Representation on Policy SS18

Thurrock Local Plan Regulation 19, Lower Langdon and Corringham Park Farm.

Volume 2: Supporting schedules and analyses

This volume holds Appendix F (the schedule of 162 defects, each with the test it fails and its source) and Appendices G to Q (the independent analyses made for this representation, each with its question, data, method, results and limits).

The representation itself, with its summaries, grounds, modifications and Appendices A, B, C, D and E, is Volume 1. In the filed copy the two volumes are separate documents. Here they follow one another.

Appendix F. Schedule of defects: all 162, each with the test it fails and its source

Every defect identified in this representation's examination of the Council's evidence, grouped by tier and in order of severity. Each item gives a short title and what is wrong; **Fails**, the soundness test or legal requirement it engages; **Source**, the document (with its number in Appendix A) and the PDF page on which the point can be checked; and its consequence at Examination and for the five-year housing land supply. PDF page numbers are the page of the PDF file as published, which can differ from the number printed on the page. Where the source is one of the independent analyses made for this representation, the item names the repository note and the appendix of this representation that sets out its method and full results.

Classifications: FATAL UNLESS CURED (a legal defect curable only by a consulted addendum); SITE OUT (the Inspector removes the allocation by main modification); MOD (curable by rewording or new evidence); SUPPORT (adds weight); APPLICATION (bites after adoption on any application).

Five-year supply: BAR UP (raises the requirement the Council is judged against); NIL (SS18 contributes nothing); APPEAL ON SITE; APPEAL BOROUGH; N/A.

Tier 10 items are plan-wide and recorded as context for the pattern SS18 exemplifies; they are not grounds of this representation.

Tier 1. Legal compliance

Test engaged: Legal compliance. Developed at section 3.

F1. The habitats assessment does not assess SS18. The HRA does not mention SS18, Lower Langdon, Corringham Park Farm or land north of the A13.

Fails: legal compliance.
Source: Habitats Regulations Assessment (LUC, July 2026) [11]: full text search, no occurrence of "Langdon", "Corringham Park" or "north of the A13"; its "Policy SS18" entry is West Horndon, PDF page 285.
Examination: FATAL UNLESS CURED. **Five-year supply:** NIL.

F2. The habitats assessment was not consulted with Natural England. The HRA was never consulted with Natural England, although it says itself it should be.

Fails: legal compliance.
Source: Habitats Regulations Assessment [11], PDF pages 8 and 133 (consultation with Natural England); no published record of the consultation.
Examination: FATAL UNLESS CURED. **Five-year supply:** N/A.

F3. No conclusion of no adverse effect for any allocation. The HRA cannot conclude no adverse effect on the Thames Estuary sites for any allocation; the Lower Thames Crossing traffic data does not exist.

Fails: legal compliance.
Source: Habitats Regulations Assessment [11], executive summary, PDF page 8 ("Until such time as … the AADT traffic modelling data is provided, a conclusion of no adverse effect on integrity cannot be reached").
Examination: FATAL UNLESS CURED, plan-wide. **Five-year supply:** N/A.

F4. The habitats assessment was written to a different plan. The HRA is written to a different policy numbering and relies on a policy that does not exist.

Fails: legal compliance.
Source: Habitats Regulations Assessment [11], PDF pages 7 to 8 ("DM28", "Parts 1 and 2") and 270 ("SS14 Land north-east of South Ockendon"); Integrated Impact Assessment [8], summary matrix, PDF page 499.
Examination: SUPPORT (shows haste). **Five-year supply:** N/A.

F5. The SANG the SSSI depends on is not in the habitats assessment. The SANG the SSSI protection depends on is not in the HRA and has no area, location, cost or delivery body.

Fails: legal compliance; effective.
Source: Regulation 19 Local Plan [1], Policy SS18, PDF pages 288 and 292 to 293 (SANG required); Habitats Regulations Assessment [11]: "SANG" and "Suitable Alternative Natural Greenspace" occur 0 times; IDP Schedule Part 2 [31].
Examination: SITE OUT. **Five-year supply:** APPEAL ON SITE (no mitigation to condition).

F6. The adopted strategy was never appraised. The appraisal never scored the adopted strategy; the only option with Lower Langdon scored worse than the option without it on eight objectives.

Fails: legal compliance; justified.
Source: Integrated Impact Assessment [8], Table 2.2, PDF page 53; paragraph 2.55 ("one new town") and 2.68, PDF pages 49 and 55; paragraphs 4.73 to 4.80, PDF pages 136 to 143 (HG1 scores better than HG2).
Examination: FATAL UNLESS CURED; the cure produces evidence for deletion. **Five-year supply:** N/A.

F7. No statement of common ground with anyone. No statement of common ground with any council, provider or statutory body.

Fails: legal compliance; effective.
Source: The Council's published evidence base (no statement of common ground listed); Statement of Community Involvement [53], page 10; Regulation 19 Local Plan [1], tests of soundness, PDF page 13.
Examination: MOD (the statutory duty to cooperate ceased to apply on 25 March 2026 and was not saved for legacy plans; the Cabinet report's statement at 4.31 that it has no legal status is correct. What remains is the NPPF policy test of "maintaining effective co-operation", a soundness matter the Inspector can require to be evidenced by statements of common ground before or during the Examination). **Five-year supply:** N/A.

F8. Neighbours' objections unresolved. Basildon's Regulation 18 objection to Lower Langdon and Brentwood's to West Horndon are unresolved.

Fails: legal compliance; effective.
Source: Regulation 18 Consultation Statement [7], Basildon Borough Council comment IP0024, PDF page 90, and Essex County Council comment IP0104, PDF page 113.
Examination: MOD (unresolved cross-boundary objections go to soundness under NPPF paragraphs 24 to 27; removing SS18 resolves Basildon's). **Five-year supply:** N/A.

F9. Never proposed at Regulation 18. The site was never proposed at Regulation 18; the Council said it lacked the information; Corringham Park Farm was never shown.

Fails: positively prepared.
Source: Local Plan Initial Proposals (December 2023) [48], PDF page 154 ("At this stage we do not have enough information"); Corringham Park Farm not shown.
Examination: SUPPORT (Inspectors generally treat Regulation 19 as the public's opportunity; the Council's own admission is a soundness point). **Five-year supply:** N/A.

F10. No in-combination assessment with the Lower Thames Crossing. The in-combination assessment with the Lower Thames Crossing has not been done.

Fails: legal compliance.
Source: Habitats Regulations Assessment [11], executive summary, PDF page 8 (air pollution in combination with the Lower Thames Crossing unresolved).
Examination: FATAL UNLESS CURED. **Five-year supply:** N/A.

F11. The water-quality assessment relies on the wrong water company. The HRA's water-quality appropriate assessment for the Thames Estuary and Marshes SPA and Ramsar site concludes no adverse effect "providing that the mitigation measures and improvements set out by Southern Water are followed" (PDF page 125): Kent's sewerage undertaker, Medway, Motney Hill, Gravesend, Canterbury, Sandwich. Thurrock's undertaker is Anglian Water; "Anglian" occurs 0 times in the HRA and Tilbury WRC is never named. No mitigation exists for the pathway the HRA itself identified (6.79). Plan-wide; independent of F1.

Fails: legal compliance.
Source: Habitats Regulations Assessment [11], paragraphs 6.77 to 6.81, PDF pages 122 to 125; Water Cycle Study Scoping Report [43], sections 5.4 and 5.4.1, PDF pages 22 to 23; report/WATER-AND-SEWERAGE-NOTE-2026-09-23.md.
Examination: FATAL UNLESS CURED. **Five-year supply:** NIL.

F12. Tilbury works already overflowing. The works the HRA omits is already failing on the pathway it names: Tilbury WRC's inlet storm overflow spilled 44 (April to December 2023), 56 (2024) and 64 (2025) times, Anglian Water's reason "Hydraulic capacity", "No improvement action in reporting period"; permit sets no nitrogen or phosphorus limit; outfall 2.1 km from the Ramsar site. Published March 2026, four months before the HRA.

Fails: legal compliance; effective.
Source: Environment Agency storm overflow annual returns 2023 to 2025 [115]; Tilbury WRC permit [114]; report/TILBURY-PERMIT-AND-OVERFLOWS-NOTE-2026-09-23.md (Appendix K).
Examination: FATAL UNLESS CURED (with F11). **Five-year supply:** N/A.

Tier 2. The Council's own consultants against the site

Test engaged: Justified. Developed at sections 4.1 to 4.4.

F13. The Green Belt study rejected the land. Green Belt: "Not recommended for further consideration"; 5 of 5 for preventing towns merging; "would lead to the physical merging of neighbouring towns" (Corringham and Stanford-le-Hope with Basildon).

Fails: justified; consistent with national policy.
Source: Stage 2 Green Belt Assessment, Appendix 4.5 (Arup, February 2026) [13], sub-area CS-01, PDF pages 4 to 6.
Examination: SITE OUT. **Five-year supply:** N/A.

F14. No defensible new Green Belt boundary. Green Belt: no defensible boundary; the new boundary "would not meet the NPPF definition".

Fails: justified; consistent with national policy.
Source: Stage 2 Green Belt Assessment, Appendix 4.5 [13], sub-area CS-01, PDF page 6.
Examination: SITE OUT. **Five-year supply:** N/A.

F15. Not grey belt. Green Belt: "Provisional Grey Belt: No"; the plan's exceptional circumstances case rests on grey belt parcels and calls itself "emerging".

Fails: justified; consistent with national policy.
Source: Stage 2 Green Belt Assessment, Appendix 4.5 [13], sub-area CS-01, PDF page 6 ("Provisional Grey Belt: No"); Regulation 19 Local Plan [1], paragraph 6.8.3, PDF page 361 (grey belt case described as "emerging").
Examination: SITE OUT. **Five-year supply:** APPEAL BOROUGH (grey belt elsewhere comes forward by application anyway).

F16. No reasons for overruling the consultant. No reasons recorded for overriding the consultant, here or on six other allocations.

Fails: justified; consistent with national policy.
Source: Regulation 19 Local Plan [1], Policy SS18 and supporting text, PDF pages 288 to 296; Stage 2 Green Belt Assessment appendices [13] [44] [45] [46]; the re-score made for this representation, report/SITE-SELECTION-RESCORE-NOTE-2026-09-23.md.
Examination: SITE OUT here; MOD elsewhere. **Five-year supply:** N/A.

F17. Weakest Green Belt taken while capacity existed elsewhere. Third-tier "other Green Belt" taken with 50,128 homes of assessed capacity available.

Fails: justified; consistent with national policy.
Source: Housing Land Availability Assessment, main report (October 2025) [38], PDF page 7 (50,128 dwellings of capacity).
Examination: SITE OUT (release sequence). **Five-year supply:** N/A.

F18. Corringham Park Farm "Unsuitable" ten months before allocation. Housing land study: Corringham Park Farm "Unsuitable" ten months before allocation as the first phase.

Fails: justified.
Source: Housing Land Availability Assessment Appendices 2 to 4 (October 2025) [15], Appendix 3, site 60893, PDF page 7.
Examination: SITE OUT (both parcels: no first phase, no phasing). **Five-year supply:** NIL.

F19. Standalone settlements needed further assessment that was never done. Housing land study: standalone settlements need "further detailed assessments"; none done beyond a capacity study instructed to hit a number.

Fails: justified.
Source: Housing Land Availability Assessment, main report [38], PDF page 6 ("further detailed assessment").
Examination: SITE OUT. **Five-year supply:** NIL.

F20. The Council's own viability study: negative land value. Viability: residual land value minus £9.8 million and minus £0.9 million; unviable at the plan's own affordable housing requirement.

Fails: effective; justified.
Source: Local Plan and CIL Viability Assessment (AspinallVerdi, June 2026) [29], Table 8.2, PDF pages 168 to 169.
Examination: SITE OUT (North Essex 2020 ground). **Five-year supply:** NIL; APPEAL ON SITE (viability route cuts affordable housing and infrastructure).

F21. Undeliverable in years one to five; discussions stalled. Viability: undeliverable in years one to five; promoter returned no figures; discussions "stalled".

Fails: effective.
Source: Viability Assessment [29], paragraphs 8.63 to 8.68, PDF page 166.
Examination: SITE OUT. **Five-year supply:** NIL.

F22. Heritage harm the Council says to avoid. Heritage: "Moderate Adverse ... should be avoided"; Horndon Conservation Area, Grade I church, four listed buildings, Arden Hall. Historic England was never consulted on SS18 and has not seen this assessment [136].

Fails: justified; consistent with national policy.
Source: Heritage Impact Assessment, Housing Sites (February 2026) [36], row for site 60940, PDF page 5; Historic England EIR reply 26/04253, 5 October 2026 [136].
Examination: SITE OUT contribution. **Five-year supply:** N/A.

F23. Landscape of "very high" susceptibility. Landscape: "Very high" susceptibility; not cited in the policy.

Fails: justified; consistent with national policy.
Source: Landscape Sensitivity and Capacity Analysis (May 2026) [16], Table 48, Character Area J1 Langdon Lower Hill Slopes, PDF page 113.
Examination: SUPPORT. **Five-year supply:** N/A.

F24. The capacity study was told the answer. Capacity study instructed to "demonstrate capacity exceeding the 4,000-dwelling target"; assumed developable "having been identified by TC"; 4,041 result.

Fails: justified.
Source: Transport Assessment: Lower Langdon Site Specific Assessment (Arup, July 2026) [14], PDF pages 22 ("having been identified by TC") and 24 ("must demonstrate capacity exceeding the 4,000-dwelling target").
Examination: SITE OUT (not justified). **Five-year supply:** NIL.

F25. Corringham Park Farm: 463 at best practice, not 1,000. Corringham Park Farm's best-practice capacity is 463, not 1,000; 1,000 "falls below best-practice standards".

Fails: justified; effective.
Source: Lower Langdon Site Specific Assessment [14], section 5.4.2 and Tables 5-4 and 5-5, PDF page 25.
Examination: SITE OUT for the parcel. **Five-year supply:** NIL.

F26. The land budget does not close. The land budget does not close: employment and schools in a 6.4 ha allowance; open space 14 ha short; no Traveller land; no SANG land.

Fails: effective; justified.
Source: Lower Langdon Site Specific Assessment [14], Table 5-2, PDF page 24; Regulation 19 Local Plan [1], Policy SS18, PDF pages 291 to 293.
Examination: SITE OUT (not effective). **Five-year supply:** APPEAL ON SITE (a developer builds what fits and negotiates away the rest).

F27. The constraints map found "no other protected areas". The constraints map found "no other protected areas" on a site bounded by a SSSI with two Local Wildlife Sites inside it.

Fails: justified.
Source: Lower Langdon Site Specific Assessment [14], PDF page 17.
Examination: SUPPORT (capacity overstated). **Five-year supply:** N/A.

