



**STEPHENSON
HALLIDAY**

Planning, Landscape & Environment
an **RSK** company

THURROCK LOCAL PLAN

Minerals Report

Thurrock Council

July 2026

Contents

Executive Summary	1
1 Introduction	2
2 National Minerals Policy	2
2.2 National Planning Policy Framework	2
2.3 Planning Practice Guidance	4
3 Overview of Minerals in Thurrock	6
3.1 Introduction	6
3.2 Geology	7
4 Aggregates Supply	8
4.1 Greater Essex Local Aggregate Assessment	8
4.2 Current Minerals Supply in Thurrock	8
5 Available Mineral Working Areas	10
5.2 Initial Area of Search	10
5.3 Detailed Mapping	11
6 Policy Discussion	12
7 Conclusions and Recommendations	14

Appendices

Appendix 1: Mineral Areas of Search

Document History

	Name	Date
Author	Paul Wormal and Ryan McAlister	28 April 2026
Technical Reviewer	Ryan McAlister	29 April 2026
Approved	Paul Wormald	30 April 2026
Approved Revision	Paul Wormald	22 May 2026
Approved Revision	Ryan McAlister	03 July 2026

EXECUTIVE SUMMARY

This report has reviewed Thurrock's mineral resources, existing mineral supply, and future opportunities for mineral extraction to inform the emerging Thurrock Local Plan. It considers national minerals planning policy and guidance, current planning permissions, aggregate supply requirements and the potential availability of undeveloped mineral-bearing land across the Borough.

The assessment highlights significant uncertainty regarding the future supply of land won aggregates in Thurrock. Existing permitted reserves are limited, current planning permissions for extraction are nearing expiry, no new minerals permissions have been granted, and no additional sites were promoted through the recent Call for Sites. While a small number of potentially workable areas have been identified through a detailed constraints mapping exercise, there is insufficient evidence and information to justify the allocation of Specific Sites or Preferred Areas. Moreover, the size of these workable areas are constrained by their proximity to residential, commercial and industrial development, as well as environmental designations, which provides further uncertainty over Thurrock Council's ability to deliver its land-won aggregate requirements during the plan period.

Therefore, the designation of Areas of Search has been recommended. This approach would allow appropriately supported mineral proposals to come forward and be assessed on their own merits, whilst offering a more realistic opportunity to support future mineral supply within the Borough.

1 INTRODUCTION

- 1.1.1 Thurrock Council have commissioned Stephenson Halliday to undertake a review of mineral resources within Thurrock, with the aim of providing advice to inform future minerals planning policy, identifying potential future extraction sites, and advising how such sites should be addressed should they come forward for minerals related development.
- 1.1.2 In doing so, the following work has been carried out:
- A review of the available mineral resources and mineral-related facilities in Thurrock;
 - A review of extant planning permissions for minerals-related development in Thurrock;
 - An assessment of the requirements of the National Planning Policy Framework and its associated Planning Practice Guidance in respect of minerals planning;
 - A detailed mapping exercise to review what, if any, undeveloped mineral bearing land could be available for future extraction; and
 - Provision of advice and guidance on how to best address mineral related issues in the emerging Local Plan.

2 NATIONAL MINERALS POLICY

- 2.1.1 The following national minerals planning policy and guidance has been reviewed:
- National Planning Policy Framework (December 2024)
 - Planning Practice Guidance for Minerals (October 2014)

2.2 National Planning Policy Framework

- 2.2.1 Chapter 17 of the National Planning Policy Framework (NPPF) deals specifically with minerals. Set out below are the most relevant minerals policies from the NPPF.

Facilitating the Sustainable Use of Minerals

- 2.2.2 At the outset, Paragraph 222 states that *“it is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation.”*
- 2.2.3 Paragraph 223 states that planning policies should:
- a) provide for the extraction of mineral resources of local and national importance, but not identify new sites or extensions to existing sites for peat extraction;*
 - b) so far as practicable, take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before*

considering extraction of primary materials, whilst aiming to source minerals supplies indigenously;

- c) safeguard mineral resources by defining Mineral Safeguarding Areas and Mineral Consultation Areas; and adopt appropriate policies so that known locations of specific minerals resources of local and national importance are not sterilised by non-mineral development where this should be avoided (whilst not creating a presumption that the resources defined will be worked);*
- d) set out policies to encourage the prior extraction of minerals, where practical and environmentally feasible, if it is necessary for non-mineral development to take place;*
- e) safeguard existing, planned and potential sites for: the bulk transport, handling and processing of minerals; the manufacture of concrete and concrete products; and the handling, processing and distribution of substitute, recycled and secondary aggregate material;*
- f) set out criteria or requirements to ensure that permitted and proposed operations do not have unacceptable adverse impacts on the natural and historic environment or human health, taking into account the cumulative effects of multiple impacts from individual sites and/or a number of sites in a locality;*
- g) when developing noise limits, recognise that some noisy short-term activities, which may otherwise be regarded as unacceptable, are unavoidable to facilitate minerals extraction; and*
- h) ensure that worked land is reclaimed at the earliest opportunity, taking account of aviation safety, and that high quality restoration and aftercare of mineral sites takes place.*

2.2.4

Paragraph 224 advises that “great weight should be given to the benefits of mineral extraction including to the economy. In considering proposals for mineral extraction, minerals planning authorities should:

- a) as far as is practical, provide for the maintenance of landbanks of non-energy minerals from outside National Parks, the Broads, National Landscapes and World Heritage Sites, scheduled monuments and conservation areas;*
- b) ensure that there are no unacceptable adverse impacts on the natural and historic environment, human health or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality;*
- c) ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations are controlled, mitigated or removed at source, and establish appropriate noise limits for extraction in proximity to noise sensitive properties;*
- d) not grant planning permission for peat extraction from new or extended sites;*
- e) provide for restoration and aftercare at the earliest opportunity, to be carried out to high environmental standards, through the application of appropriate conditions. Bonds or other financial guarantees to underpin planning conditions should only be sought in exceptional circumstances;*

- f) *consider how to meet any demand for the extraction of building stone needed for the repair of heritage assets, taking account of the need to protect designated sites; and*
- g) *recognise the small-scale nature and impact of building and roofing stone quarries, and the need for a flexible approach to the duration of planning permissions reflecting the intermittent or low rate of working at many sites.*

2.2.5 Paragraph 225 also advises that “*local planning authorities should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working.*”

Maintaining Supply

2.2.6 Regarding aggregates supply, The NPPF states at Paragraph 226 that “*minerals planning authorities should plan for a steady and adequate supply of aggregates by:*

- a) *preparing an annual Local Aggregate Assessment, either individually or jointly, to forecast future demand, based on a rolling average of 10 years’ sales data and other relevant local information, and an assessment of all supply options (including marine dredged, secondary and recycled sources);*
- b) *participating in the operation of an Aggregate Working Party and taking the advice of that party into account when preparing their Local Aggregate Assessment;*
- c) *making provision for the land-won and other elements of their Local Aggregate Assessment in their mineral plans, taking account of the advice of the Aggregate Working Parties and the National Aggregate Co-ordinating Group as appropriate. Such provision should take the form of specific sites, preferred areas and/or areas of search and locational criteria as appropriate;*
- d) *taking account of any published National and Sub National Guidelines on future provision which should be used as a guideline when planning for the future demand for and supply of aggregates;*
- e) *using landbanks of aggregate minerals reserves principally as an indicator of the security of aggregate minerals supply, and to indicate the additional provision that needs to be made for new aggregate extraction and alternative supplies in mineral plans;*
- f) *maintaining landbanks of at least 7 years for sand and gravel and at least 10 years for crushed rock, whilst ensuring that the capacity of operations to supply a wide range of materials is not compromised;*
- g) *ensuring that large landbanks bound up in very few sites do not stifle competition; and*
- h) *calculating and maintaining separate landbanks for any aggregate materials of a specific type or quality which have a distinct and separate market.*

2.3 Planning Practice Guidance

2.3.1 The Planning Practice Guidance (PPG) for Minerals provides national guidance to support the implementation of the NPPF policies identified above, particularly in relation to minerals safeguarding and future supply. The relevant guidance is set out below.

