 of report; https://tinyurl.com/2hk7xsdc). Its judgement is a key reason why SPS5.6 is being considered for development.
- We assessed the performance of the Basingstoke sewage infrastructure in the years following those considered by the Water Cycle Study, *without* the presence of the additional housing.

Methods

- Contemporary data on the performance of the Basingstoke sewage infrastructure discharging into the River Loddon was secured from The Rivers Trust (https://tinyurl.com/yfhzfwtv). This followed the advice of Charles Rangeley-Wilson, Chair of the Chalk Stream Restoration Group (https://tinyurl.com/35j33kej).
- Beyond the Basingstoke Sewage Works, Sherborne St. John also discharges into the Loddon via the Wey Brook tributary and Sherfield-on-Loddon does via Bow Brook. TABLE E.3 shows the sensors monitoring for discharge of raw sewage into the River Loddon from these areas.
- We also requested Environmental Flow Indicator (EFI) data for each point along the Loddon and any modelling from the Environment Agency. We await a response.

Headline findings

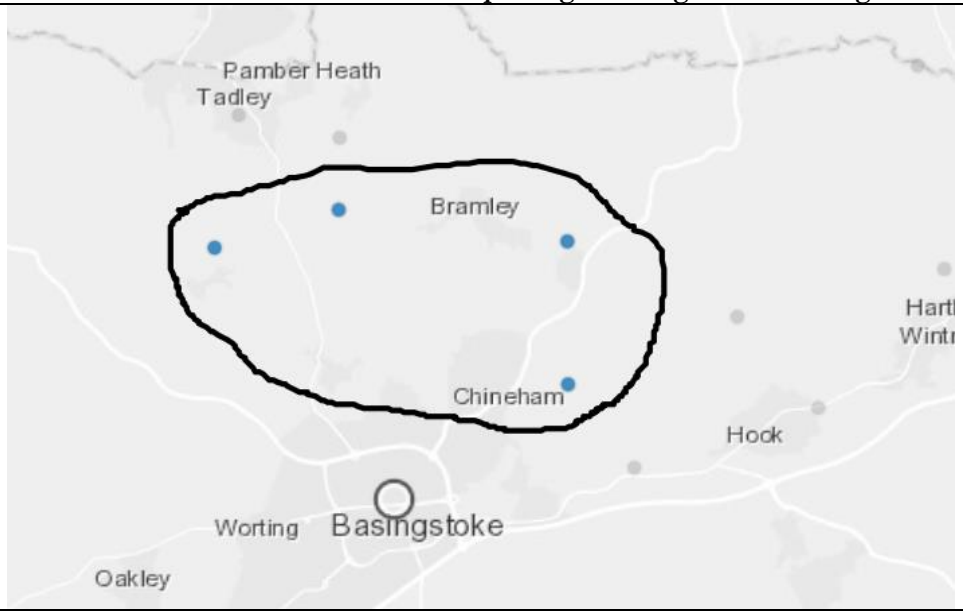
- TABLE E.3 presents the event monitoring data. It shows that between 2018/19 and 2022 the Basingstoke sewage infrastructure has, *without* the additional housing, cumulatively discharged ~2,728 hours of raw sewage into the River Loddon.
- The Basingstoke sewage works alone, discharged 473 hours of raw sewage into the Loddon.

Implications

- Basingstoke's sewage infrastructure regularly fails, even without the additional housing.
- The conclusions of the B&DBC Water Cycle Study must be challenged. There is no reliable headroom to manage the additional housing.
- An updated, independent assessment is required. It should account for the recent performance of the sewage infrastructure shown here and include 'worst case scenario' estimates to account for anticipated investment not occurring. The previous report was overly optimistic.
- We would encourage any report emerging from an updated assessment to be accessible to non-specialists. It is they who will depend on it to make housing judgements. The 2022 report was highly technical, evidence lines not always clear and conclusions unclear.

TABLE E.3 Map of sensors capturing raw sewage discharge into River Loddon and their event monitoring data from 2018/19 to 2022

Location of sensors in the network capturing discharge of raw sewage into River Loddon



Name of/ location of sensors	Hours of raw sewage discharge recorded [a]
Basingstoke Wwtw (Thames Water)	473.15
Sherfield-on-Loddon Wwtw (Thames Water) (via Bow Brook)	1258.64
Water End (Thames Water) (via Lyde River)	64.16
BS_ST STEPHENS HALL SPS (Thames Water) (via Bow Brook)	932.36
Total	**2728.31 hours**

Notes:

[a] 2018/19: https://data.catchmentbasedapproach.org/datasets/theriverstrust::event-duration-monitoring-storm-overflows-2018-19-england/explore
2020: https://data.catchmentbasedapproach.org/datasets/theriverstrust::event-duration-monitoring-storm-overflows-2020-england-and-wales/explore?location=51.274911%2C-1.028237%2C11.00
2021: https://data.catchmentbasedapproach.org/datasets/theriverstrust::event-duration-monitoring-storm-overflows-2021-england-and-wales/explore?location=51.283747%2C-0.994852%2C12.90
2022: https://data.catchmentbasedapproach.org/datasets/theriverstrust::event-duration-monitoring-storm-overflows-2022-england-and-wales/explore?location=51.293409%2C-0.991501%2C11.00

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