F28. The 2023 appraisal: the land keeps the towns apart. The 2023 appraisal scored the land significant negative on soils, resources, water, flood and landscape and said it "prevents Stanford le Hope and Langdon from merging".

Fails: justified.
Source: Integrated Impact Assessment Appendices (July 2026) [9], paragraphs G.299 to G.302, PDF page 439; 2023 IIA Appendices [54], PDF page 493.
Examination: SITE OUT contribution. **Five-year supply:** N/A.

F29. The two-town strategy ranked fifth of six. The 2023 appraisal ranked the two-new-towns strategy fifth of six; the Council chose distributed growth as "the most sustainable option".

Fails: justified.
Source: Integrated Impact Assessment of the Initial Proposals (LUC, November 2023) [50], paragraphs 4.90 to 4.91, PDF page 158.
Examination: FATAL UNLESS CURED (alternatives). **Five-year supply:** N/A.

F30. Dropped, then reinstated on an unpublished claim. The 2026 preferred strategy "did not take forward Lower Langdon"; reinstated "because of the increased housing requirement" on an unpublished promoter demonstration.

Fails: justified.
Source: Integrated Impact Assessment [8], paragraph 2.61, PDF page 51.
Examination: SITE OUT (not justified). **Five-year supply:** BAR UP (the raised requirement is the reason the site exists).

F31. Lower Langdon adds no homes in the option table. The option table gives the towns identical homes with or without Lower Langdon; it only replaces 5,000 at West Horndon.

Fails: justified.
Source: Integrated Impact Assessment [8], Table 2.2, PDF page 53; paragraph 2.64, PDF page 52.
Examination: SUPPORT (removal costs nothing). **Five-year supply:** N/A.

F32. "Submitted speculatively, no assessments have been done". The 2022 charrette: "submitted speculatively, no assessments have been done".

Fails: justified.
Source: Horndon on the Hill Stakeholder Charrettes (2022) [62], PDF page 44.
Examination: SUPPORT. **Five-year supply:** N/A.

F33. "Plan B". The Council's own label for the strategy with SS18 is "Plan B".

Fails: justified.
Source: Cabinet report, 26 August 2026 [4], PDF pages 4, 6 and 9; Local Plan Transport Assessment [32] scenario "2044 Plan B".
Examination: SUPPORT (lead for EIR). **Five-year supply:** N/A.

F34. The only allocation that fails every constraint. Re-scored on the Council's own consultants' findings, SS18 is the only one of nine strategic allocations that fails every constraint column (Green Belt, grey belt, heritage, Flood Zone 3, future flood extent, Main River, sequential rank).

Fails: justified.
Source: The re-score made for this representation on the Council's own consultants' findings: report/SITE-SELECTION-RESCORE-NOTE-2026-09-23.md (Appendix M); sources in that note.
Examination: SITE OUT contribution. **Five-year supply:** N/A.

F35. More Green Belt released against advice than the advice allowed. The plan releases about 848 hectares of Green Belt its consultant recommended against, more than the 816 hectares the consultant said could be considered; SS18 is 250 hectares, 2.1 per cent of the borough's Green Belt, the largest recommended-against block that is not grey belt. No reasons recorded for any departure.

Fails: justified; consistent with national policy.
Source: Stage 2 Green Belt Assessment and appendices [12] [13] [44] [45] [46]; report/SITE-SELECTION-RESCORE-NOTE-2026-09-23.md (Appendix M).
Examination: SITE OUT contribution; MOD plan-wide. **Five-year supply:** N/A.

F36. The Council's own refusals for harm to openness. Twenty Green Belt refusals on and around the allocation, continuous from 2012 to January 2026, for extensions, outbuildings, caravans and single dwellings, each for harm to openness; 168 refusals since 1948. The allocation records no reason why that harm no longer applies.

Fails: justified; consistent with national policy.
Source: Thurrock online planning register [122]; report/PLANNING-HISTORY-NOTE-2026-09-23.md (Appendix L).
Examination: SUPPORT. **Five-year supply:** N/A.

Tier 3. Ecology and protected sites

Test engaged: Justified; consistent with national policy. Developed at sections 3.4, 4.6 and 6.2.

F37. No ecological survey of any kind. No ecological survey of any kind: habitat, protected species, birds, bats, newts, reptiles, badger, invertebrates, plants, trees, hedgerows.

Fails: justified; consistent with national policy.
Source: The Council's published evidence base (no ecological survey listed); Integrated Impact Assessment Appendices [9], Appendix D, PDF page 209.
Examination: SITE OUT (justified) for a site abutting a SSSI. **Five-year supply:** APPEAL ON SITE (surveys at application stage will find what the plan ignored; Schedule 1 and section 41 species delay or block).

F38. Biodiversity impacts "cannot be determined". The appraisal admits biodiversity impacts "cannot be determined at this strategic level"; the policy defers survey to the masterplan.

Fails: justified; consistent with national policy.
Source: Integrated Impact Assessment Appendices [9], Appendix D, PDF page 209; Regulation 19 Local Plan [1], Policy SS18, PDF page 293 (survey deferred to masterplan).
Examination: SITE OUT contribution. **Five-year supply:** N/A.

F39. Inside Natural England's Impact Risk Zone, touching the SSSI. The allocation is inside Natural England's Impact Risk Zone, touches SSSI unit 22, and the SSSI extends into its northern part.

Fails: justified; consistent with national policy.
Source: Natural England Impact Risk Zones and SSSI unit boundaries [87] [90]; Site Selection Methodology (July 2026) [37], section 3.2.1 and Table 2, PDF page 9; Regulation 19 Local Plan [1], PDF pages 288 and 295.
Examination: SITE OUT. **Five-year supply:** APPLICATION (Natural England consulted on every application; N6 refusal default).

F40. Natural England's 2024 advice unanswered. Natural England advised in February 2024 (IP0179) that the site should not go forward until alternatives were fully considered; unanswered.

Fails: justified; consistent with national policy.
Source: Regulation 18 Consultation Statement [7], Natural England comment IP0179 and the Council's response, PDF pages 67 and 134.
Examination: FATAL UNLESS CURED (its Regulation 19 response can be decisive). **Five-year supply:** N/A.

F41. Visitor pressure already recorded on the SSSI. Recreational disturbance recorded by Natural England as an active pressure on the SSSI since 2019; 12,000 people added with no visitor, carrying-capacity or trampling assessment.

Fails: justified; consistent with national policy.
Source: Natural England, Designated Sites View, Langdon Ridge SSSI S2000857, site pressures [88] ("Recreational Disturbance", since 12 September 2019).
Examination: SITE OUT. **Five-year supply:** N/A.

F42. The SSSI is still recovering. The SSSI is 80.5 per cent "unfavourable recovering".

Fails: justified; consistent with national policy.
Source: Natural England, Designated Sites View, Langdon Ridge SSSI, unit condition summary [88] (80.5 per cent "unfavourable recovering").
Examination: SUPPORT. **Five-year supply:** N/A.

F43. Red List birds. Red List in the SSSI record: lesser spotted woodpecker, nightingale, turtle dove, woodcock. On the fields: cuckoo, skylark.

Fails: justified; consistent with national policy.
Source: Natural England, Langdon Ridge SSSI supporting information [23]; Protect Langdon field records (Appendix D).
Examination: SUPPORT (justified; NPPF 187). **Five-year supply:** APPEAL ON SITE (skylark and cuckoo on the arable are application-stage constraints).

F44. Species of principal importance. Section 41 species: the four above plus cuckoo, skylark, bullfinch, brown hare, adder, grizzled skipper, brown-banded carder bee, white admiral; barn owl (Schedule 1); badger; Deptford pink (Schedule 8); glow-worm.

Fails: justified; consistent with national policy.
Source: Natural England, Langdon Ridge SSSI citation and supporting information [21] [23]; Local Wildlife Sites Register [18]; county and residents' records (Appendix D).
Examination: SUPPORT. **Five-year supply:** APPLICATION (licensing, seasonal survey delays).

F45. Notified invertebrate assemblages; no invertebrate survey. The SSSI's notified invertebrate assemblages and three nationally scarce species; no field invertebrate survey.

Fails: justified; consistent with national policy.
Source: Natural England, Langdon Ridge SSSI citation [21] and supporting information [23].
Examination: SUPPORT. **Five-year supply:** N/A.

F46. The fields are the linkage. "Archipelago of sites" dependent on "linkage and the avoidance of isolation"; the fields are the linkage.

Fails: justified; consistent with national policy.
Source: Natural England, Langdon Ridge SSSI supporting information [23] ("archipelago of sites"; "linkage and the avoidance of isolation").
Examination: SITE OUT contribution (section 28G). **Five-year supply:** N/A.

F47. Functionally linked land for the estuary unassessed. Functionally linked land for the estuary SPA (wintering waterbirds) unassessed on this site.

Fails: legal compliance; justified.
Source: Habitats Regulations Assessment [11], section 6.17, PDF page 95; NECR207 [71]; Protect Langdon wintering bird records (Appendix D).
Examination: FATAL UNLESS CURED (HRA). **Five-year supply:** N/A.

F48. Two Local Wildlife Sites inside the allocation. Two Local Wildlife Sites inside the allocation, ignored by the design.

Fails: justified; consistent with national policy.
Source: Local Wildlife Sites Register 2022 [18], Th56 Fell-me-down Shaw (PDF page 78) and Th90 Lodge Hall Shaw (PDF page 123); Natural England ancient woodland decision on Fell-me-down Shaw, 25 September and 1 October 2026 (reference 485493).
Examination: SUPPORT. **Five-year supply:** APPLICATION.

F49. A Local Nature Reserve named and then forgotten. Grove House Wood Local Nature Reserve named as a receptor in the appraisal and absent from the policy, the HRA and the constraints work.

Fails: justified; consistent with national policy.
Source: Integrated Impact Assessment [8], paragraph 4.80, PDF page 143; Habitats Regulations Assessment [11] and Policy SS18 [1] (not mentioned).
Examination: SUPPORT. **Five-year supply:** N/A.

F50. No noise, light or air assessment. No noise, light or air assessment for the SSSI's bats, owls and invertebrates, or for existing residents. The Government's own noise maps put 59 per cent of the allocation, and all of Corringham Park Farm, above the WHO limits for road traffic noise by day and night; no barrier or buffer land is provided (Appendix Q). The two estates the Council recently approved beside the A13 at Stanford-le-Hope each had a site noise assessment and a noise condition before approval, and officers recorded their noisy gardens as harm [135]; SS18 has neither.

Fails: justified; consistent with national policy.
Source: The Council's published evidence base (no such assessment listed); Integrated Impact Assessment [8], paragraph 6.426; Defra strategic noise maps, Round 4 [134]; report/NOISE-A13-DEFRA-ROUND4-NOTE-2026-10-04.md (Appendix Q).
Examination: SUPPORT. **Five-year supply:** APPLICATION.

F51. Biodiversity net gain at the minimum, with no baseline. Biodiversity net gain at 10 per cent where county evidence supports 20; no baseline; 4 per cent of the site.

Fails: justified; consistent with national policy.
Source: Regulation 19 Local Plan [1], Policy DMP24, PDF pages 331 to 332; Lower Langdon Site Specific Assessment [14], Table 5-2, PDF page 24 (4 per cent biodiversity land).
Examination: MOD. **Five-year supply:** APPLICATION.

F52. The Council's wildlife plan is out of date. The Council's Biodiversity Action Plan is "currently out of date"; its Greengrid strategy names species using these fields.

Fails: justified; consistent with national policy.
Source: Integrated Impact Assessment Appendices [9], PDF page 158 ("currently out of date").
Examination: SUPPORT. **Five-year supply:** N/A.

F53. A road link drawn through ancient woodland in the SSSI. The £3 million "Laindon Road" connection is drawn through ancient woodland inside the SSSI.

Fails: justified; consistent with national policy; effective.
Source: IDP Schedule Part 2, Lower Langdon [31], PDF page 1 (Laindon Road link); Natural England Ancient Woodland Inventory [90]; Site Selection Methodology [37] (ancient woodland an absolute constraint).
Examination: SITE OUT contribution (not effective). **Five-year supply:** APPLICATION (N6(2): "should be refused").

F54. Capacity re-derived with the missing constraints. Capacity re-derived on the Council's own figures, deducting only land the capacity study did not already leave out: 3,841 homes on the Council's own capacity, falling to 2,861 once the drainage land its own policy needs and 50 m buffers to the SSSI and the two shaws are set aside, 2,734 with an A13 noise bund and fence (Appendix Q), and 2,126 if SANG is also provided to Natural England's standard (Appendix I), against 5,000. Parcel b shares 1,075 m of boundary with the SSSI; 91 per cent of it lies within 250 m.

Fails: justified; effective.
Source: HLAA [15], PDF page 37 (3,378); Lower Langdon Site Specific Assessment [14], Tables 5-1 and 5-5, PDF pages 22 and 25; tools/stepdown_2026_10_01.py and evidence/data/ss18-stepdown-2026-10-01.json (Appendix I).
Examination: SITE OUT contribution (capacity not demonstrated). **Five-year supply:** NIL.

F55. The site scoring ignored the SSSI. The site scoring counts an SSSI only where land lies inside it and does not use Natural England's Impact Risk Zones; Lower Langdon's 68.75 is a flood score, and the SSSI cost it nothing.

Fails: justified.
Source: Site Selection Methodology [37], section 3.2.1 and Table 2, PDF page 9; Natural England Impact Risk Zones user guidance [87]; report/BALANCE-SCORE-NOTE-2026-09-25.md.
Examination: SITE OUT contribution (justified). **Five-year supply:** N/A.

F56. The only site assessment barely shows the SSSI. The only site assessment's constraints map barely shows the SSSI (unit 22 coloured as ancient woodland and priority habitat), mentions SSSIs once, in its list of data, and never names Langdon Ridge, and applies no setback from it.

Fails: justified.
Source: Lower Langdon Site Specific Assessment [14], Figure 3-1, PDF page 17, and Table 5-1, PDF page 22; report/FILE-NOTE-2026-09-25-ARUP-FIG-3-1-SSSI.md.
Examination: SUPPORT. **Five-year supply:** N/A.

F57. The parcel with the longest SSSI edge left out of the constraints work. Corringham Park Farm, the parcel with the longest SSSI boundary, is left out of the site assessment's constraints analysis but treated as 88 per cent developable.

Fails: justified.
Source: Lower Langdon Site Specific Assessment [14], PDF page 17 ("constraints analysis focuses on the Lower Langdon housing site only") and Table 5-5, PDF page 25.
Examination: SITE OUT contribution. **Five-year supply:** N/A.

F58. The only layout routes people into the SSSI. The policy requires a SANG to reduce pressure on the SSSI; the only layout shows no SANG and routes "Biodiversity Corridor / Active Travel Route" arrows into the SSSI woods, built in the first phase.