Safeguarding Mineral Resources

2.3.2 In relation to safeguarding mineral resources, the PPG advises that Minerals Planning Authorities (MPA) should adopt a systematic approach which:

- Uses the best available information on the location of all mineral resources in the authority area. This may include use of British Geological Survey maps as well as industry sources;
- Consults with the minerals industry, other local authorities (especially district authorities in 2-tier areas), local communities and other relevant interests to define Minerals Safeguarding Areas;
- Sets out Minerals Safeguarding Areas on the policies map that accompanies the local plan and define Mineral Consultation Areas; and
- Adopts clear development management policies which set out how proposals for non-minerals development in Minerals Safeguarding Areas will be handled, and what action applicants for development should take to address the risk of losing the ability to extract the resource. This may include policies that encourage the prior extraction of minerals, where practicable, if it is necessary for non-mineral development to take place in Minerals Safeguarding Areas and to prevent the unnecessary sterilisation of minerals.

(Paragraph: 003 Reference ID: 27-003-20140306)

2.3.3 Mineral resources are finite, and in accord with the basic principles of sustainable development, they must be protected to give future generations the best possible chance of meeting their own needs. The mineral resources within Thurrock include sand, gravel, and chalk, although the latter is not worked commercially.

2.3.4 Specifically, we are required to safeguard mineral deposits. Essex have helpfully updated the safeguarding area maps for the Greater Essex area which includes Thurrock. Mineral Safeguarding Areas (MSA) will be defined around all mineral resources in Thurrock that are considered to be of current or emerging economic importance. Mineral resources within MSA's will be protected from unnecessary sterilisation by other development. In addition to MSAs, Mineral Consultation Areas (MCA) are also defined.

Areas for Future Minerals Working

2.3.5 The PPG advises that MPAs should plan for the steady and adequate supply of minerals in one or more of the following ways (in order of priority):

1. Designating Specific Sites – where viable resources are known to exist, landowners are supportive of minerals development and the proposal is likely to be acceptable in planning terms. Such sites may also include essential operations associated with mineral extraction;
2. Designating Preferred Areas, which are areas of known resources where planning permission might reasonably be anticipated. Such areas may also include essential operations associated with mineral extraction; and/or

3. Designating Areas of Search – areas where knowledge of mineral resources may be less certain but within which planning permission may be granted, particularly if there is a potential shortfall in supply.

(Paragraph: 008 Reference ID: 27-008-20140306)

Landbanks

- 2.3.6 A landbank is the stock of permitted mineral reserves held by an MPA within a defined geographic area. It is principally a monitoring tool to provide an MPA with early warning of possible disruption to the provision of an adequate and steady supply of land-won aggregates in their particular area.
- 2.3.7 The length of the aggregate landbank is expressed in years and is calculated by dividing the total tonnage of permitted reserves with extant planning permissions by the annual rate of future production, as identified in the latest annual Local Aggregate Assessment (Paragraph: 083 Reference ID: 27-083-20140306).
- 2.3.8 Paragraph 226(f) of the NPPF defines the minimum requirement for a landbank of at least 7 years for sand and gravel and at least 10 years for crushed rock, whilst ensuring that the capacity of operations to supply a wide range of materials is not compromised. There is no maximum landbank level and each application for minerals extraction must be considered on its own merits regardless of the length of the landbank. However, where a landbank is below the minimum level this may be seen as a strong indicator of urgent need.
- 2.3.9 Currently, Thurrock has no minerals landbank that we can discern, save for any Thanet Sand which lies within an old Review of Old Minerals Permission (ROMP) site with a 2042 time horizon, which is currently dormant.
- 2.3.10 Further detailed work will be necessary to define what, if any part, of the MSA contains viable minerals. This is dealt with in Section 4 below.

3 OVERVIEW OF MINERALS IN THURROCK

3.1 Introduction

- 3.1.1 Thurrock is located to the south of Essex, on the north bank of the River Thames, immediately east of Greater London. The Borough covers approximately 165 km² and forms part of the Thames Gateway. Approximately 30 km of this area comprises a corridor of development along the River Thames which is a mix of strategic transport infrastructure, industrial activity, port-related development and wharf facilities. The northern parts of the Borough comprise extensive areas of Green Belt and agricultural land which has historically supported sand, gravel and chalk extraction, which has mentioned above is not worked commercially. The Borough is administered by Thurrock Council, a Unitary Authority, which is also the MPA.
- 3.1.2 The River Thames has long functioned as a strategic route for the transshipment and distribution of aggregates, including the landing of hard rock and marine dredged aggregate. While, marine-won minerals contribute to the Greater Essex mineral supply, Thurrock contains a limited number of active wharves that accept and process marine-dredged material.

3.1.3 These mineral resources are discussed below.

3.2 Geology

Sand and Gravel

- 3.2.1 Sand and gravel is the predominant economic mineral resource in Essex. These mineral resources take the form of superficial deposits which are typically associated with the Quaternary age, spanning some 2.58 million years ago to the present. These are recent deposits in geological terms and take the form of unconsolidated sediments which may include stream channel and floodplain deposits, beach sands, talus gravels and glacial drift and moraine.
- 3.2.2 Within Thurrock, river terrace deposits represent the predominant mineral resource and are generally located to the north, northeast and northwest of the main urban area. These deposits occur both alongside current river valleys as well as historic river channels that are now dry and are commonly associated with early paths of the River Thames and River Medway.
- 3.2.3 At present, there are three sites which permit sand and gravel extraction in Thurrock:
- Dansand Quarry
 - Medina Farm
 - Orsett Quarry
- 3.2.4 Dansand and Medina Farm Quarries are due to expire in 2026, while Orsett Quarry is believed to be inactive. These sites are discussed in further detail in Section 4 of this report.

Chalk

- 3.2.5 Several areas in the western part of Thurrock are located within a MSA for chalk. However, much of this resource is overlain by Quaternary clays and silts. As a result, the British Geological Survey (BGS) have since discounted these areas as a resource and removed them from the BGS Digital Mineral Resource Data as it is unlikely that these low value resources would be extracted if significant amounts of overburden are required to be removed.

Marine Aggregates

- 3.2.6 Marine-won aggregates landed in the vicinity of Greater Essex are predominantly sourced from the Thames Estuary Licensed Area, which comprises a seabed licensed for the extraction of marine dredged sand and gravel. While marine-won aggregates contribute to the overall mineral supply in Greater Essex, the number of facilities within the area capable of accepting such material is limited. Thurrock Wharf and Purfleet Wharf / West Thurrock, located within Thurrock, are the only active facilities capable of receiving marine-won aggregates, which together play a key role in facilitating the onward distribution of marine dredge aggregates to the sub-regional market.

4 AGGREGATES SUPPLY

4.1 Greater Essex Local Aggregate Assessment

- 4.1.1 Thurrock is part of the Greater Essex group which produces the Local Aggregate Assessments (LAA), with the latest version being published in January 2026.
- 4.1.2 Unfortunately, the national guidelines referred to at Section 2.3(d) of this document have not been updated for some time. The end time horizon for these was 2020, and it is unlikely that any figure derived from these guidelines could simply be imported into emerging policy.
- 4.1.3 Essex County Council, who in effect lead the Greater Essex area in minerals terms, have sought to address this outdated position through a working paper published in 2023 entitled “Forecasting the Need for Mineral Provision in Essex, 2025 – 2040”. In effect, they seek to address the lack of up-to-date guidelines and issues of landbank based upon rolling averages and growth allowances, and feed this into any future review.
- 4.1.4 The Greater Essex LAA, is based on data from 2024 and suggests at paragraph 1.2.9 that the apportionment for Thurrock is currently 0.14 million tonnes per annum (Mtpa) of Sand and Gravel. Unfortunately, due to confidentiality restrictions the data upon which this figure is based on, is not publicly available. Thurrock has only produced sand and gravel and no other minerals for some time.
- 4.1.5 The Greater Essex LAA records that the Greater Essex Landbank equates to 9.99 years. Further some 5.03 million tonnes of dredged aggregate is landed in Greater Essex, and there are marine licences for up to 11.48 Mtpa from the Thames and East Coast regions combined. At this rate, current estimates suggest that there is approximately 22 years of primary marine aggregate permitted for extraction in the Thames Estuary.
- 4.1.6 In relation to housing growth within Thurrock, the Greater Essex LAA, at paragraph 2.3.33, states the following position:
- “There is significant housing development currently planned, programmed or under-construction within Greater Essex. It is however considered that there has been on-going housing development for the entirety of the previous 10-years, and as such housing development projected does not constitute a significant up-lift in delivery. It can be argued that the sheer scale of development ‘should’ significantly increase, but this has been discussed in sections D) National Policy and AWP/Industry Outlook, page 14, so it is not proposed to significantly increase the LAA Rate from the 10-year rolling sales average as a result of housing projects in the pipeline”.*
- 4.1.7 Thurrock Council are in agreement with this view.

4.2 Current Minerals Supply in Thurrock

- 4.2.1 To date we have only been able to review a limited number of existing mineral sites with planning permission in Thurrock. For confidentiality reasons we cannot disclose mineral sales. We could, however, judge this based on the proposed phasing within each planning permission and come to an estimate based on the reserve and life of the site.

4.2.2 At the time of writing this report, it is apparent that the existing mineral reserves within Thurrock have dwindled. This combined with the expiration of extant planning permissions, leads us to the conclusion that unless further permissions are granted between now and the adoption of the emerging plan, there is likely to be a short fall of indigenous sand and gravel workings within Thurrock. For reference, Table 1 below shows the permissions referred to above, as well as an application associated with Orsett Quarry.

Table 1 Existing Mineral Sites in Thurrock and Permitted Tonnage

Site and Identification Number	Planning Permission Reference	Planning Permission Status and Permitted Tonnage	End Dates	Possible Reserve at April 2026
02 Rainbow Shaw Quarry	20/01297/CV	Permitted We were not able to determine the permitted tonnage in our review of the planning permission and application documents available on Thurrock Council website.	Restoration to be completed by 31 March 2026	The site is believed to be worked out.
04 Dansand Quarry	14/1316/MIN	Permitted 731,000 tonnes	Mineral extraction to be completed by 31 July 2026	It is estimated that 30,500 tonnes of Old Haven sand aka Thanet sand is remaining.
16 Medina Farm	19/01799/FUL	Permitted 200,000 tonnes	Four years from commencement, which was 18 July 2022, therefore giving an end date of 18 July 2026	It is estimated that approximately 20,000 tonnes is remaining within the quarry.
Orsett Quarry Complex	Unknown	An existing Planning Permission is in place. However, the site is believed to be dormant and the exact tonnage remaining is unclear.	2042 (ROMP site)	Unknown
10, 17 & 21 Orsett Quarry Complex	19/01709/FUL For extraction at Walton Hall Farm and processing at Orsett Quarry. It is an extension to the	Not granted. This application was refused at Planning Committee on the 23 February 2026.	The end date would be 10 years from the grant of the planning permission,	1,500,000 Sand and Gravel plus 500,000 Thanet sand This would offer substantial

application
associated with
the Orsett Quarry
Complex (above).

including the
extension of the
ROMP site from
2042 to 2046.

contribution to the
landbank.

- 4.2.3 Therefore, there currently appears to be limited permitted mineral reserves available within Thurrock, unless planning application ref. 19/01709/FUL, for the extension of Orsett Quarry, was permitted.
- 4.2.4 In the context of the emerging Thurrock Local Plan, which is expected to be adopted in 2028 and run until 2044, this means that the requirement to provide a seven year landbank at the Plan's inception would have been achievable if this application had been permitted, and that the landbank could theoretically be maintained for up to approximately seven years.
- 4.2.5 Notwithstanding this, further effort is still required to identify future potential mineral reserves within any workable safeguarded area, if any landbank was to become available deeper into the plan period.
- 4.2.6 Essex County Council, however, have postulated a scenario where identification of a seven year landbank is met at the start of a plan period and then reviewed regularly throughout the plan life. This approach may have some merit.
- 4.2.7 If the reserves at Orsett Quarry were permitted, and notwithstanding any anticipated extraction rate mentioned in the planning application, an extraction rate of 0.14 Mtpa would mathematically result in a local landbank of 10.7 years (1,500,000/140,000). Depending on the quality of the Thanet sand, this could add a further 3.5 years to the local land bank. However, with planning application ref. 19/01709/FUL being refused, this means that there is currently not any immediate or obvious ways to fulfil any landbank aspirations.

5 AVAILABLE MINERAL WORKING AREAS

- 5.1.1 After an initial call for sites there, were no responses from the mineral aggregates industry. Therefore, we are in a position where we need to examine geological data and review undeveloped mineral bearing land within Thurrock to understand which sites could be available for future extraction.
- 5.1.2 Both MSAs and MCAs are drawn as they occur based on geological data and are not cognisant of developed areas or areas proposed for development. As a result, not all of the resource protected by the MSA or MCA will be workable.

5.2 Initial Area of Search

- 5.2.1 In order to establish any potential for aggregates production in Thurrock, we reviewed what, if any, undeveloped mineral bearing land could be available by examining:
- Environmental Agency flooding information. Flooding would not per se prohibit minerals extraction, as they could be worked wet, though it does give an indication of difficulty.
 - Information on listed buildings, Scheduled Ancient Monuments and Parkland
 - Local Authority Highways (A and B Roads)

- Utilising a notional 250 m distance to ensure that sensitive property, such as housing, office and industrial areas, has a setback from any potential mineral working area.

5.3 Detailed Mapping

5.3.1 Following on from the above, we used the Government's MAGIC Maps to further review what land may be available in terms of the following constraints:

- Agricultural Land (excluded if 1,2,3A)
- Ancient Woodland
- Aquifers
- Areas of Outstanding Natural Beauty
- Drinking Water Safeguarding Zones
- Groundwater Vulnerability Protection
- Local Nature Reserves
- Priority Habitat
- Pipelines
- RAMSAR and other international sites.
- Registered Battlefields
- Registered Parks and Gardens
- World Heritage Sites

5.3.2 Existing minerals resources may be overlain by development or subject to other constraints, meaning that the area shown to be available for mineral development could be considerably smaller than indicated. By way of illustration of this, our mapping shows that there are very few areas within Thurrock from which minerals could conceivably be recovered.

5.3.3 We have identified that there may be possible areas where workable mineral reserves exist within Thurrock. Although, these areas are extremely limited, and it is possible, in the absence of any advancement by industry, that they may not readily come forwards due to ownership or other issues. Therefore, in line with the advice given in the PPG, Designation of Specific Sites is not sensible leaving the other options as either Preferred Areas or Areas of Search. Given the absence of detailed borehole data from industry, we believe that Areas of Search would be more appropriate as we should not designate preferred areas without some certainty of the available resource.