Fails: justified; effective.
Source: Lower Langdon Site Specific Assessment [14], Figure 5-8, PDF pages 27 to 28 ("Biodiversity Corridor / Active Travel Route"), and Figure 5-12; Regulation 19 Local Plan [1], Policy SS18, PDF pages 292 to 293.
Examination: SITE OUT contribution (justified, effective). **Five-year supply:** APPLICATION.

F59. Priority grassland inside the allocation not named. Hawksbury Grasslands, 9 hectares of MG5 priority grassland (the SSSI's notified "nationally rare" type) inside Parcel b, is not named in the policy.

Fails: justified; consistent with national policy.
Source: Local Wildlife Sites Register 2022 [18], Th66 Hawksbury Grasslands, PDF page 84; Langdon Ridge SSSI supporting information [23], section 2.1.
Examination: SUPPORT. **Five-year supply:** APPLICATION.

F60. The "green-blue network" is mostly what is there already. The "green-blue network" is mostly existing hedgerow, shaws, watercourse and roadside trees; new habitat is 4 per cent of Parcel a's developable land and 2 per cent of Parcel b's.

Fails: justified; consistent with national policy.
Source: Lower Langdon Site Specific Assessment [14], Tables 5-2 and 5-4, PDF pages 24 to 25.
Examination: SUPPORT. **Five-year supply:** N/A.

F61. A setback does not answer harm from size. A setback from the SSSI boundary would not address harm arising from the settlement's size and pathways; the Thames Basin Heaths framework applies avoidance to 5 kilometres.

Fails: justified; consistent with national policy.
Source: Thames Basin Heaths SPA Delivery Framework (2009) [130]; Natural England Impact Risk Zones [87].
Examination: SITE OUT contribution. **Five-year supply:** N/A.

Tier 4. Flood, water and ground

Test engaged: Justified; consistent with national policy. Developed at sections 4.6 and 6.3.

F62. The flood study is an unapproved draft. The Level 2 flood assessment is "NOT YET APPROVED FOR ISSUE", cites a superseded plan period and "Section X"; site appendices unpublished.

Fails: justified; consistent with national policy.
Source: Level 2 Strategic Flood Risk Assessment (AECOM, February 2026, draft) [34], quality page, PDF page 2 ("WORKING DOCUMENT / NOT YET APPROVED FOR ISSUE"), and PDF page 5 ("Section X").
Examination: MOD plan-wide; SITE OUT contribution here. **Five-year supply:** N/A.

F63. Functional floodplain on site; no model. Flood Zone 3b on site "should be retained as floodplain"; modelling "should be undertaken"; none has. The Environment Agency's own Flood Map (May 2026) puts about 24 hectares of the site, 10.7 per cent, in Flood Zone 3 and a further 5.3 per cent in Zone 2. The capacity study leaves both out of its developable area, with setbacks; what is missing is the model, so neither the functional floodplain's true extent nor the surface water risk on the land the study does build on has been tested (Appendix O).

Fails: justified; consistent with national policy.
Source: Level 2 Strategic Flood Risk Assessment [34], site table, entry ACM_071 (site 60940), PDF page 14; Environment Agency Flood Map for Planning, May 2026 [91]; Lower Langdon Site Specific Assessment [14], Table 5-1, PDF page 22.
Examination: SITE OUT (NPPF prohibits housing on functional floodplain; capacity not justified). **Five-year supply:** APPEAL ON SITE (a model at application shrinks the site and the numbers).

F64. A Main River through the site. About one kilometre of statutory Main River (Horndon Brook) runs through the site to the A13; the Agency is the responsible authority and was not consulted on the allocation so far as any published record shows.

Fails: justified; consistent with national policy.
Source: Regulation 19 Local Plan [1], PDF page 289 (Horndon Brook); Environment Agency Statutory Main River Map [91].
Examination: SUPPORT (brings the Agency into the Examination as a party with a duty).
Five-year supply: N/A.

F65. Two documents disagree on flooding. The sequential test records Flood Zone 3b on 225 hectares and carries the site through anyway; the appraisal (IIA Appendices, paragraph G.299) says the land "is not within Flood Zones 2 or 3". The Agency's map says 16 per cent of it is.

Fails: justified; consistent with national policy.
Source: Flood Risk Sequential Test Methodology (July 2026) [35], PDF pages 4 and 8; Integrated Impact Assessment Appendices [9], paragraph G.299, PDF page 439; Environment Agency Flood Map [91].
Examination: SUPPORT (three documents, three flood positions, one month). **Five-year supply:** N/A.

F66. The exception test is circular. The exception test is passed by stating the site is allocated.

Fails: consistent with national policy.
Source: Flood Risk Sequential Test Methodology [35], PDF pages 8 to 9.
Examination: MOD plan-wide. **Five-year supply:** N/A.

F67. Climate change not assessed for this land. Climate change is modelled only for the tidal Thames; the Level 1 base "uses outdated climate change allowances" (Environment Agency, 2023). The Agency's own Flood Zones plus Climate Change dataset (March 2025) puts about 38 hectares, 17 per cent of the site, in the future flood extent; the Level 2 assessment of February 2026 does not use it.

Fails: justified; consistent with national policy.
Source: Integrated Impact Assessment Appendices [9], PDF page 12 ("uses outdated climate change allowances"); Environment Agency Flood Zones plus Climate Change, March 2025 [91].
Examination: SITE OUT contribution (the developable area is unknown and the Agency's own answer is on the public record). **Five-year supply:** APPEAL ON SITE.

F68. Run-off to Stanford-le-Hope. Run-off "from the far southwestern corner of the site affects flooding in of [sic] Stanford-le-Hope"; no drainage strategy; Natural England's concern unanswered.

Fails: justified; effective.
Source: Local Plan Initial Proposals (December 2023) [48], PDF page 152 ("from the far southwestern corner of the site affects flooding in of [sic] Stanford-le-Hope"); Regulation 18 Consultation Statement [7], IP0179.
Examination: SITE OUT contribution. **Five-year supply:** APPLICATION.

F69. Upstream of a Critical Drainage Area and the estuary sites. Critical Drainage Area upstream of the estuary protected sites.

Fails: justified; consistent with national policy.
Source: Level 2 Strategic Flood Risk Assessment [34], PDF page 12 (Critical Drainage Area); Water Cycle Study Scoping Report [43], PDF pages 32 to 33.
Examination: SUPPORT. **Five-year supply:** N/A.

F70. No sewer, none costed. No sewer ("new infrastructure would be required", WCS 6.1.3), none costed; the only capacity test assessed a different distribution (Lower Langdon at 4,000, West Horndon at 5,000), in which Tilbury's residual headroom fell to 485 homes at 150 litres per head per day (that is the option's result, not the plan's headroom); the water company "noted concern".

Fails: effective; justified.
Source: Water Cycle Study Scoping Report (AECOM, March 2024) [43], paragraph 6.1.3, PDF page 27, and Table 6-1; IDP Schedule Part 2 [31].
Examination: SITE OUT (not effective); plan-wide MOD. **Five-year supply:** NIL (nothing can connect).

F71. The detailed Water Cycle Study was never produced. The detailed Water Cycle Study promised at Regulation 18 never produced; nothing beyond the 2024 scoping report; the IDP's borough-wide water cost is "Unknown" (Table 13-3, page 176).

Fails: effective; justified.
Source: Water Cycle Study Scoping Report [43]; Infrastructure Delivery Plan (Arup, July 2026) [30], Table 13-3, PDF page 176 (water "Unknown").
Examination: MOD plan-wide. **Five-year supply:** N/A.

F72. No receiving water body identified. No receiving water body identified: the scoping report treats the Mardyke as Thurrock's only Water Framework Directive catchment and never addresses the brooks south of Langdon Ridge.

Fails: justified; consistent with national policy.
Source: Water Cycle Study Scoping Report [43], PDF pages 14 to 16 and 22 (Mardyke as the only Water Framework Directive catchment).
Examination: SUPPORT. **Five-year supply:** APPLICATION.

F73. Over a groundwater protection zone. The whole Lower Langdon parcel lies in groundwater Source Protection Zone 3 (Environment Agency mapping; Corringham Park Farm is outside it); scored worse than West Horndon for water.

Fails: justified; consistent with national policy.
Source: Environment Agency Source Protection Zones [91]; Integrated Impact Assessment Appendices [9] (water scoring).
Examination: SUPPORT. **Five-year supply:** N/A.

F74. Contaminated land named and then ignored. The "Former Works – Basildon" contaminated land designation is named in the site text (page 289), appears in no policy requirement, no HLAA record and no site score; infiltration drainage proposed over it, inside the Source Protection Zone.

Fails: justified; effective.
Source: Regulation 19 Local Plan [1], PDF page 289 ("Former Works - Basildon").
Examination: MOD. **Five-year supply:** APPLICATION.

F75. The flood risk is modelled, not historic. No recorded flood outline lies within the site (Agency records 1953, 1958, 1968 nearby); the risk is modelled, not historic, which is why the missing model matters.

Fails: justified.
Source: Environment Agency Recorded Flood Outlines and Historic Flood Map [91].
Examination: SUPPORT (context). **Five-year supply:** N/A.

F76. No soil survey. No agricultural land classification survey; significant negative for soils with and without mitigation.

Fails: justified; consistent with national policy.
Source: Integrated Impact Assessment [8], soils scoring; Natural England Provisional Agricultural Land Classification (ALC) and Post 1988 ALC [121].
Examination: SUPPORT. **Five-year supply:** N/A.

F77. The only water test was for a different plan. The only treatment capacity test assessed a distribution the plan did not adopt; the detailed Water Cycle Study it called for was never produced; the IDP's connection-cost reassurance applies only to sites near existing wastewater infrastructure, which Lower Langdon is not.

Fails: effective; justified.
Source: Water Cycle Study Scoping Report [43], Table 6-1; Infrastructure Delivery Plan [30], PDF page 75; report/WATER-AND-SEWERAGE-NOTE-2026-09-23.md (Appendix K).
Examination: MOD plan-wide; SITE OUT contribution. **Five-year supply:** NIL.

F78. SS18 is 44 per cent of the catchment's planned growth. SS18's 12,000 people are about 44 per cent of the population growth Anglian Water's Drainage and Wastewater Management Plan provides for in the whole Tilbury catchment to 2050; the catchment is rated "very significant" for pollution incidents and sewer collapses.

Fails: effective.
Source: Infrastructure Delivery Plan [30], PDF page 75 (Anglian Water DWMP: 153,000 to over 180,000); report/WATER-AND-SEWERAGE-NOTE-2026-09-23.md (Appendix K).
Examination: SUPPORT. **Five-year supply:** N/A.

F79. No extra treatment capacity permitted. Tilbury WRC's permit, varied 10 December 2025, keeps dry weather flow at 40,000 m3 a day, lower than 2010 to 2016 (42,514); no extra capacity has been permitted for the plan.

Fails: effective.
Source: Environment Agency permit register, Tilbury WRC, variation of 10 December 2025 [114] (Appendix K).
Examination: SITE OUT contribution (not effective); MOD plan-wide. **Five-year supply:** APPLICATION.

F80. The plan exceeds the water company's allowance. The plan's in-period homes exceed Essex & Suffolk Water's Thurrock allowance (19,460 over 20 years) by 5,946; SS18 is 57 per cent of the excess; the Essex zone's baseline deficit is 35.5 to 43.9 Ml/d and its planned surplus 16.99 Ml/d (0.13 Ml/d without Linford); the excess homes draw about 17 per cent of that surplus. The WCS itself found a 14,020-home shortfall for the highest option.

Fails: effective; consistent with national policy.
Source: Essex & Suffolk Water, WRMP24 final (October 2024) [116]; report/WATER-AND-SEWERAGE-NOTE-2026-09-23.md (Appendix K).
Examination: MOD plan-wide; SITE OUT contribution. **Five-year supply:** N/A.

F81. The Council itself called the water forecasts too low. Thurrock Council told the water company in 2023 that its growth projections were "very conservative" and its demand-reduction assumptions "overly optimistic"; the water company kept them; the IDP now relies on them for its conclusion that supply is sufficient.

Fails: effective; justified.
Source: Essex & Suffolk Water, Draft WRMP24 Statement of Response, 11 September 2023 [117], refs 69 to 74; Infrastructure Delivery Plan [30], PDF pages 76 to 77.
Examination: SUPPORT. **Five-year supply:** N/A.

F82. Best and most versatile land never surveyed. Provisional ALC: about 5.4 ha of Grade 2 (best and most versatile) and 209 ha of Grade 3 never surveyed to separate 3a from 3b; ALC scored "for information" only. The land is in continuous arable use: wheat on 106 ha in an average year (61 to 157 ha, 2021 to 2024), about 740 to 910 tonnes of wheat a year, never measured by the Council [142].

Fails: justified; consistent with national policy.
Source: Natural England Provisional ALC and Post 1988 ALC [121]; Integrated Impact Assessment [8]; Rural Payments Agency Crop Map of England 2021 to 2024 and Defra cereal production statistics [142].
Examination: SUPPORT. **Five-year supply:** N/A.

Tier 5. Infrastructure and delivery

Test engaged: Effective. Developed at sections 5.3 to 5.6.

F83. Infrastructure planned for 4,000 homes, not 5,000. IDP costed for 4,000 homes, not 5,000; Corringham Park Farm appears only as a bus destination and a road end.

Fails: effective.
Source: Infrastructure Delivery Plan [30], PDF page 165 ("the proposed new 4,000 homes at Lower Langdon"); IDP Schedule Part 2 [31].
Examination: SITE OUT (not effective). **Five-year supply:** NIL.

F84. Everything rests on developer contributions. Everything funded from "Developer Contributions"; gap column blank; the developer loses money before paying.

Fails: effective.
Source: IDP Schedule Part 2, Lower Langdon [31], PDF page 1 (funding "Developer Contributions"; gap column blank); Viability Assessment [29], Table 8.2, PDF page 168.
Examination: SITE OUT. **Five-year supply:** APPEAL ON SITE (contributions negotiated down).

F85. No provider has confirmed capacity. No provider has confirmed capacity (asked twice by a member at Cabinet, 26 August 2026).

Fails: effective.
Source: Cabinet, 26 August 2026: published minutes [6] and webcast (report/CABINET-2026-08-26-MEETING-TESTED-COMBINED.md); the published evidence base (no provider confirmation).
Examination: SUPPORT plan-wide; SITE OUT contribution. **Five-year supply:** N/A.

F86. No GP capacity. GP capacity "not available in any of the PCN [Primary Care Network] areas"; the ICB "is not funded to act as a property developer".

Fails: effective.
Source: Infrastructure Delivery Plan [30], PDF pages 123 to 124 ("not available in any of the PCN areas"; the ICB "is not funded to act as a property developer").
Examination: MOD plan-wide. **Five-year supply:** N/A.

F87. The hospital is described wrongly. Basildon Hospital serves 450,000 and cannot absorb Orsett; no acute assessment; rated inadequate by the CQC on 15 October 2025 (urgent and emergency care inadequate, Section 31 conditions), which the IDP of July 2026 misstates as "good" (2019); 3,700 to 5,600 extra A&E attendances a year from SS18.

Fails: effective; justified.
Source: Infrastructure Delivery Plan [30], PDF page 118; Care Quality Commission, 15 October 2025 [113]; NHS England Digital, A&E activity 2024-25 [119].
Examination: SUPPORT. **Five-year supply:** N/A.

F88. Rail never tested. c2c and Network Rail never engaged; 361 peak rail trips, 108 extra passengers per service, 66 parking spaces, no capacity test.

Fails: effective.
Source: Lower Langdon Site Specific Assessment [14], Table 6-4, PDF page 36.
Examination: SITE OUT contribution. **Five-year supply:** APPLICATION.

F89. A junction over capacity with no fix. The A13/B1007/A1014 northbound diverge (node 76225) at 102.55 per cent with mitigation "N/A, further monitoring"; four junctions high impact, all "monitoring".

Fails: effective.
Source: Local Plan Transport Assessment (Arup, August 2026) [32], PDF page 28 (node 76225, A13/B1007/A1014 northbound diverge, 84.95 to 102.55 per cent; "N/A - junction identified for further monitoring").
Examination: SITE OUT contribution; MOD plan-wide. **Five-year supply:** APPEAL ON SITE (no severe-impact test applied).

F90. Access by country lanes. Northern access via South Avenue (unmade, 445 m) and One Tree Hill (single lane, national speed limit, through the Country Park).

Fails: effective.
Source: Lower Langdon Site Specific Assessment [14], PDF page 10 (One Tree Hill "single-lane carriageway"); IDP Schedule Part 2 [31], PDF page 1 (South Avenue road).
Examination: SITE OUT contribution. **Five-year supply:** APPLICATION.

F91. Buses and cycling unfunded and untested. Bus and cycle programmes "do not have committed funding"; new bus services "not tested".

Fails: effective.
Source: Local Plan Transport Assessment [32], PDF pages 19 and 24 ("do not have committed funding"); Infrastructure Delivery Plan [30], PDF pages 43 and 46.
Examination: MOD plan-wide. **Five-year supply:** N/A.

F92. Trip forecasts on old and skewed data. Trip forecasts from 2011 data for one rural census area; the commuting ratio fixed from a pandemic year the consultant calls "skewed".

Fails: effective; justified.
Source: Lower Langdon Site Specific Assessment [14], PDF pages 11 to 12 (2011 data); Housing Needs Assessment (Turley, June 2025) [41], PDF page 30 (2021 commuting ratio "skewed" by the pandemic).
Examination: SUPPORT. **Five-year supply:** N/A.

F93. Police, fire and library unfunded. Borough-wide police (£21.0 million) and fire (£11.8 million) contributions, and the Lower Langdon library: "Unfunded".

Fails: effective.
Source: IDP Schedule Part 1 (borough-wide), PDF page 5 (police and fire "Unfunded"); IDP Schedule Part 2, Lower Langdon [31] (library "Unfunded").
Examination: SUPPORT. **Five-year supply:** N/A.

F94. No delivery vehicle, no land assembly. No delivery vehicle, no compulsory purchase costing, no land assembly evidence; one landowner has "total control".

Fails: effective.
Source: Regulation 19 Local Plan [1], Policy SS18 paragraph 9, PDF page 291; Viability Assessment [29], paragraph 8.68, PDF page 166 ("total control").
Examination: SITE OUT contribution. **Five-year supply:** APPEAL ON SITE.

F95. Traveller pitches in a site that delivers nothing in the first five years from adoption. Twenty Traveller pitches inside a site whose promoter says it delivers nothing in the first five years from adoption (to about 2033), against a five-year pitch need the plan already cannot meet.

Fails: effective.
Source: Regulation 19 Local Plan [1], Policy SS18, PDF page 291 ("20 serviced" pitches); Appendix 2 trajectory, PDF page 419.
Examination: MOD (they must be found elsewhere). **Five-year supply:** N/A.

F96. No monitoring trigger for failure. Monitoring framework has no trigger for the failure of either new town.

Fails: effective.
Source: Regulation 19 Local Plan [1], Appendix 1, monitoring framework.
Examination: MOD. **Five-year supply:** APPEAL BOROUGH (no contingency when the towns slip).

F97. Infrastructure spread over the wrong number of homes. The viability study divided the IDP's £256,596,000 by 5,000 homes (£51,325) although the schedule is costed for 4,000, and appraised Corringham Park Farm at a generic £30,000 a home: £64,149 a home on the Council's own figures, before water, sewerage, rail, buses, SANG, land, inflation and optimism bias.

Fails: effective.
Source: Viability Assessment [29], paragraphs 8.64 and 8.72; Infrastructure Delivery Plan [30], Tables 13-3 and 13-4; report/INFRASTRUCTURE-COST-CHECK-NOTE-2026-09-23.md (Appendix J).
Examination: SITE OUT contribution (viability understated). **Five-year supply:** APPEAL ON SITE.

F98. The appraisals model 5,250 homes and too little infrastructure. The Council's two appraisals model 5,250 homes for a 5,000-home allocation, 4,250 of them on a parcel its own housing land study puts at 3,378, and carry £21.3 million less infrastructure at 5,000 homes than its own IDP total.

Fails: effective; justified.
Source: Viability Assessment [29], appendix appraisals for sites 60940 (PDF pages 1142 to 1148) and 60893 (PDF pages 1205 to 1211); Infrastructure Delivery Plan [30], Tables 13-3 and 13-4; HLAA [15], PDF page 37 (Appendix J).
Examination: SUPPORT (justified). **Five-year supply:** N/A.

F99. The Council's published maxima do not match its stated test. Table 8.2's maxima (34 and 39 per cent) are reproduced by a land price about 13 times existing use value, not the stated ten; its minus £9.8 million at 50 per cent is not reproduced by the appendix's own sensitivity table.

Fails: effective; justified.
Source: Viability Assessment [29], Table 8.2, PDF pages 168 to 170, and appendix sensitivity tables; report/VIABILITY-REBUILD-NOTE-2026-10-01.md (Appendix J).
Examination: SUPPORT (justified). **Five-year supply:** N/A.

F100. Corrected only by the Council's own figures, no affordable housing is viable. Rebuilt and corrected only by the Council's own IDP total and capacity figures, SS18 supports at most 30 per cent (IDP) and 17 per cent (capacity) affordable housing, and none once the land its own drainage, woodland and SSSI policies require is set aside.

Fails: effective; justified.
Source: report/VIABILITY-REBUILD-NOTE-2026-10-01.md; evidence/data/viability-ss18-combined-2026-10-01.json; evidence/data/ss18-stepdown-2026-10-01.json (Appendices I and J).
Examination: SITE OUT contribution (effective; exceptional circumstances). **Five-year supply:** APPEAL ON SITE.

F101. Costs that do not reconcile. One Tree Hill bridge £15,000,000 in the Rough Order of Cost and £22,500,000 in the IDP, exactly 1.5 times, unreconciled; transport costs from "limited" design and a Teams screenshot; 20 per cent contingency, no optimism bias although the IDP says it should be applied.

Fails: effective.
Source: Rough Order of Cost Estimate (18 May 2026) [39]; IDP Schedule Part 2 [31]; Infrastructure Delivery Plan [30], paragraph on optimism bias; report/INFRASTRUCTURE-COST-CHECK-NOTE-2026-09-23.md (Appendix J).
Examination: MOD. **Five-year supply:** N/A.

F102. Members relied on a hospital rating six years old. The IDP describes Basildon Hospital by a 2019 "good" rating; the CQC rated it inadequate, with conditions, on 15 October 2025. Members relied on an infrastructure document two grades and six years out of date.

Fails: effective; justified.
Source: Infrastructure Delivery Plan [30], PDF page 118; Care Quality Commission, 15 October 2025 [113]; report/HEALTH-CHECK-NOTE-2026-09-23.md.
Examination: SUPPORT. **Five-year supply:** N/A.

Tier 6. Housing numbers

Test engaged: Justified; effective. Developed at sections 4.5, 5.1 and 6.6.

F103. The 28,880 is a choice. The 28,880 is a choice: "would not be necessary" for baseline growth; the Council "may" plan for it "if it chooses".

Fails: justified; positively prepared.
Source: Housing Needs Assessment [41], paragraphs 4.9 and 4.20, PDF page 31 ("would not be necessary"; "if it chooses").
Examination: MOD (restate the requirement). **Five-year supply:** BAR UP (1,444 a year instead of 1,077).

F104. The Government minimum already supports more jobs than the plan states. The Government minimum already supports about 20,009 jobs, more than the plan's stated 16,975.

Fails: justified.
Source: Housing Needs Assessment [41], paragraph 4.5, PDF pages 30 to 31 (about 20,009 jobs); Regulation 19 Local Plan [1], Policy SP03, PDF page 36 (16,975).
Examination: SUPPORT. **Five-year supply:** BAR UP.

F105. A jobs figure the plan never states. 16,975 is a part-figure; housing was sized to 31,166 jobs, never stated.

Fails: justified.
Source: Housing Needs Assessment [41], PDF pages 30 to 31 (31,166); Regulation 19 Local Plan [1], PDF pages 36 and 38 (16,975); EDNA [42], PDF pages 55 and 62.
Examination: SUPPORT. **Five-year supply:** N/A.

F106. The minimum and the buffer stated several ways. The minimum stated three ways; the buffer as 14 and 24 per cent.

Fails: justified; effective.
Source: Regulation 19 Local Plan [1], PDF pages 34, 43 and 46 ("14%" and "24%"); Cabinet report [4], Table 4; Integrated Impact Assessment [8], paragraphs 2.62 and 2.64.
Examination: MOD. **Five-year supply:** N/A.

F107. The headline counts homes after 2044. In-period supply 25,406 against 28,880; the 35,906 headline counts 10,500 after 2044.

Fails: justified; effective.
Source: Regulation 19 Local Plan [1], paragraph 4.2.3, PDF page 34, and Table 2, PDF page 43; Appendix 2, PDF page 419.
Examination: MOD (Inspector adjusts). **Five-year supply:** BAR UP.

F108. SS18 comes late and runs past the plan. SS18 delivers 600 homes by 2033/34 on the plan's trajectory, none in the first five years from adoption on the promoter's account, and 1,600 after the plan ends.

Fails: effective.
Source: Regulation 19 Local Plan [1], Appendix 2 trajectory, PDF page 419.
Examination: SITE OUT contribution (release for post-period need; safeguarded land not used). **Five-year supply:** NIL.

F109. The plan meets the minimum without SS18. The plan meets the Government minimum without SS18.

Fails: justified.
Source: Regulation 19 Local Plan [1], Table 2, PDF page 43, and Appendix 2, PDF page 419.
Examination: SUPPORT (removal costs nothing). **Five-year supply:** N/A.

F110. A building rate never achieved. The delivery rate has no precedent: 1,600 to 1,700 homes a year assumed for fifteen years from 2029, against a best year since 2001 of 1,209 gross completions (once, in 2004/05; 1,080 net additional dwellings on the Government's Live Table 122), 855 since 2005, an average of 413 in 2018 to 2024 and 407 in the two years to March 2026. The HNA itself says 1,444 a year is "nearly a fifth more than have been delivered in any single year since at least 2001".

Fails: effective; justified.
Source: Housing Needs Assessment [41], paragraphs 4.15 and 4.20, PDF pages 24 and 34; MHCLG Live Table 122 [112]; Regulation 19 Local Plan [1], Appendix 2, PDF page 419.
Examination: MOD (stepped trajectory) and SUPPORT for SITE OUT (a trajectory that needs SS18 to reach a rate never achieved is not "effective"). **Five-year supply:** BAR UP.

F111. The jobs uplift is a hand adjustment. The jobs uplift is a hand adjustment, not a forecast: Oxford Economics baseline 729 jobs a year raised to 1,558 by lifting ports and logistics from 0.9 to 2.25 per cent a year and construction from 1.5 to 2 per cent, on "discussions with Freeport landholders", in a table that itself records slowed Freeport delivery and "high levels of uncertainty".

Fails: justified.
Source: Economic Development Needs Assessment (August 2025) [42], paragraphs 4.30 to 4.33 and Table 4.9, PDF page 52.
Examination: MOD (independent validation or restated requirement). **Five-year supply:** BAR UP.

F112. The Freeport is delivering far less. The Freeport has so far delivered about 1,600 jobs across East London and South Essex (RSA, 12 May 2026) and its own September 2026 Growth Plan promises "up to 12,000" local jobs over 20 years, 600 a year; the plan assumes 1,558 a year in Thurrock alone.

Fails: justified.
Source: Royal Society of Arts, press release, 12 May 2026, and Thames Freeport Growth Plan, September 2026 (Your Thurrock, 14 September 2026) [97].
Examination: MOD. **Five-year supply:** BAR UP.

F113. Where would the workers live? No document shows where the 31,166 workers would live: the HNA assumes they live in Thurrock; commuting, contractor labour and automation are not modelled; construction jobs are temporary and are used to size permanent homes.

Fails: justified.
Source: Housing Needs Assessment [41], paragraph 4.19, PDF page 35.
Examination: MOD. **Five-year supply:** N/A.

F114. No housing return for 2024/25. Thurrock submitted no housing return to Government for 2024/25; its figure was imputed.

Fails: justified.
Source: MHCLG Live Table 122 [112], Thurrock 2024-25 (imputed); report/HOUSEBUILDING-RECORD-NATIONAL-COMPARISON-NOTE-2026-09-23.md.
Examination: SUPPORT (monitoring credibility). **Five-year supply:** BAR UP.

F115. About one year's supply on adoption. 1,457 homes in five years against 7,220; about one year's supply on adoption; 27 per cent Housing Delivery Test.

Fails: effective; consistent with national policy.
Source: Regulation 19 Local Plan [1], Appendix 2, PDF page 419 (1,457 in five years); requirement 1,444 a year (5 x 1,444 = 7,220); Housing Delivery Test 2023 measurement.
Examination: MOD (stepped trajectory required). **Five-year supply:** APPEAL BOROUGH from the day of adoption; APPEAL ON SITE if allocated.

F116. The stepped trajectory is not set out. The "stepped trajectory" is not set out.

Fails: effective.
Source: Regulation 19 Local Plan [1], Policy SP05 criterion 10, PDF page 44.
Examination: MOD. **Five-year supply:** BAR UP until it is.

F117. Green Belt released for homes after the plan. Green Belt released for roughly twice the shortfall; 9,300 post-period homes without safeguarded land.

Fails: justified; consistent with national policy.
Source: Regulation 19 Local Plan [1], Appendix 2, PDF page 419; NPPF December 2024 [74], paragraph 149(c) and (d).
Examination: SITE OUT contribution; MOD plan-wide. **Five-year supply:** N/A.