5.3.4 The mapping mentioned above has been included alongside this report in Appendix 1.

6 POLICY DISCUSSION

- 6.1.1 There are a series of issues to be considered, which relate to the safeguarding of minerals resources, safeguarding of facilities, and future provision of aggregates.
- 6.1.2 MSAs are based upon the available BGS data. In addition to MSAs, there are MCAs, along with a number of facilities for landing and transshipment of marine won aggregates and for aggregate recycling. There is also the issue of whether any aggregates can be land won within Thurrock.
- 6.1.3 Currently we have a drafted policy which read as follows:

Strategic Policy 11 – Minerals

Land Won Minerals

The Council will seek to maintain a landbank of 7-years and aim to meet the sub-regional apportionment of sand and gravel throughout the Plan period or meet any subsequent change in the period as agreed by national policy or as a result of a review of the regional apportionment. The Council will assess the provision of the landbank through its monitoring framework.

To ensure the prudent use of Thurrock's mineral resources, mineral working will only be permitted where there is an identified national, regional or local need.

Recycled and Secondary Aggregate

Subject to the waste policies of this plan the Council will encourage the use of facilities for recycling aggregate or secondary materials, or processing of such materials, as alternatives to land won aggregate.

Mineral Safeguarding Area

Minerals Safeguarding Areas for Chalk, Sand and Gravel are identified on the Policies Map.

Within or adjacent to Mineral Safeguarding Areas, non-mineral development, which would adversely affect the viability of exploiting the underlying or adjacent deposit in the future, will only be supported where it can be demonstrated that the:

- 1. Underlying or adjacent mineral is of limited economic value;*
- 2. Need for the development outweighs the need to safeguard the mineral deposit;*
- 3. Non-mineral development can take place without preventing the mineral resource from being extracted in the future;*
- 4. Non-mineral development is temporary in nature; or*
- 5. Underlying or adjacent mineral deposit can be extracted prior to the non-mineral development proceeding, without adversely affecting the viability of the development.*

Aggregate Recycling and Secondary Processing Sites

The permanent authorised aggregate recycling capacity will be safeguarded from non-mineral related development.

Coated materials and concrete products

Any permanent authorised facilities for concrete batching, manufacture of coated materials and concrete products, and the handling, processing and distribution of substitute, recycled and secondary aggregate material will be safeguarded from non-mineral related development, or it can be demonstrated that there is adequate alternative capacity on these sites within Thurrock, or that the capacity of the site is no longer required to meet an identified need.

Aggregate Wharves

All existing aggregate wharves will be safeguarded against proposals which prejudice their use for the importation of aggregates. New sites for possible aggregate wharves will be encouraged through policies in the within the broad locations of Tilbury – Purfleet and the London Gateway.

Strategic Policy Explanation

Thurrock is a Minerals Planning Authority (MPA) and is required to plan for an adequate and steady supply of mineral resource to meet the material needs of its own and contribute to the regions' needs. This provision must be made in accordance with the principles of sustainable development.

The NPPF sets out the overall objectives of Government policy for minerals provision. It recognises that minerals are essential to support sustainable economic growth and quality of life. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the Country needs.

Thurrock is required to plan for a sub-regional apportionment of 0.14 mtpa (as part of the overall combined figure of 4.45 mtpa for Essex, Thurrock and Southend on Sea) of land won sand and gravel per annum throughout the Plan period. A combined figure is used for monitoring purposes because of the limited number of sites and operators in Thurrock and the need to maintain commercial confidentiality for individual mineral operators. Essex is separately planning for the provision of aggregates in accordance with their own landbank requirement.

Essex is one of the largest producers in the UK for sand and gravel resources, used in construction and for roads. Existing allocated sites within the Essex Minerals Local Plan Review 2014 contain sufficient mineral resources to support current needs within Essex and outside the county. Thurrock has traditionally supplied sand and gravel, chalk and clay. These mineral sites have been restored to a variety of after uses including retail and housing at Lakeside and Chafford Hundred. In addition, the River Thames has been a major route for the transshipment and distribution of aggregates including the landing of hard rock and marine dredged aggregate. The material has been distributed within Thurrock, the wider region and London.

Over the past two decades, there has been a decline in the volume of mineral extraction permitted in Greater Essex, reflecting a wider national trend. As of the end of 2020, Greater Essex, including Southend and Thurrock, had sufficient permitted reserves and site allocations to meet anticipated mineral supply requirements. The Essex Minerals Local Plan

is currently under review and will assess an appropriate level of provision for mineral extraction to 2040, alongside the potential identification of additional extraction sites. To date, none of the 52 candidate sites submitted for consideration are located within South Essex.

The South East Marine Plan (2021) contains policies that safeguard wharves and ports from encroachment by incompatible development that could compromise their ability to receive marine-won aggregates.

The Essex Minerals and Waste Planning Authority's Wharf Baseline Capacity Study (2020) concluded that there is currently no evidence to support a reduction in land-won mineral provision based on increased reliance on marine-won aggregate imports. Responsibility for licensing the exploration and extraction of marine-won aggregates rests with the Crown Estate and falls outside the remit of Mineral and Waste Planning Authorities.

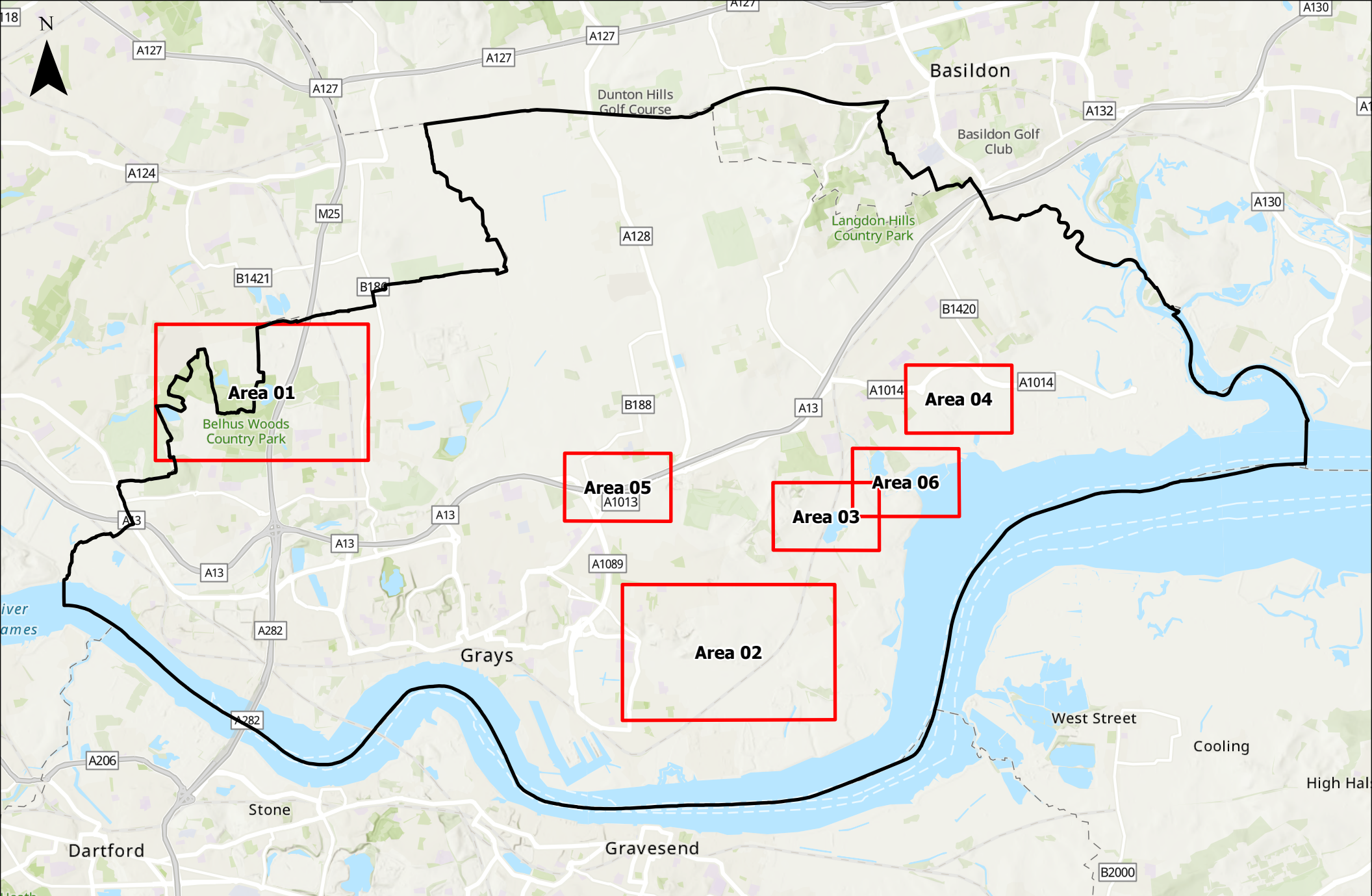
Mineral Safeguarding Areas are identified on the Policies Map. In defining these, the extent of the different mineral resources and the likely development pressures within and adjacent to the resources was considered, as well as the location of significant existing mineral operations in the area.