F118. No urban capacity or brownfield examination. No urban capacity study, density test, justified windfall figure or brownfield examination (NPPF 146).

Fails: justified; consistent with national policy.
Source: NPPF December 2024 [74], paragraph 146; the published evidence base (no urban capacity study); Cabinet report [4], PDF page 13.
Examination: MOD plan-wide; SITE OUT contribution. **Five-year supply:** N/A.

F119. Almost no council has ever built at this rate. On the Government's own statistics (Live Tables 122 and 125) only two councils in England have sustained, over any twenty years since 2001, the 2.04 per cent annual growth 1,444 homes a year means for Thurrock; no council in Essex has built 1,444 in a single year; Thurrock's best decade averaged 567.

Fails: effective; justified.
Source: MHCLG Live Tables 122 and 125 [112] [118]; report/HOUSEBUILDING-RECORD-NATIONAL-COMPARISON-NOTE-2026-09-23.md (Appendix H).
Examination: MOD (requirement); SUPPORT for SITE OUT. **Five-year supply:** BAR UP.

F120. Jobs grew with far fewer homes than the plan says are needed. Between 2015 and 2024 Thurrock added about 15,000 jobs and 5,101 net additional homes: about 2.9 jobs per home against the HNA's 1.08. Jobs growth at the plan's assumed rate came with about two fifths of the homes the plan says it needs; the HNA does not model in-commuting.

Fails: justified.
Source: ONS Business Register and Employment Survey [110]; MHCLG Live Table 122 [112]; Housing Needs Assessment [41], paragraph 4.19, PDF page 35; report/BRES-JOBS-RECORD-NOTE-2026-09-23.md (Appendix G).
Examination: MOD. **Five-year supply:** BAR UP.

F121. The Freeport job capacity is overstated three times. London Gateway, the one Freeport site built, supports one job per 248 square metres on its owner's figures; the EDNA assumes 73.5. The "over 20,000 jobs" Freeport capacity is overstated by about three times.

Fails: justified.
Source: DP World news release, 12 March 2025 [111]; EDNA [42], Table 4.9, PDF page 52; report/LONDON-GATEWAY-DENSITY-NOTE-2026-09-23.md (Appendix G).
Examination: MOD. **Five-year supply:** BAR UP.

F122. A manufacturing forecast with no precedent. Manufacturing raised from minus 1.7 to plus 5 per cent a year; the borough's record is 1.7 per cent a year over the decade, all before 2019, and decline since.

Fails: justified.
Source: EDNA [42], Table 4.9, PDF page 52; ONS Business Register and Employment Survey [110] (Appendix G).
Examination: SUPPORT. **Five-year supply:** N/A.

F123. The Freeport reliefs end before SS18 delivers. Freeport tax reliefs expire on 30 September 2031; on the plan's trajectory SS18 reaches 600 homes by 2033/34, and on the promoter's account none in the first five years from adoption (to about 2033). The homes justified by the Freeport arrive after its reliefs end.

Fails: justified; effective.
Source: HM Treasury, Autumn Statement 2023 [123]; Regulation 19 Local Plan [1], Appendix 2, PDF page 419.
Examination: SUPPORT. **Five-year supply:** N/A.

F124. Brownfield and other capacity never examined. Brownfield Land Register: 3,755 to 3,950 dwellings, three quarters at Purfleet; the examination NPPF paragraph 146 requires (urban capacity, density, windfall, neighbours) not done; 17,055 homes on 79 unallocated HLAA sites found suitable, available and achievable (1,014 non-Green Belt; 1,444 previously developed Green Belt).

Fails: justified; consistent with national policy.
Source: Thurrock Brownfield Land Register, April 2024 [120]; Housing Land Availability Assessment [15] [38]; report/BROWNFIELD-AND-ALTERNATIVES-NOTE-2026-09-23.md and report/REPLACEMENT-SUPPLY-NOTE-2026-09-23.md (Appendix N).
Examination: MOD plan-wide; SITE OUT contribution. **Five-year supply:** N/A.

Tier 7. What Cabinet was told

Test engaged: Record of what Cabinet was told. Developed at section 4.7.

F125. "Evidence gathering completed". "Evidence gathering completed".

Fails: justified.
Source: Cabinet, 26 August 2026, webcast transcription (report/CABINET-2026-08-26-MEETING-TESTED-COMBINED.md); compare the missing surveys, flood model and water study (F37, F63, F71).
Examination: SUPPORT (record). **Five-year supply:** N/A.

F126. "Carefully assessed locations". "Carefully assessed locations where boundary changes are necessary".

Fails: justified.
Source: Cabinet webcast, 26 August 2026 (statement A11 in report/CABINET-2026-08-26-MEETING-TESTED-COMBINED.md); Stage 2 Green Belt Assessment, Appendix 4.5 [13], CS-01, PDF pages 4 to 6.
Examination: SUPPORT. **Five-year supply:** N/A.

F127. "Strengthens protection for environmental assets". "Strengthens protection for environmental assets".

Fails: justified.
Source: Cabinet webcast, 26 August 2026 (statement A12); Regulation 18 Consultation Statement [7], IP0179, PDF page 134.
Examination: SUPPORT. **Five-year supply:** N/A.

F128. "A thousand in Stifford, Ockendon and Stanford otherwise". "A thousand in Stifford, Ockendon and Stanford otherwise".

Fails: justified.
Source: Cabinet webcast, 26 August 2026 (statement A18); Integrated Impact Assessment [8], Table 2.2, PDF page 53.
Examination: SUPPORT (contradicted by Table 2.2). **Five-year supply:** N/A.

F129. "Protects Orsett, Bulphan and Horndon". "Protects Orsett, Bulphan and Horndon"; Stanford not mentioned.

Fails: justified.
Source: Cabinet webcast, 26 August 2026 (statements F3, S7, S11, S13); Regulation 19 Local Plan [1], PDF page 33.
Examination: SUPPORT. **Five-year supply:** N/A.

F130. "Over 30,000 homes". "Over 30,000 homes".

Fails: justified.
Source: Cabinet webcast, 26 August 2026 (statement A20); Regulation 19 Local Plan [1], Table 2, PDF page 43.
Examination: SUPPORT. **Five-year supply:** BAR UP (members did not know the in-period shortfall).

F131. "The government cannot change this plan". Cllr Willoughby's conditional vote answered with "the government cannot change this plan".

Fails: justified.
Source: Cabinet minutes, 26 August 2026 [6], PDF page 4 (Cllr Willoughby); webcast (statement B5); MHCLG direction to Basildon, 21 July 2026 [95].
Examination: N/A (December vote record). **Five-year supply:** N/A.

F132. "Commitments from developers". "Commitments from developers".

Fails: justified.
Source: Cabinet webcast, 26 August 2026 (statement F5); Viability Assessment [29], paragraphs 8.63 to 8.68, PDF page 166.
Examination: SUPPORT. **Five-year supply:** N/A.

F133. The decision was rushed. Planning Inspectorate advisory visits predate every SS18 document; King's Counsel review scope unstated; evidence published 12 to 19 August for a 26 August decision.

Fails: justified; legal compliance.
Source: Cabinet report [4], PDF pages 5 and 19 (advisory visits) and PDF page 6 (paragraph 4.19, King's Counsel review, "sound and legally compliant"); evidence page publication dates, 12 to 19 August 2026.
Examination: SUPPORT. **Five-year supply:** N/A.

Tier 8. August 2026 Framework, application stage

Test engaged: Effective (August 2026 decision-making policies). Developed at section 5.7.

F134. National policy N6(1)(b) and (3): development affecting a SSSI. N6(1)(b) and N6(3): development affecting a SSSI, inside or outside it, supported only with no adverse effect.

Fails: effective.
Source: National Planning Policy Framework, August 2026 [75], national decision-making policy N6; report/NPPF-AUGUST-2026-NOTE-2026-09-04.md.
Examination: N/A. **Five-year supply:** NIL (an allocation that cannot be permitted is not supply); APPLICATION refusal default.

F135. National policy N6(2): ancient woodland. N6(2): loss of ancient woodland "should be refused"; the Laindon Road link.

Fails: effective.
Source: NPPF August 2026 [75], policy N6(2); IDP Schedule Part 2 [31], PDF page 1 (Laindon Road link).
Examination: SUPPORT (not effective). **Five-year supply:** APPLICATION.

F136. National policy N6(1)(a): no appropriate assessment to rely on. N6(1)(a): no appropriate assessment covers SS18 for any application to rely on.

Fails: effective; legal compliance.
Source: NPPF August 2026 [75], policy N6(1)(a); Habitats Regulations Assessment [11] (F1).
Examination: N/A. **Five-year supply:** APPLICATION.

F137. Golden Rules: 50 per cent affordable on released Green Belt. Golden Rules: 50 per cent affordable default on released Green Belt; unviable at 35.

Fails: effective; consistent with national policy.
Source: NPPF December 2024 [74], paragraphs 156 to 157; NPPF August 2026 [75], policy GB8; Viability Assessment [29], paragraph 8.65 and Table 8.2, PDF pages 166 to 168.
Examination: SUPPORT. **Five-year supply:** APPEAL ON SITE (viability case cuts it back).

F138. Grey belt and station-led release do not reach this land. Grey belt loosening does not reach this land; station-led release does not reach it.

Fails: consistent with national policy.
Source: NPPF August 2026 [75]; Stage 2 Green Belt Assessment, Appendix 4.5 [13], CS-01, PDF page 6.
Examination: SUPPORT. **Five-year supply:** APPEAL BOROUGH elsewhere, not here.

F139. Annex A: very limited weight for inconsistent policies. Annex A: the plan's policies get "very limited weight" where inconsistent with national decision policies.

Fails: effective.
Source: NPPF August 2026 [75], Annex A.
Examination: N/A. **Five-year supply:** APPEAL BOROUGH ("control" is smaller than promised).

Tier 9. Process

Test engaged: Process; positively prepared. Developed at sections 3.5 and 8.

F140. Section 20 certification. Section 20 certification. The Council must certify on submission that it has complied with the legislative requirements and "thinks the document is ready for independent examination"; the Minister's letter of 30 July 2024 says an authority "should not be submitting for examination a deficient plan believing the Inspector will use significant time and resource during the examination to 'fix' it". A Council told that its HRA does not assess SS18 cannot make that certification for the policy without qualification.

Fails: legal compliance.
Source: Planning and Compulsory Purchase Act 2004 [80], section 20; Minister's letter, 30 July 2024 [78].
Examination: SUPPORT (frames the December resolution as the way to submit on the evidence). **Five-year supply:** N/A.

F141. The Minister's flexibility letters. The Minister's letters of 8 October 2025 and 15 July 2026 tell Inspectors to be flexible on proportionality of evidence and on viability and deliverability for legacy plans. Viability is therefore not run as a free-standing ground; the promoter's non-delivery and the absence of a delivery vehicle are placed inside the exceptional circumstances test for Green Belt release as "a fundamental obstacle to delivery", the 2026 letter's own carve-out.

Fails: context (how the grounds are put).
Source: Minister's letters of 8 October 2025 and 15 July 2026 [78].
Examination: framing, not a flaw. **Five-year supply:** N/A.

F142. The affected communities were consulted last. No resident on the northern lanes written to; affected-settlement drop-ins last, in working hours; none in Horndon, Fobbing, Langdon Hills, Laindon.

Fails: positively prepared; legal compliance.
Source: Regulation 19 Guidance (September 2026) [51], PDF page 12; Council drop-in schedule [94]; Statement of Community Involvement [53].
Examination: SUPPORT (positively prepared). **Five-year supply:** N/A.

F143. The first drop-in had no evidence base. First drop-in: one map, one hard copy, no evidence base.

Fails: positively prepared.
Source: report/FILE-NOTE-2026-09-22-GRAYS-DROP-IN.md (my attendance note).
Examination: SUPPORT. **Five-year supply:** N/A.

F144. Four names for one site. Four names for the site; "North Stanford" 96 times in the July 2026 IIA Appendices, never in the plan.

Fails: positively prepared; legal compliance.
Source: Integrated Impact Assessment Appendices (July 2026) [9]: "North Stanford" 96 times (from PDF page 4); Regulation 19 Local Plan [1] (never used).
Examination: SUPPORT. **Five-year supply:** N/A.

F145. Appraisal text copied from West Horndon. SS18 appraisal text copied from West Horndon; east and west reversed; a wood that does not exist; the B1007 mislabelled; density 30 to 70 and 30 to 100.

Fails: justified; legal compliance.
Source: Integrated Impact Assessment [8], paragraph 6.433 ("West Horndon village"), PDF pages 399 to 406; Lower Langdon Site Specific Assessment [14] (density 30 to 70 and 30 to 100).
Examination: SUPPORT. **Five-year supply:** N/A.

F146. Recent buyers relied on a plan that did not propose the site. Purchasers between 2024 and 2026 relied on a draft plan that did not propose the site.

Fails: positively prepared.
Source: Local Plan Initial Proposals (December 2023) [48], PDF page 154 (site not proposed).
Examination: SUPPORT (fairness). **Five-year supply:** N/A.

F147. The Council is under Best Value intervention. Council under Best Value intervention to April 2028.

Fails: context.
Source: MHCLG Best Value intervention, Thurrock Council, to April 2028 (Commissioners).
Examination: N/A. **Five-year supply:** N/A (context).

F148. No neighbour's need to meet. The only neighbour to welcome Lower Langdon (Southend) did so for its own unmet need; the plan claims to meet no other authority's need; no statement of common ground exists.

Fails: justified; legal compliance.
Source: Regulation 18 Consultation Statement [7]; report/NEIGHBOURS-NEED-NOTE-2026-09-23.md (Appendix N).
Examination: SUPPORT. **Five-year supply:** N/A.

F149. The site selection departs from national guidance. The site selection departs from Planning Practice Guidance (Paragraphs 002, 004 and 018) without explanation: Green Belt, priority habitat and landscape carry no weight, and a Green Belt penalty at the method's own middle level would make both new towns unsuitable.

Fails: justified; consistent with national policy.
Source: Planning Practice Guidance, Housing and Economic Land Availability Assessment, paragraphs 002, 004 and 018 [126]; Site Selection Methodology [37]; report/BALANCE-SCORE-NOTE-2026-09-25.md.
Examination: SITE OUT contribution (justified). **Five-year supply:** N/A.

F150. Allocations on sites the housing land study discounted. Three housing allocations rest on sites the HLAA discounted; SS18 is the largest and the only one discounted as unable to stand as a settlement; no re-assessment is recorded.

Fails: justified.
Source: Housing Land Availability Assessment Appendices [15] and Methodology [125].
Examination: SUPPORT. **Five-year supply:** N/A.

F151. No common ground with either water company. No statement of common ground with Essex & Suffolk Water or Anglian Water on a plan that exceeds one's supply allowance and sends its sewage to the other's overflowing works.

Fails: effective; legal compliance.
Source: The published evidence base (no statement of common ground); Essex & Suffolk Water WRMP24 [116]; Environment Agency returns [115].
Examination: SUPPORT; MOD plan-wide. **Five-year supply:** N/A.

Tier 10. Plan-wide

Test engaged: Plan-wide context, not a ground of this representation. Developed at sections 4.1 and 8.

F152. Seven allocations on "Not recommended" Green Belt. Seven strategic allocations on "Not recommended" Green Belt, no reasons.

Fails: plan-wide context.
Source: Stage 2 Green Belt Assessment appendices [13] [44] [45] [46]; report/SITE-SELECTION-RESCORE-NOTE-2026-09-23.md.
Examination: SITE OUT for the weakest; MOD. **Five-year supply:** N/A.

F153. West Horndon on the Environment Agency's maps. West Horndon on the Environment Agency's own maps (HLAA site 60913, 463 ha): 26 per cent Flood Zone 3, a further 20 per cent Flood Zone 2, half the site in the future flood extent with climate change, 6.8 km of Main River, 36 per cent inside the recorded September 1968 flood outline; the Council's own Sequential Test ranks it 44th of 87. Neither new town's capacity deducts a hectare for it (gis/ea-open-data, plan-wide check, 10 September).

Fails: plan-wide context.
Source: Environment Agency Flood Map, Flood Zones plus Climate Change, Main Rivers and Recorded Flood Outlines [91]; HLAA site 60913 polygon.
Examination: SITE OUT risk at West Horndon; MOD plan-wide (capacity and exception test). **Five-year supply:** N/A.

F154. Eight "should be avoided" heritage ratings allocated. Eight "Major Adverse, should be avoided" heritage ratings allocated, West Horndon among them.

Fails: plan-wide context.
Source: Heritage Impact Assessment, Housing Sites [36].
Examination: SITE OUT risk at West Horndon, SS13, SS14, SS11. **Five-year supply:** N/A.

F155. Affordable housing made the variable. Two of fifteen strategic sites carry the affordable housing policy; the Council made affordable housing the variable.

Fails: plan-wide context.
Source: Viability Assessment [29], Table 8.2, PDF pages 168 to 170; Regulation 19 Local Plan [1], Policy DMP12, Table 5, PDF page 317.
Examination: MOD. **Five-year supply:** N/A.

F156. **£1.94 billion with water "Unknown".** £1.94 billion, water "Unknown", no gap analysis, transport priced from a screenshot.

Fails: plan-wide context.
Source: Infrastructure Delivery Plan [30], Table 13-3, PDF page 176; Rough Order of Cost Estimate [39].
Examination: MOD (effective). **Five-year supply:** N/A.

F157. **An allocated site the flood study says should not go forward.** One allocated site the SFRA says "should not be taken forward"; logistics misclassified as water compatible.

Fails: plan-wide context.
Source: Level 2 Strategic Flood Risk Assessment [34].
Examination: SITE OUT (NS21); MOD. **Five-year supply:** N/A.

F158. **Both new towns without a sewer.** Both new towns without a sewer; the only capacity test, for a different distribution, put both treatment works within a few hundred homes of their limit under the highest option; Tilbury's inlet overflow already spills 64 times a year for lack of "Hydraulic capacity" (F12).

Fails: plan-wide context.
Source: Water Cycle Study Scoping Report [43], paragraph 6.1.3, PDF page 27, and Table 6-1; Environment Agency storm overflow returns [115].
Examination: MOD; SITE OUT risk. **Five-year supply:** N/A.

F159. **Traveller pitches: 43 against 140.** 43 deliverable Traveller pitches against a five-year need of 140; no site named.

Fails: plan-wide context.
Source: Gypsy and Traveller Accommodation Assessment (March 2026, updated July 2026) [40].
Examination: MOD. **Five-year supply:** APPEAL BOROUGH (Traveller applications in the Green Belt).

F160. The Council's own land in SS11. The Council's own land in SS11 on terms that may defeat its policy, undeclared.

Fails: plan-wide context.
Source: Regulation 19 Local Plan [1], Policy SS11.
Examination: MOD. **Five-year supply:** N/A.

F161. No Lower Thames Crossing sensitivity test. No Lower Thames Crossing sensitivity test, which National Highways asked for; Cross Keys mitigation "likely not feasible".

Fails: plan-wide context.
Source: Local Plan Transport Assessment [32]; Thurrock Strategic Transport Model Forecasting Report [33].
Examination: MOD. **Five-year supply:** N/A.

F162. One year's supply; 27 per cent delivery test. One year's supply on adoption; 27 per cent delivery test.

Fails: plan-wide context.
Source: Regulation 19 Local Plan [1], Appendix 2, PDF page 419; Housing Delivery Test measurement.
Examination: MOD. **Five-year supply:** APPEAL BOROUGH from adoption.

The independent analyses made for this representation: methods and full results (Appendices G to Q)

The main body of this representation states each result in plain English and refers to the appendix below that sets out how it was obtained. Each appendix gives the question, the data, the method, the full results, what they show, and their limits, with the files that reproduce them. Every dataset is public or licensed and named. Every script is held in the evidence repository, which is available to the Inspector on request, and can be rerun from it. Confidence is stated on this representation's five-point scale, from C1 (weak) to C5 (verified against the source).

Appendix G. Housing need and the jobs forecast, against the borough's own record

The question. The plan's requirement of 28,880 homes, 7,400 above the Government's standard method minimum of 21,480, rests on one jobs scenario. Does the borough's own record support that scenario, and the conversion of its jobs into local homes?

How the requirement was built. The Economic Development Needs Assessment [42] (EDNA, August 2025) takes the independent Oxford Economics (OE) baseline of 729 jobs a year and raises it to a "higher growth" scenario of 1,558 jobs a year (31,166 over twenty years) by lifting, sector by sector, ports and logistics from 0.9 to 2.25 per cent a year, construction from 1.5 to 2 per cent and manufacturing from minus 1.7 to plus 5 per cent, on the basis of "the Thames Gateway Freeport Business Case and recent discussions with Freeport landholders" (paragraphs 4.30 to 4.34, Table 4.9, PDF page 52). The Housing Needs Assessment [41] (HNA, June 2025) converts the 31,166 jobs into 1,444 homes a year on the assumption that the jobs are filled by people living in the borough, holding the 2021 commuting ratio constant (paragraph 4.19, PDF page 35), a census year the HNA itself calls "skewed" by the pandemic (PDF page 30). The HNA states that a requirement above the standard method "would not be necessary" if the Council targeted only baseline job growth, and that 1,444 homes a year "could be needed ... if it chooses to target such levels of job creation" (paragraphs 4.9 and 4.20, PDF page 31).

Data. Office for National Statistics, Business Register and Employment Survey (BRES) [110], Nomis dataset NM_189_1, Thurrock (E06000034), employment (employees plus working owners) by two-digit industry, 2015 to 2024, retrieved 23 September 2026. Government Live Table 122 [112], net additional dwellings, Thurrock. DP World news release of 12 March 2025 on London Gateway Logistics Park [111]. BRES 2024 for the small statistical area containing the port (middle layer super output area E02003296, "Corringham North and London Gateway"). HM Treasury, Autumn Statement 2023 [123] (Freeport tax reliefs).

Method. Compound annual growth rates from BRES for the whole economy and for the sectors the EDNA adjusts, compared with the OE and EDNA rates. Jobs added over 2015 to 2024 set against net additional dwellings over the matching nine years (2015-16 to 2023-24). Floorspace per job at London Gateway from its owner's own figures and from the Council's monitoring (EDNA paragraph 4.48), compared with the 73.5 square metres per job the EDNA applies to warehousing.

Results.

Table G1. *Thurrock employment (BRES, rounded as published)*

	2015	2019	2020	2024	Change 2015 to 2024
All sectors	65,000	68,000	75,000	80,000	+15,000 (+23%)
Transport and storage (divisions 49 to 53)	8,675	11,020	16,630	19,385	+10,710
of which warehousing and support (52)	5,000	6,000	11,000	14,000	+9,000
Construction (41 to 43)	3,500	5,400	5,800	7,000	+3,500
Manufacturing (10 to 33)	2,645	3,335	2,915	3,070	+425
Retail (47)	13,000	11,000	10,000	9,000	minus 4,000

Table G2. *Growth rates, per cent a year (compound)*

	Record 2015 to 2024	Record 2020 to 2024	OE baseline 2024 to 2044	EDNA higher growth
All sectors	2.3	1.6	about 0.8	1.55
Transport and storage	9.3	3.9	0.9	2.25
Construction	8.0	4.8	1.5	2.0
Manufacturing	1.7 (minus 1.6 since 2019)	1.3	minus 1.7	5.0

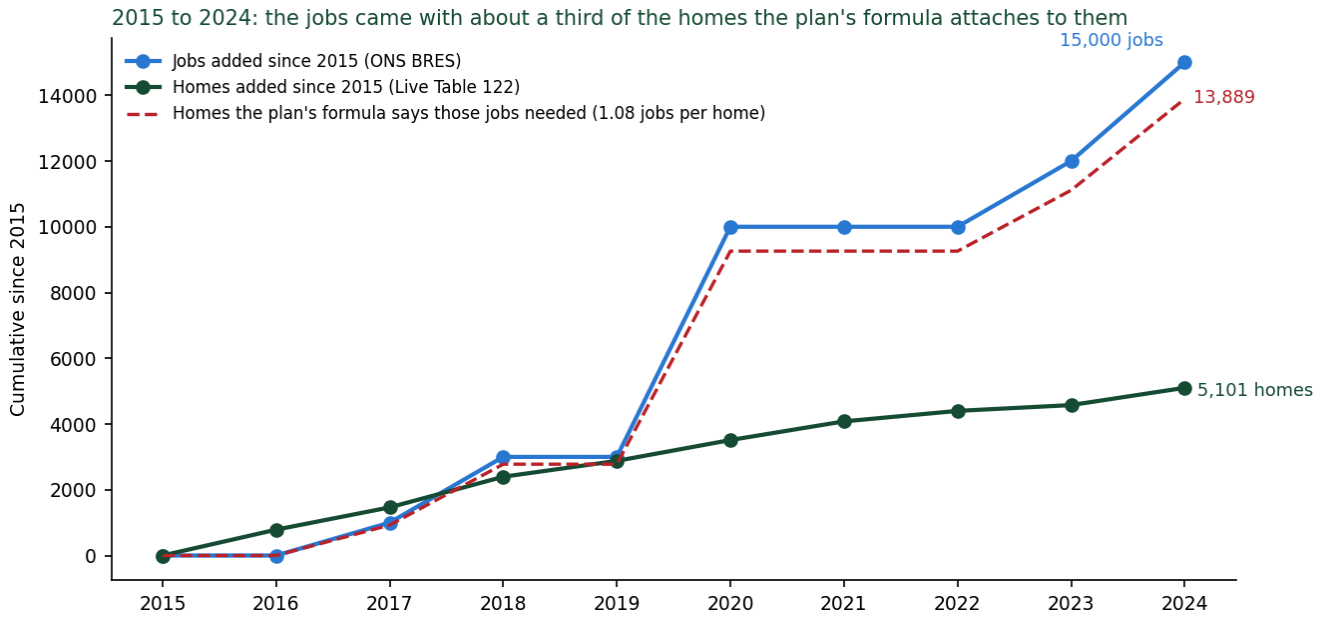


***Figure G1. Jobs and homes added in Thurrock since 2015**, against the homes the plan's formula (1.08 jobs per home) attaches to those jobs. Sources: ONS BRES [110], Live Table 122 [112], HNA [41].*

What it shows.

1. **The transport and storage uplift is not without precedent, and this representation does not say it is.** The sector grew at 9.3 per cent a year over the decade, so the EDNA is right that 0.9 per cent is "well below historic growth levels".

2. **The growth is one division and one step.** Of the 15,000 jobs added, 9,000 are in warehousing and support activities, and 5,000 of those arrived in one year, 2019 to 2020. Retail lost 4,000.

3. **Manufacturing at 5 per cent a year has no precedent.** The record is 1.7 per cent a year over the decade, all of it before 2019, and decline since.

4. **The jobs came without the homes.** Between 2015 and 2024 the borough added about 15,000 jobs, about 1,670 a year, more than the 1,558 a year the higher growth scenario assumes.

Over the same years it added 5,101 net additional dwellings, about 567 a year: about 2.9 jobs for every new home, against the HNA's 1.08.

On the HNA's own conversion, those jobs needed about 13,900 homes. The borough built about 37 per cent of that. The difference is people who travel in to work, whom the HNA does not model.

5. **Illustration only.** Applied to the HNA's 31,166 jobs, the recorded ratio implies a housing response in the order of 10,600 homes over twenty years, not 28,880. This is not offered as a forecast. It shows that the uplift rests on a conversion the record does not support.

6. **The Freeport's job capacity is overstated about three times**. On DP World's own figures London Gateway Logistics Park has 4.0 million square feet (371,612 square metres) and 1,500 permanent jobs: one job per 248 square metres.

The Council's monitoring gives 328,578 square metres completed since 2013/14, 219 square metres per job. BRES records 1,750 warehousing jobs in the whole small area containing the port.

The EDNA applies 73.5 square metres per job, which would have predicted 4,500 to 5,000 jobs from the floorspace already built. The "over 20,000 jobs" Freeport capacity that supports the uplift (EDNA Table 4.9) rests on that ratio.

7. **The Freeport reliefs end before SS18 delivers.** Freeport tax reliefs expire on 30 September 2031 [123]. The trajectory counts SS18's first 600 homes in the five years 2029/30 to 2033/34, a band that runs more than two years past the reliefs' end, and the promoter says none will come in the first five years from adoption, to about 2033, so on its account none arrive before the reliefs end (Appendix 2, PDF page 419; Viability Assessment [29], 8.67).

8. **No neighbour's need is being met.** The plan nowhere states that any of its homes meet another authority's need, and the Council told Medway it expected to meet its own need within the borough. The only neighbour to welcome Lower Langdon, Southend-on-Sea, did so as a place for its own unmet need (Regulation 18 Consultation Statement [7]). No statement of common ground records any agreement.

Limits. BRES is a sample survey, rounded to the nearest 5 to 1,000 depending on size, and carries sampling error at division level. Growth rates are compared, not levels, because OE and BRES measure employment differently.

A single-year step in one division may reflect one large employer, a reclassification or a revision. No jobs are attributed to any employer. DP World's "permanent jobs" may exclude agency staff. BRES counts all jobs at the workplace and is if anything generous.

None of these limits reverses a finding. Confidence: C5 for the data and arithmetic. C4 for the interpretation.