- 6.1.4 Based on the mapping exercise we have undertaken, there is serious doubt as to whether any land won minerals can be achieved. At the moment we are suggesting Areas of Search and in addition to that, there is a chance that the recently refused planning application for the extension of Orsett Quarry may progress to appeal, the outcome of which is obviously uncertain and should not be relied upon in policy terms.

7 CONCLUSIONS AND RECOMMENDATIONS

- 7.1.1 Thurrock Council are in a position to deliver a range of commitments as discussed above. However, there is limited certainty over the ability to deliver land won aggregates, and there are no mineral operators advancing potential sites backed up by estimates of reserves. The allocation of Areas of Search would allow applications to come forward and be assessed against their likely impacts and offer a prospect of meeting the land won minerals allocation.
- 7.1.2 These Areas of Search would allow properly supported mineral planning applications to come forward within them and be assessed against policy in order to gauge the merit of them gaining planning permission.

APPENDIX 1: MINERAL AREAS OF SEARCH

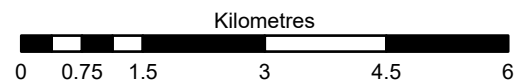


Legend

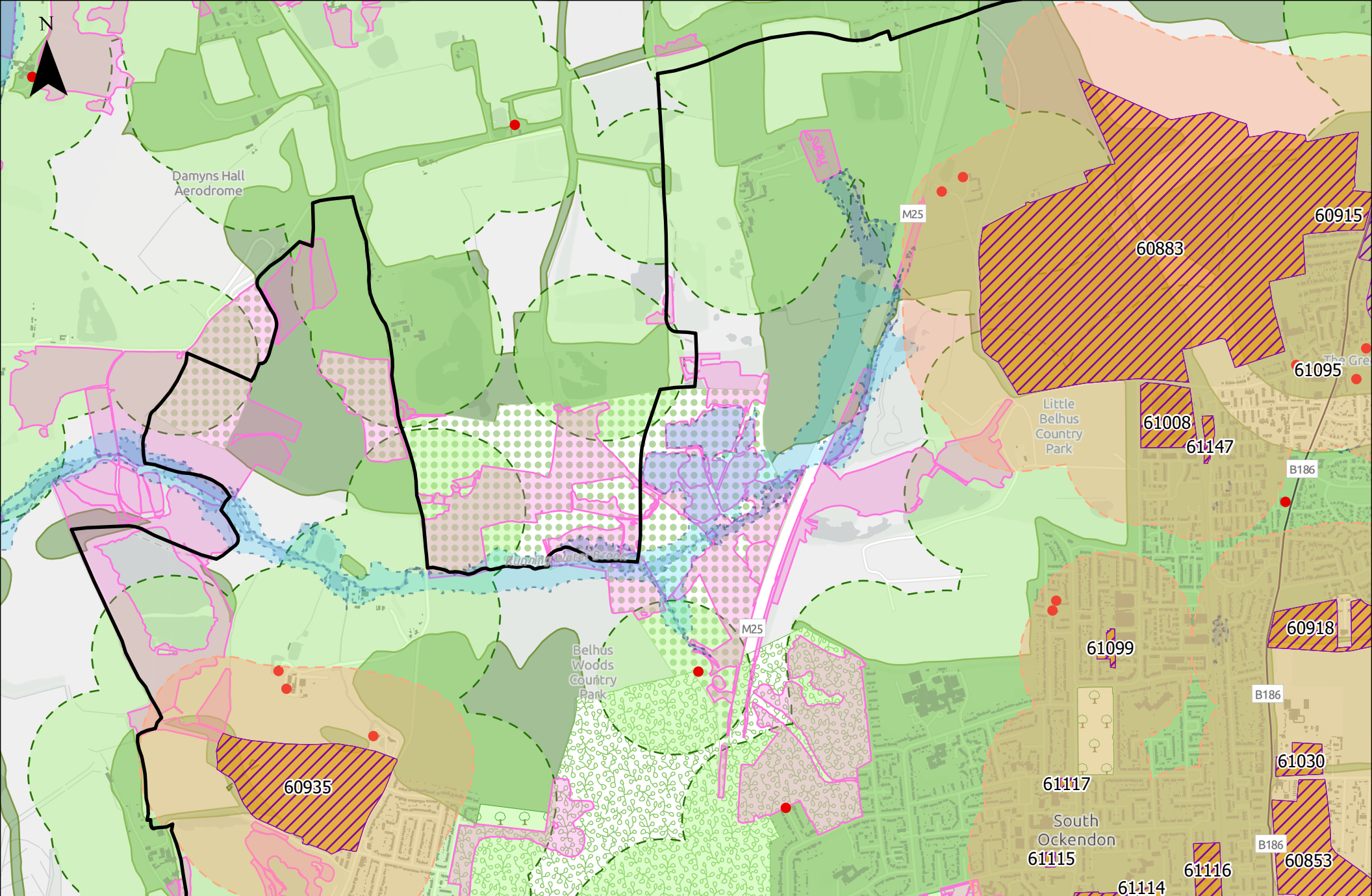
 Thurrock Boundary

 Mineral Areas of Search

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, Ordnance Survey, NASA, NGA, USGS