Files. report/BRES-JOBS-RECORD-NOTE-2026-09-23.md, report/LONDON-GATEWAY-DENSITY-NOTE-2026-09-23.md, report/NEIGHBOURS-NEED-NOTE-2026-09-23.md, evidence/data/bres-thurrock-2015-2024-employment.json, evidence/data/london-gateway-density-2026-09-23.json, tools/figures_housing_jobs_2026_10_01.py.

Appendix H. The delivery record: the last 24 years, the last ten, and every council in England

The question. Has Thurrock, or any comparable council, ever built at the rate the plan requires: 1,444 net additional homes a year for twenty years?

Data. Government Live Table 122 [112], net additional dwellings by local authority district, 2001-02 to 2024-25 (2024-25 provisional; published 20 November 2025; SHA-256 35667e86…). Live Table 125 [118], dwelling stock by district, 2001 to 2025 (unrounded). Both read in full on 23 September 2026.

Method. Thurrock's annual series, its best five-year and ten-year averages, and its last ten years. For every council in England, the best average over any ten-year and twenty-year run, in absolute terms and relative to its dwelling stock at the start of the run. 1,444 homes a year is 2.04 per cent of Thurrock's 70,871 dwellings (2025). A run counts only if every year has data.

Results.

Table H1. *Thurrock's record (Live Table 122)*

	Net additional dwellings
24 years, 2001-02 to 2024-25	11,465 (478 a year)
Last ten years, 2015-16 to 2024-25	**5,414 (541 a year)**
Best ten-year average	567 a year (2011-12 to 2020-21)
Best single year	1,080 (2004-05), the only year above 1,000
Last five years, 2020-21 to 2024-25	1,902 (380 a year)
Dwelling stock	59,405 (2001) to 70,871 (2025), +19 per cent in 24 years

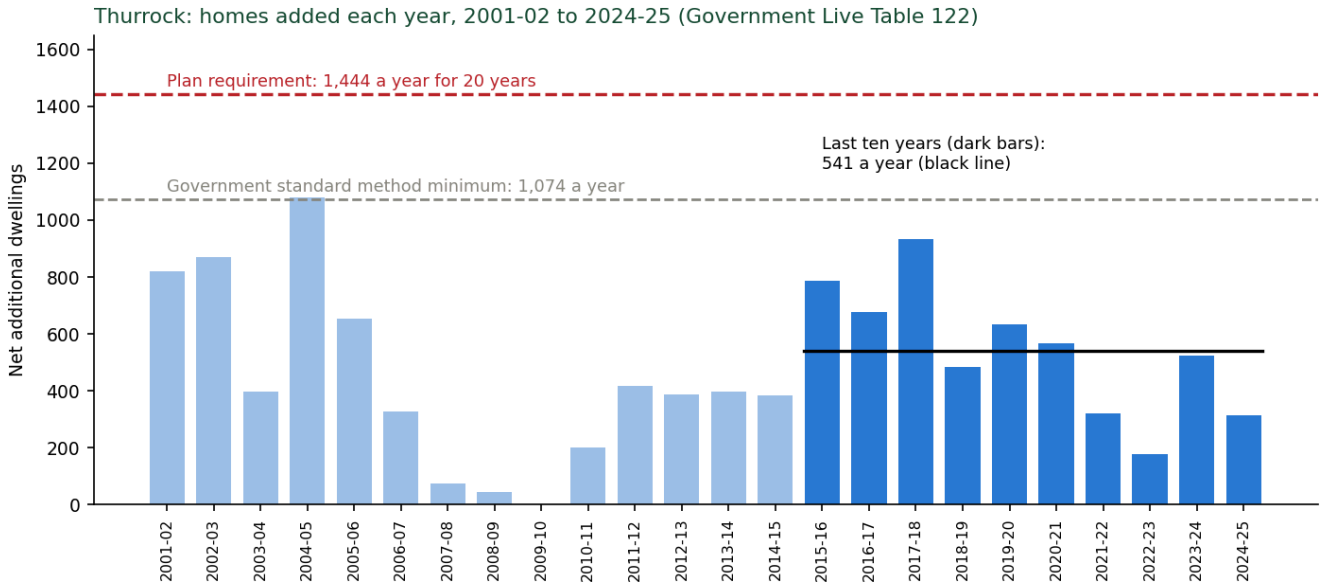


Figure H1. Thurrock's net additional dwellings each year since 2001-02, *with the last ten years shaded dark, against the plan's requirement and the Government's standard method minimum. Source: Live Table 122 [112].*

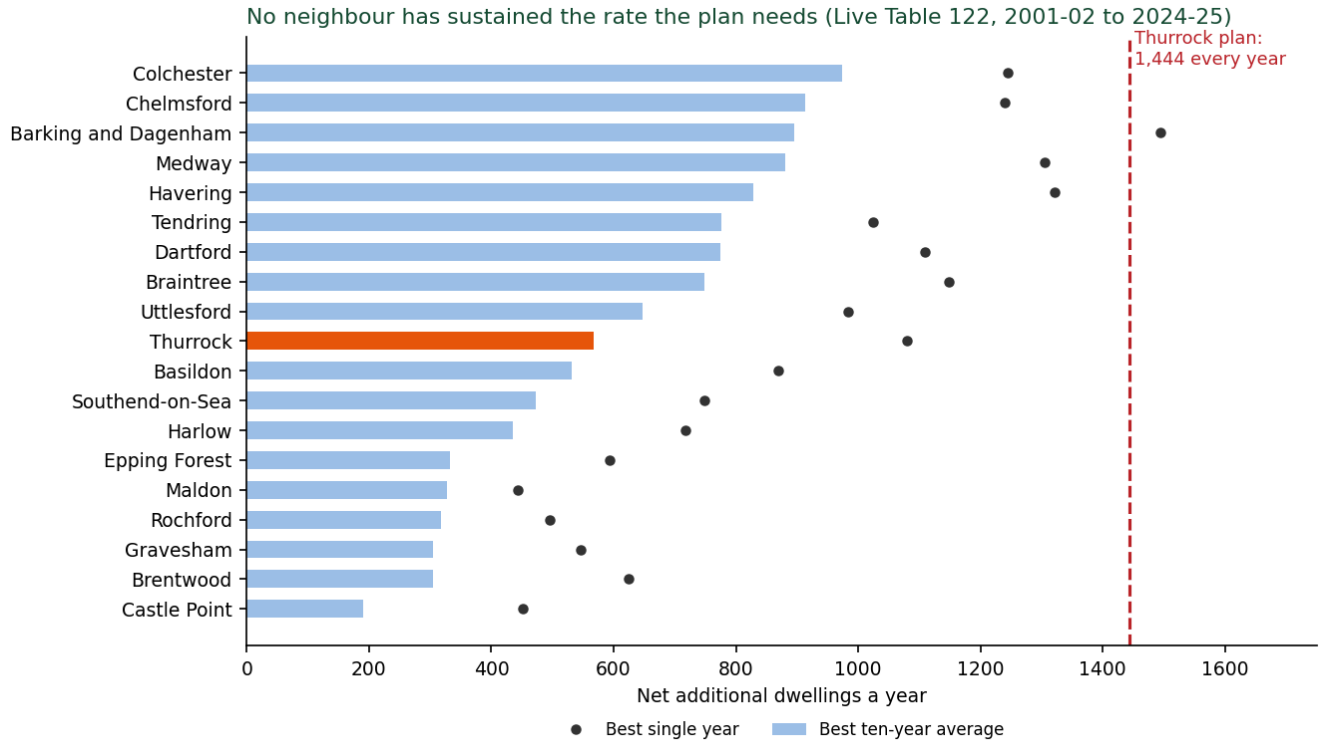


Figure H2. Best ten-year average and best single year for every council in South Essex *and the Thames Gateway, against the 1,444 a year the plan requires of Thurrock every year for twenty years. Source: Live Table 122 [112].*

What it shows.

1. **Against the last ten years.** The requirement is 2.7 times what Thurrock actually built over the last ten years (541 a year), 2.5 times its best decade, and 1.3 times its best single year since 2001, every year for twenty years.

2. **Against the borough's size.** 28,880 homes in twenty years would take the stock from about 70,900 to about 99,700, +41 per cent, twice the proportional growth of the last 24 years.

3**. Against every council in England**. Relative to size, 2.04 per cent a year sustained for twenty years has been achieved by 4 of 298 councils with a complete series. Discounting the City of London (5,500 dwellings) and East Lindsey (a statistical artefact) leaves Tower Hamlets and South Derbyshire. Over ten years it is 11 of 326.

4**. Against the neighbours.** No council in Essex, and none of Medway, Dartford, Gravesham or Havering, has ever built 1,444 homes in a single year. Barking and Dagenham did so once (1,495 in 2024-25). The best ten-year averages in the area are Colchester 974 and Chelmsford 914. Basildon's is 531.

5. **What it means for SS18.** The Integrated Impact Assessment [8] says the site came back "because of the increased housing requirement being tested" (paragraph 2.61, PDF page 51). The record gives no reason to think that requirement is deliverable. The standard method minimum of 21,480 is already 2.0 times the last decade's rate. Without SS18 the plan still supplies 22,006 homes in its period, above the minimum (Appendix N).

Limits. Net additional dwellings include conversions and changes of use, net of demolitions. 2024-25 is provisional and Thurrock submitted no return for it, so its figure is imputed. The relative test uses stock at the start of each run, which is conservative for Thurrock (its 2025 stock is its largest). Confidence: C5.

Files. report/HOUSEBUILDING-RECORD-NATIONAL-COMPARISON-NOTE-2026-09-23.md, evidence/data/housebuilding-record-lt122-lt125-2026-09-23.json, evidence/data/housing-jobs-figures-2026-10-01.json, tools/figures_housing_jobs_2026_10_01.py.

Appendix I. Capacity: how many homes fit, on the Council's own figures

The question. How many homes can SS18 hold once only the land the Council's own policies require is set aside, counting nothing the Council's consultants have already left out?

The Council's figures. The Housing Land Availability Assessment [15] gives Lower Langdon (site 60940) a capacity of 3,378 homes on 112.61 hectares at 30 dwellings a hectare (HLAA Appendix 4, PDF page 37). The consultants' best practice for Corringham Park Farm is 463 (Site Specific Assessment [14], Table 5-5, PDF page 25). The 1,000 is the Council's "allocation vision", which the consultants say "falls below best-practice standards". Together: 3,841 homes, 1,159 below the policy's 5,000. The consultants' own 4,041 for Lower Langdon depends on one sub-area (LL-01C, 38.2 hectares net) at 50 to 60 dwellings a hectare, the density for extending an existing town, on a stand-alone Green Belt site.

What the consultants already left out. The capacity study's gross developable area excludes Flood Zone 2 with a 10-metre setback, Flood Zone 3 with 15 metres, main rivers with 8 metres, and all woodland and protected habitat with 15 metres (sections 5.2.2 to 5.2.4 and Table 5-1, PDF page 22). Applying exactly that rule to the Environment Agency's data [91] and the Council's parcel boundaries leaves 161.2 hectares at Lower Langdon, against the consultants' 159.78 to 160.40 hectares, which confirms the reconstruction. At Corringham Park Farm it leaves 28.8 hectares, against their 25.74. The climate change flood extent adds only about 0.2 hectares beyond what the study left out. An earlier version of this analysis (23 September) deducted the flood extent again. It double counted about 36 hectares and is withdrawn.

What else must be set aside, and why.

• **Drainage.** The study allows 4 per cent of the developable land for drainage, about 6.4 hectares at Lower Langdon, with no calculation. Tested against the national standard that the Council's own drainage policy, DMP29, names (Appendix O, Table O5), the drainage needs 19 to 25 hectares at Lower Langdon and 3 to 4 at Corringham Park Farm with ponds at the Essex safe depth of 1.2 metres, including treatment ponds and channels (13 to 19 and 2 to 3 with 2-metre ponds). This appendix uses 20 hectares at Lower Langdon and 4.6

at Corringham Park Farm, 24.6 in all, near the bottom of the 22 to 30 hectares the standard needs with 1.2-metre ponds. Corringham Park Farm's figure is slightly above its own range and Lower Langdon's near the bottom of its.

• **Fell-me-down Shaw.** Natural England decided on 25 September 2026, confirmed with a map of the whole wood on 1 October 2026, that it is ancient woodland (reference 485493). The study applied 15 metres to all woodland. A 50-metre buffer is used here as a sensitivity, not a claimed standard. Only the ring from 15 to 50 metres is counted.

• **Langdon Ridge SSSI.** A 50-metre buffer, along the whole northern edge of Lower Langdon's northern part (which local survey places on the SSSI boundary; Natural England's mapped boundary lies up to about 90 metres from it in the middle section) and along Corringham Park Farm's northern edge.

• **Lodge Hall Shaw.** A 50-metre buffer, if it is confirmed as ancient woodland.

Method. Each buffer is measured only on the developable land left by the consultants' own rule, and each is net of the one before, so nothing is counted twice.

Homes are taken as proportional to housing plot land, using the consultants' own land shares: for Lower Langdon, 3,378 homes on 160.40 hectares with plots at 56 per cent and drainage at 4 per cent. For Corringham Park Farm, 463 on 25.74 hectares with plots at 60 per cent. Land a buffer takes comes off the developable area. Drainage need above 4 per cent comes out of the housing plots. Script: tools/stepdown_2026_10_01.py.

Results.

Table I1. *Land each step takes, measured on the land the Council's scheme can build on (hectares)*

	Lower Langdon	Corringham Park Farm
Land the scheme can build on (consultants' rule)	161.2	28.8
Drainage land under the national standard (in total; Appendix O)	20.0	4.6
Fell-me-down Shaw, ring from 15 to 50 m	6.1	0
SSSI, 50 m	3.0	5.5

	Lower Langdon	Corringham Park Farm
Lodge Hall Shaw, ring from 15 to 50 m	2.2	0
A13 noise bund and fence, 22 m strip along the road edge (Appendix Q)	3.5	2.5
SANG to Natural England's standard, beyond the open space already counted (last step)	25.1	2.1

Table I2. *Homes at each step*

Step	Lower Langdon	Corringham Park Farm	SS18	Short of 5,000
Policy SS18	4,000	1,000	5,000	
Council's own capacity	3,378	463	3,841	1,159
Plus the drainage land its rule needs	2,867	356	3,223	1,777
Plus Fell-me-down Shaw buffer	2,729	356	3,085	1,915
Plus 50 m SSSI buffer	2,661	250	2,911	2,089
Plus Lodge Hall Shaw buffer	2,611	250	2,861	2,139
Plus A13 noise bund and fence	2,532	202	2,734	2,266
Plus SANG to Natural England's standard	1,964	162	2,126	2,874

SANG to Natural England's standard. Natural England's advice on housing near Langdon Ridge applies 8 hectares of SANG per 1,000 new residents, which it calls "a robust standard" [138]. At 2.4 people a home (the IDP's own occupancy) that is 1.92 hectares per 100 homes.