**Thurrock Mineral
Safeguarding Areas**

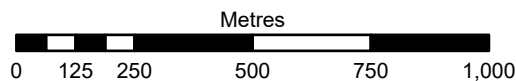


Legend

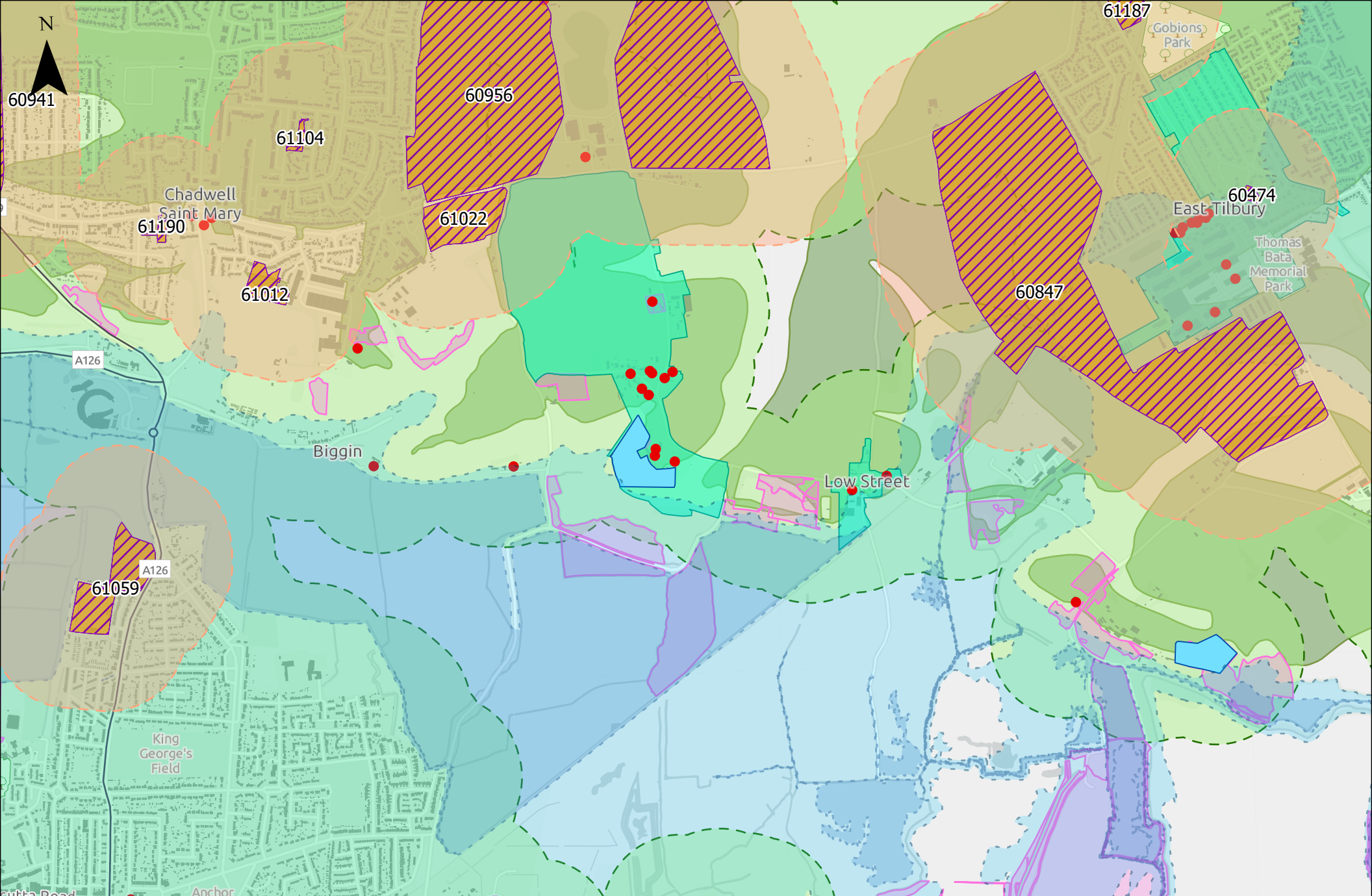
- | | | |
|-------------------------------|---------------------------|---|
| Thurrock Boundary | Listed Buildings | Country Parks |
| Housing Sites Plan A | Main Roads | Register of Parks and Gardens of Special Historic Interest |
| Housing Sites Plan B | Flood Zone 2 | Superficial sand/gravel, River Terrace deposits |
| Housing Sites 250m Buffer | Flood Zone 3 | Superficial sand/gravel, Sub-alluvial River Terrace deposits - Inferred resources |
| Residential Zones 250m Buffer | Priory Habitats Inventory | |
| OSMM Buildings | Parks and Gardens | |

© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right [2026].

© Environment Agency copyright and/or database right 2025. All rights reserved. Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



Area 01

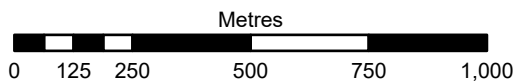


Legend

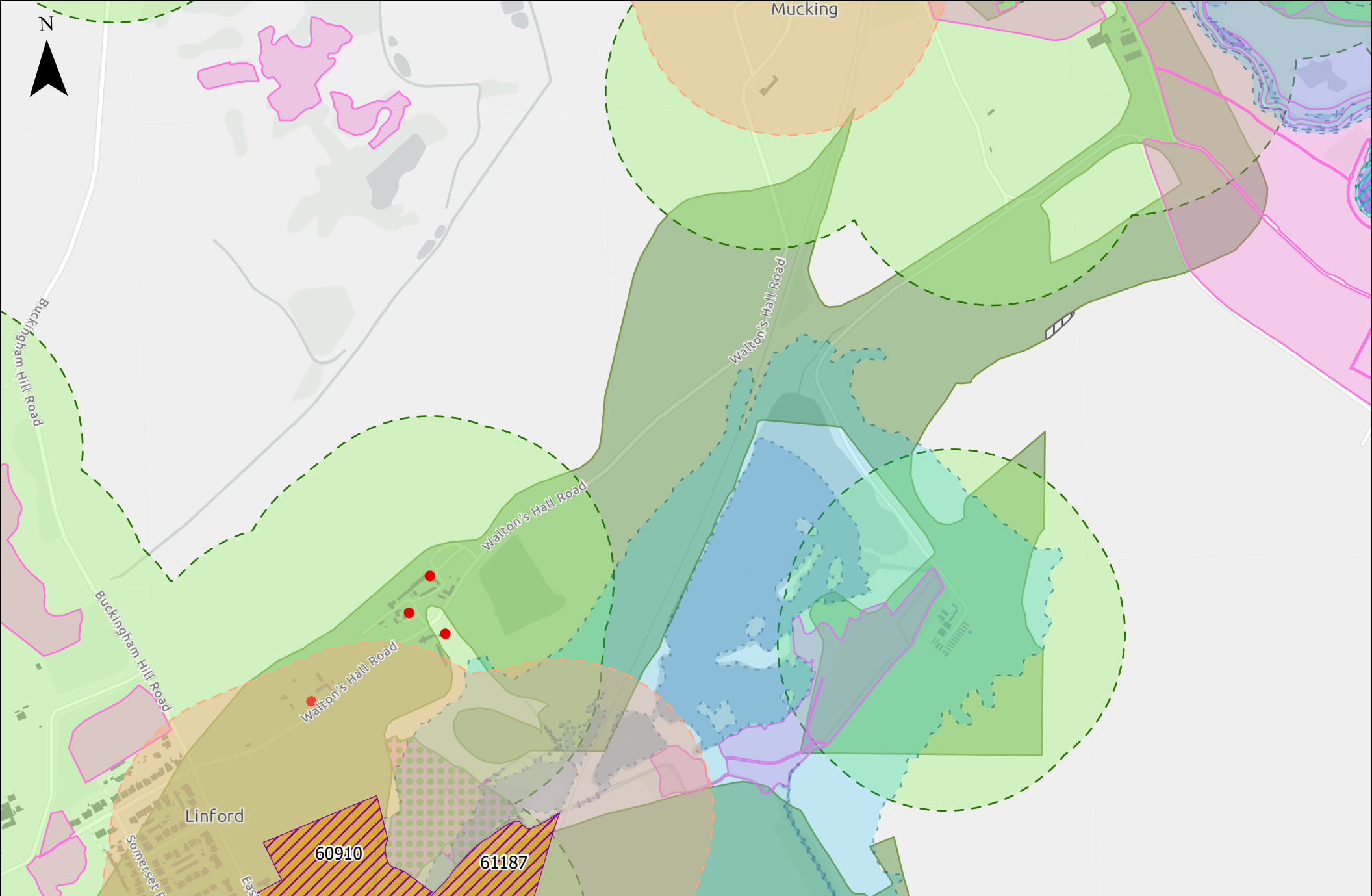
- | | | |
|-------------------------------|---------------------|---|
| Thurrock Boundary | Listed Buildings | Priority Habitats Inventory |
| Housing Sites Plan A | Main Roads | Parks and Gardens |
| Housing Sites Plan B | Flood Zone 2 | Superficial sand/gravel, River Terrace deposits |
| Housing Sites 250m Buffer | Flood Zone 3 | Superficial sand/gravel, Sub-alluvial River Terrace deposits - Inferred resources |
| Residential Zones 250m Buffer | Scheduled Monuments | |
| OSMM Buildings | Conservation Areas | |

© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right [2026].

© Environment Agency copyright and/or database right 2025. All rights reserved. Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



Area 02



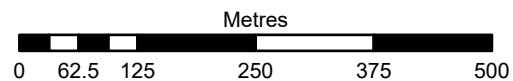
Legend

- Thurrock Boundary
- Housing Sites Plan A
- Housing Sites Plan B
- Housing Sites 250m Buffer
- Residential Zones 250m Buffer
- OSMM Buildings
- Listed Buildings
- Flood Zone 2
- Flood Zone 3
- Local Nature Reserves
- Ramsar
- Priority Habitats Inventory

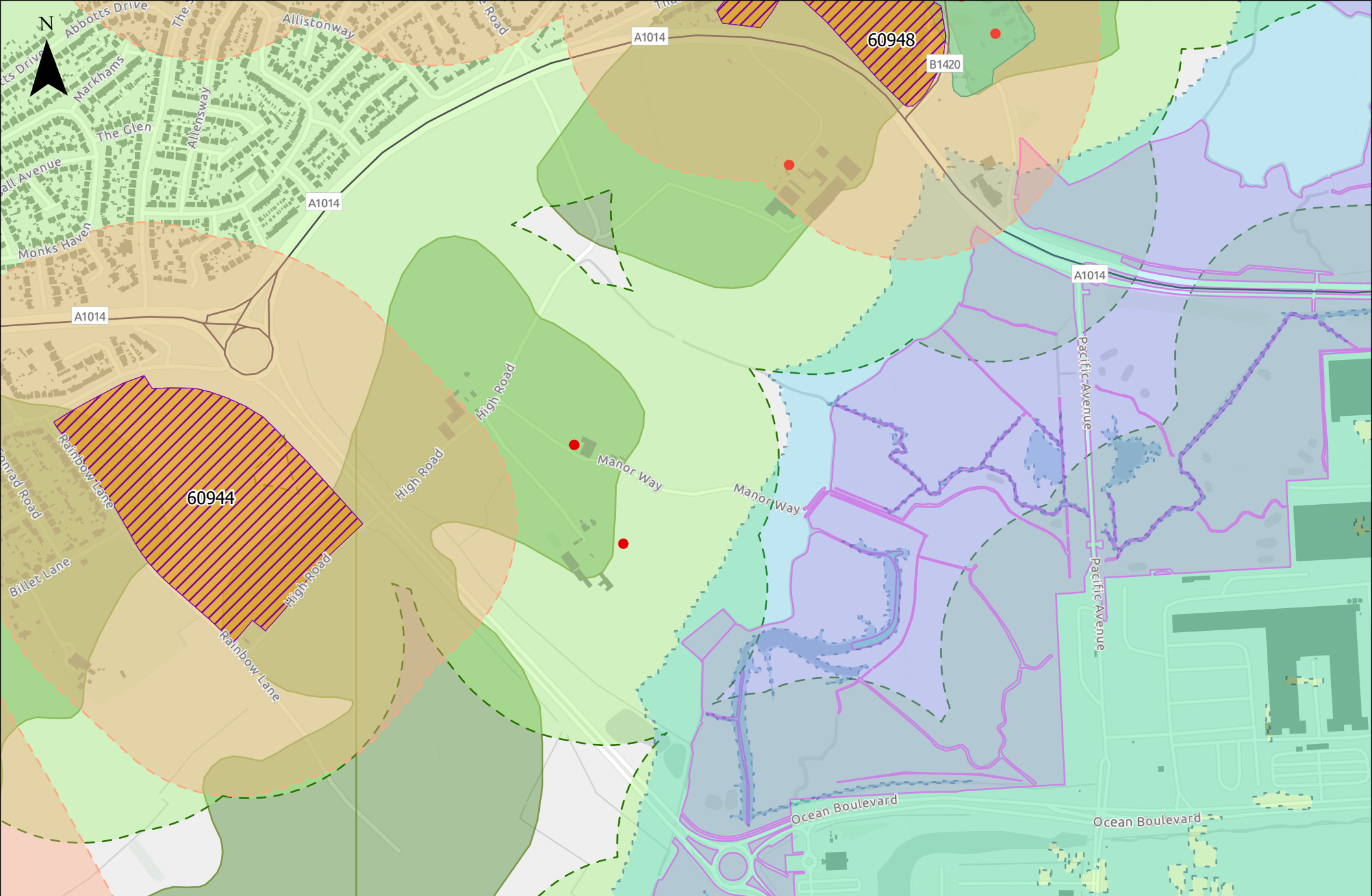
- Superficial sand/gravel, River Terrace deposits
- Superficial sand/gravel, Sub-alluvial River Terrace deposits - Inferred resources

© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right [2026].

© Environment Agency copyright and/or database right 2025. All rights reserved. Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



Area 03



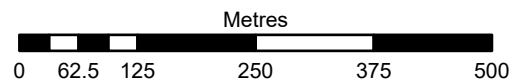
Legend

- | | |
|-------------------------------|-----------------------------|
| Thurrock Boundary | Listed Buildings |
| Housing Sites Plan A | Main Roads |
| Housing Sites Plan B | Flood Zone 2 |
| Housing Sites 250m Buffer | Flood Zone 3 |
| Residential Zones 250m Buffer | Conservation Areas |
| OSMM Buildings | Priority Habitats Inventory |

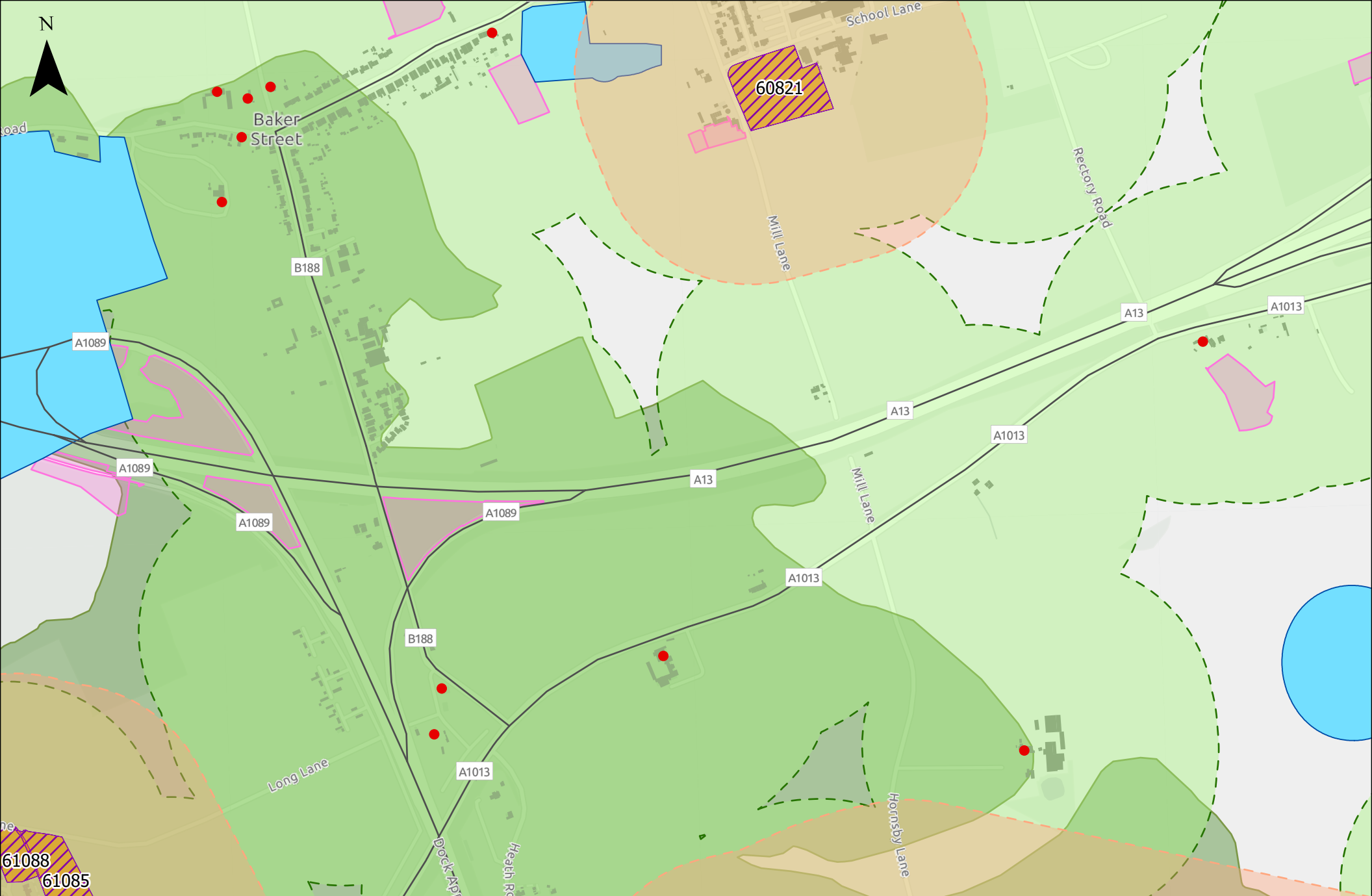
- | | |
|--|---|
| | Superficial sand/gravel, River Terrace deposits |
| | Superficial sand/gravel, Sub-alluvial River Terrace deposits - Inferred resources |

© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right [2026].

© Environment Agency copyright and/or database right 2025. All rights reserved. Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

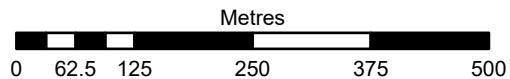


Area 04

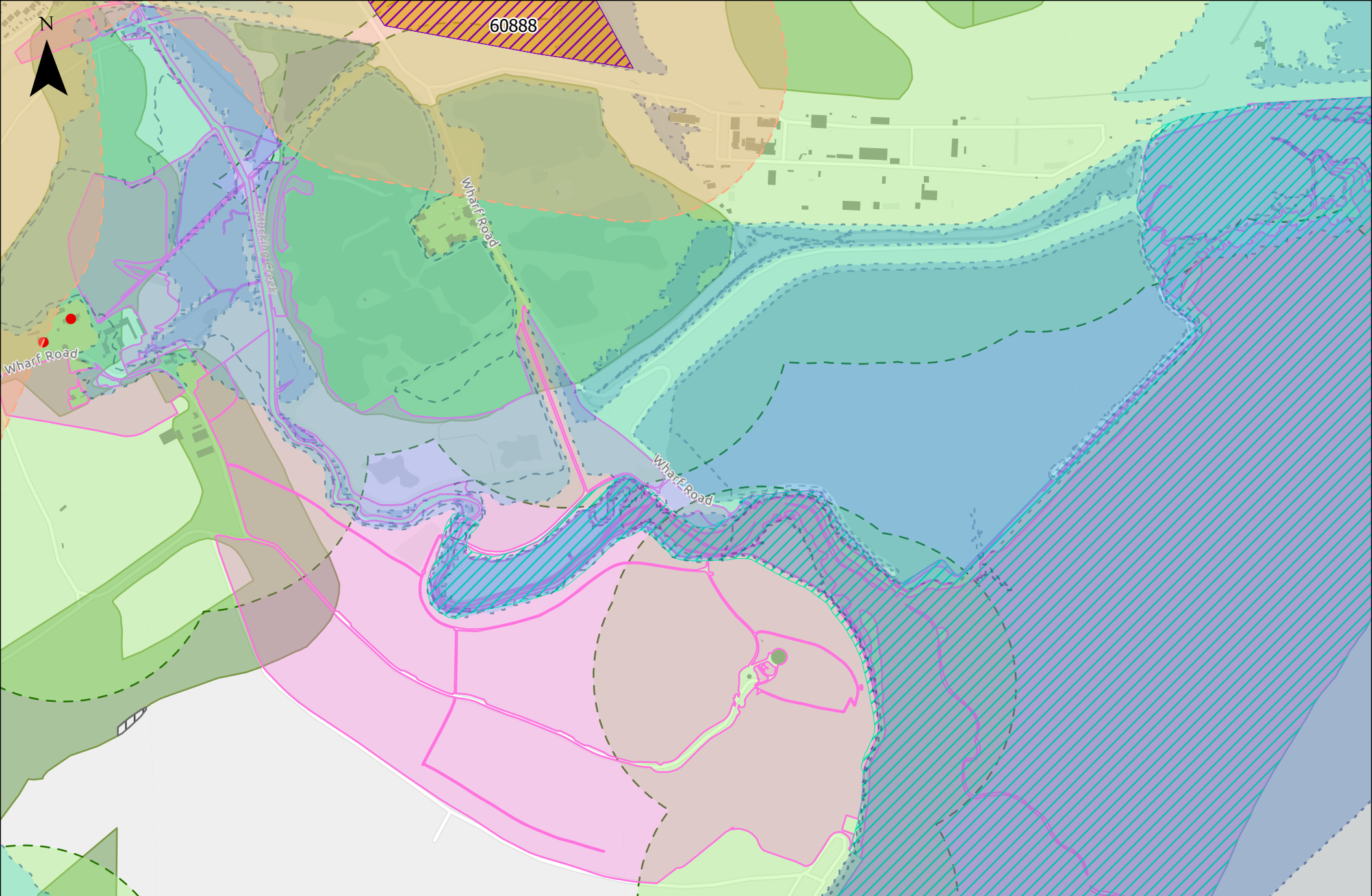


© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right [2026].
 © Environment Agency copyright and/or database right 2025. All rights reserved.
 Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Area 05



- Legend**
- Thurrock Boundary
 - Housing Sites Plan A
 - Housing Sites Plan B
 - Housing Sites 250m Buffer
 - Residential Zones 250m Buffer
 - OSMM Buildings
 - Listed Buildings
 - Main Roads
 - Flood Zone 2
 - Flood Zone 3
 - Scheduled Monuments
 - Priory Habitats Inventory
 - Superficial sand/gravel, River Terrace deposits
 - Superficial sand/gravel, Sub-alluvial River Terrace deposits - Inferred resources



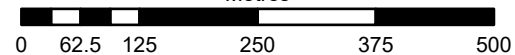
Legend

- | | | | | | |
|--|-------------------------------|--|------------------|--|---|
|  | Thurrock Boundary |  | OSMM Buildings |  | Priority Habitats Inventory |
|  | Housing Sites Plan A |  | Listed Buildings |  | Superficial sand/gravel, River Terrace deposits |
|  | Housing Sites Plan B |  | Flood Zone 2 |  | Superficial sand/gravel, Sub-alluvial River Terrace deposits - Inferred resources |
|  | Housing Sites 250m Buffer |  | Flood Zone 3 | | |
|  | Residential Zones 250m Buffer |  | Ramsar | | |

© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right [2026].

© Environment Agency copyright and/or database right 2025. All rights reserved.
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Metres



Area 06