The whole of the capacity study's 10 per cent public open space is counted towards it, which favours the Council, because Natural England does not normally accept amenity open space as SANG. Only the land needed beyond that is taken, from the developable land, split between the parcels in proportion to their homes.

Because the requirement falls as homes are lost, it is solved by iteration. Table I3 shows the result at each step if SANG is set aside instead of the noise bund.

Table I3. *Homes at each step with SANG to Natural England's standard (no noise bund)*

Step	Homes without SANG	SANG needed (ha)	Counted from open space (ha)	Extra land (ha)	Homes with SANG
Council's own capacity	3,841	56.0	14.4	41.6	2,919
Plus the drainage land its rule needs	3,223	48.0	15.3	32.6	2,499
Plus Fell-me-down Shaw buffer	3,085	46.0	14.9	31.1	2,396
Plus 50 m SSSI buffer	2,911	43.4	14.2	29.2	2,261
Plus Lodge Hall Shaw buffer	2,861	42.7	14.1	28.6	2,223
Plus A13 noise bund and fence	2,734	40.8	13.6	27.2	2,126

The maps and charts are Figures 1 to 3 in section 4.4.

The policy's own requirements still have to be placed. None of these figures yet finds room for what Policy SS18 itself requires (PDF pages 291 to 293): about 20 hectares of employment land against a non-residential allowance of 6.4 hectares, two primary schools and an all-through school, about 32 hectares of open space and 1.2 hectares of allotments, about 14 hectares more than the land budget provides, 20 serviced Traveller pitches, and a SANG (Suitable Alternative Natural Greenspace) with no area at all, which Tables I2 and I3 place only as a sensitivity.

Surface water on the land the scheme would build on. On the 161.2 hectares at Lower Langdon, the Environment Agency's surface water map (September 2025) shows 2.7 hectares at High risk (more often than 1 in 30 a year), 1.4 at Medium and 14.9 at Low. On Corringham Park Farm's 28.8 hectares, 2.1, 0.8 and 3.6. In this representation's 1 in 100 year two-dimensional model of today's fields, water stands more than 10 centimetres deep on

10.0 hectares of that land at Lower Langdon and 3.7 at Corringham Park Farm (evidence/data/flood-on-gda-2026-10-01.json). None of this land is excluded by the capacity study, because its rule covers river flood zones only.

Limits. Homes are proportional estimates, not layouts (C3 to C4).

Woodland outlines are OpenStreetMap polygons, slightly wider than the register's areas, so the woodland rings are upper estimates. The 50-metre buffers are sensitivities. The right distance is for the assessment the Council has not done.

Hawksbury Grasslands, nine hectares of priority grassland in Corringham Park Farm, is not deducted (its boundary is not digitised). The drainage land figures come from a screening model (Appendix O). The noise bund strip assumes a 6-metre bund with a steep reinforced road face, a 2-metre crest and a 1 in 3 back slope along the parcel edges within 60 metres of the nearer A13 carriageway. It is not in the plan and is shown because the Council's own 2023 document said the A13 would require noise measures (Appendix Q). The SANG step applies Natural England's standard as stated and assumes a SANG on this land would work. Whether open land on the flat below can draw dog walkers away from a woodland SSSI at the end of the gardens is a separate question (section 4.6). On Figure 2 it is drawn as a band grown from each parcel's SSSI-facing edge only to show the area needed. It is compensatory greenspace, not an SSSI buffer, its real position would be for a design, and it is drawn clear of the drainage land, since drainage basins and open water do not count towards SANG capacity (Natural England's SANG guidelines, August 2021).

Files. tools/fig_v1_land_steps.py, tools/stepdown_2026_10_01.py, evidence/data/fig-v1-land-steps-2026-10-01.json, evidence/data/ss18-stepdown-2026-10-01.json, tools/flood_on_gda_2026_10_01.py, report/LAND-BUDGET-NOTE-2026-09-27.md (with its correction header), report/CAPACITY-RECHECK-NOTE-2026-09-23.md (SSSI boundary lengths and buffer areas; its flood deduction is withdrawn).

Appendix J. Viability and the infrastructure bill

The question. Can the new town pay for itself and still provide the affordable housing the plan requires: 35 per cent on SS18 (Policy DMP12, Table 5, PDF page 317), and 50 per cent on land released from the Green Belt under the Golden Rules?

What the Council tested. The Viability Assessment [29] (AspinallVerdi, June 2026) prints one appraisal for each parcel.

Lower Langdon: 4,250 homes, 34 per cent affordable, infrastructure at £51,325 a home, which is the IDP total of £256,596,000 divided by 5,000 (paragraph 8.64), residual land value £71,559,946 against an existing use value (EUV) of £5,344,773 (PDF pages 1142 to 1148).

Corringham Park Farm: 1,000 homes, 39 per cent, infrastructure at a generic £30,000 a home "in the absence of any further site-specific information" (paragraph 8.72), residual £9,931,510 against an EUV of £726,227 (PDF pages 1205 to 1211). Together: 5,250 homes and £248.1 million of infrastructure.

The infrastructure bill. The IDP's own summary prices Lower Langdon's infrastructure at £256,596,000: transport £172,299,000, education £59,397,000, community £12,074,000, green and blue infrastructure £9,688,000, health £3,138,000 (Tables 13-3 and 13-4). Policy SS18 says the infrastructure for both parcels will be delivered "in line with the Infrastructure Delivery Plan" (PDF page 294).

At the policy's 5,000 homes the appraisals carry £235.3 million (4,000 at £51,325 plus 1,000 at £30,000), £21.3 million less than the Council's own total.

Over the 4,000 homes the IDP says it is costed for ("the proposed new 4,000 homes at Lower Langdon", PDF page 165) the total is £64,149 a home. The transport costs rest on the Rough Order of Cost Estimate [39], built from "limited" design with "no engineering details or proposals" and a "Screenshot of Figure 6-6 provided … via Teams meeting". They carry a 20 per cent contingency and no optimism bias, although the IDP itself says "relevant adjustments to project cost estimates should be made".

The One Tree Hill bridge is £15,000,000 in the cost estimate and £22,500,000 in the IDP, exactly 1.5 times, with no reconciliation. Neither figure includes water (the IDP's water cost is "Unknown"), wastewater for a site with no sewer, drainage construction, rail, the SANG or land.

Method. Both appraisals were rebuilt line by line from the printed inputs: unit mix, floor areas, sale values, affordable values as a share of market value, build costs, garages, external works at 15 per cent, policy costs, contingency at 5 per cent, fees at 8 per cent, the Building Safety Levy, Section 106 at £18,700 a home, sales and legal costs, profit at 17.5 per cent on market sales and 6 per cent on affordable, and the land deductions (stamp duty at non-residential rates, acquisition fees at 1.5 per cent, one year's land interest at 7.5 per cent).

The rebuild reproduces each printed sales value, total cost and residual land value to the pound.

Development finance comes from a cashflow the Council did not publish and is held at the printed share of pre-finance costs (2.79 and 6.37 per cent). Against the Council's own sensitivity tables (PDF pages 1147 and 1210) the rebuild is within £0.15 million for Lower Langdon between 20 and 35 per cent affordable housing and within £1.3 million for Corringham Park Farm. SS18 is then appraised as one scheme: both parcels at the same affordable housing percentage, the combined land value tested against the combined EUV (£6.07 million).

The land price the Council actually applied. Table 8.2 (PDF pages 168 to 170) says its maxima of 34 and 39 per cent are where land value equals ten times EUV.

The printed appraisals at those percentages leave 13.4 and 13.7 times. Both maxima are reproduced exactly by one threshold of about 13 times (Lower Langdon passes at 34 per cent at 13.4 times and fails at 35 at 12.5; Corringham Park Farm passes at 39 at 13.7 and fails at 40 at 12.3). The "five times" column behaves the same way at about 6.8 times.

On the stated ten times, the Council's own appraisals would allow about 38 and 41 per cent. Its minus £9,802,648 for Lower Langdon at 50 per cent is not reproduced by the appendix's own sensitivity table either (about minus £4.5 million).

The main test below is the one that reproduces the Council's published results. The stated ten times is a sensitivity. (Figure 4, section 5.2.)

What is corrected. Two inputs only.
Infrastructure: the IDP's own £256.6 million at 5,000 homes. Where fewer homes fit, transport (£172.3 million) is held fixed and the rest falls in proportion to the homes (£16,859 a home), which favours the Council. Homes: the policy's 5,000, then the Council's own capacity and the land its own policies require (Appendix I).

Each parcel keeps its own sale values. Nothing the Council has not itself priced is added, with two exceptions shown separately in the last two rows. First, the A13 noise bund and fence the plan does not provide for (Appendix Q), at £2.7 million to £6.5 million (about 4.1 kilometres of acoustic fence at £300 to £500 a metre installed and about 296,000 cubic metres of earthworks at an assumed £5 to £15 a cubic metre), with the land it takes removed as in Appendix I. Second, SANG to Natural England's standard (Appendix I, Table I3), at about £291,000 to £381,000 for each hectare of extra SANG: capital works at the IDP's own rate for natural and semi-natural open space (£181,195 a hectare: 17.28 hectares for £3,131,038, IDP Schedule Part 2 [31]) plus an endowment for 80 years' management of £110,000 to £200,000 a hectare. The endowment range comes from East Devon District Council's 10-hectare Clyst Meadows SANG: £2 million approved in May 2024, revised to £1.1 million on independent financial advice in December 2025. The site works there cost £1.63 million, about £163,000 a hectare, close to the IDP rate [140]. The land for the SANG is not priced. It is paid for in the homes it displaces.

Results.

Table J1. *SS18 as one scheme*

Case	Homes	Infrastructure	Most affordable housing, Council's applied test	at the stated ten times	Land value at 35%
Council's appraisals as printed	4,250 + 1,000	£248.1m	35%	38%	£80.9m
Policy homes, Council's appraisal rates	4,000 + 1,000	£235.3m	34%	38%	£76.8m
Policy homes, Council's own IDP total	4,000 + 1,000	£256.6m	30%	33%	£53.4m
Council's own capacity	3,378 + 463	£237.1m	17%	21%	£7.2m
Plus drainage land the Council's rule needs	2,867 + 356	£226.6m	5%	11%	minus £23.4m
Plus Fell-me-down Shaw buffer	2,729 + 356	£224.3m	2%	7%	minus £31.6m
Plus 50 m SSSI buffer	2,661 + 250	£221.4m	none	4%	minus £38.8m
Plus Lodge Hall Shaw buffer	2,611 + 250	£220.5m	none	2%	minus £41.8m
Plus A13 noise bund and fence (£2.7m to £6.5m)	2,532 + 202	£221.1m to £224.9m	none	none	minus £51.1m to minus £55.5m
Plus SANG to Natural England's standard (bund and SANG, £10.6m to £16.9m)	1,964 + 162	£218.8m to £225.0m	none	none	minus £95.1m to minus £102.4m

The charts are Figures 4 to 7 in section 5.2.

What it shows.

1. On its own appraisals and its own applied test, SS18 supports 34 per cent affordable housing, below the plan's 35.

2. With the Council's own infrastructure total, 30 per cent. On the Council's own capacity, 17 per cent.

3. Once the land the Council's own drainage, woodland and SSSI policies require is set aside: 5 per cent, then 2, then none. With a 50-metre SSSI buffer the scheme cannot pay the Council's own land price even with no affordable housing.

4. The 50 per cent the Golden Rules expect on released Green Belt is out of reach in every case, including the Council's own.

5. The Council's published summary does not match its own appraisals, and the Council appraised 5,250 homes for a 5,000-home allocation.

6. Mitigating the A13's noise with a bund and fence, which the plan does not provide for, leaves 2,734 homes, the land £51 million to £56 million short at the plan's 35 per cent, and no affordable housing viable even at the stated ten times. Added at each step instead (Figure 6), it lowers every result: 17 per cent to 14 at the Council's own capacity, 5 to 2 with the drainage land, and none from the Fell-me-down Shaw step onward.

7. Protecting the SSSI to Natural England's standard as well leaves 2,126 homes and the land £95 million to £102 million short at the plan's 35 per cent. No affordable housing is viable even at five times existing use value. With SANG alone, at the Council's own capacity and with no other constraint, 2,919 homes and no affordable housing on the applied or the stated test: the land is £56 million to £60 million short at 35 per cent (Figures 6 and 7).

What the Council's bill leaves out. The £256.6 million is the IDP's "known" cost. The items below are absent from it, or carried with no figure. Where the public record allows an estimate, one is given at 2026 prices with its basis and confidence. Where it does not, the item is listed as unpriced, because an unpriced item is not a zero. The full working is in report/OMITTED-COSTS-NOTE-2026-10-07.md.

Table J2. The items the Council's £256.6 million infrastructure bill leaves out, with this representation's estimates.

Item	In the Council's bill	Estimate	Basis and confidence
Surface water drainage to the national standard Policy DMP29 names	No cost; 6.4 ha of land	£1.6m to £14.8m open SuDS; £9.3m to £40.4m if a quarter of the storage goes underground	Environment Agency SuDS cost evidence (2015 rates, inflated); 177,000 m3 (Appendix O); C4
Drainage maintenance	Nothing; no owner or funder named	£86,000 to £528,000 a year; commuted sum £1.3m to £15.8m if adopted	Same source; C4
A13 noise bund and fence, 4.1 km	Nothing; no noise assessment	£2.7m to £6.5m plus 6.0 ha of land	Appendix Q; C4
SANG to Natural England's standard	Listed, no area, no cost	£7.9m to £10.4m plus 27.2 ha of land	Natural England [138]; Clyst Meadows costs [140]; C4
Police, fire and ambulance contributions	"n/a" for Lower Langdon; sought borough-wide per dwelling by each service	£6.6m at 5,000 homes (£622, £350 and £350 a dwelling on the IDP's own figures)	IDP chapter 10; C3
RAMS tariff indexation	£122.30 a dwelling at 2019 base; the IDP's own current rate is £159.66	£0.16m understated	IDP; C3
Foul sewerage from a site with "no existing sewer network"	Nothing	Unpriced: no route, works or capacity identified	Water Cycle Study [43]; Appendix K
Water supply	"Unknown"	Unpriced	IDP Table 13-6; Appendix K

Item	In the Council's bill	Estimate	Basis and confidence
Two new bus services	Listed, no figure; "will require central government funding", "not yet fully committed"	Unpriced	IDP 4.3.3; Transport Assessment
Healthcare premises	£3.1m for 686 m2; the NHS "is not funded to act as a property developer"	Unpriced beyond the contribution: a building, not a contribution, falls on the development	IDP chapter 9
Land acquisition and compensation, utility diversions, construction inflation	Nothing; the cost estimate excludes "Tender and Construction inflation"	Unpriced	Rough Order of Cost Estimate [39]
Optimism bias on transport	None applied; the IDP says Green Book adjustments "should be made"	Unpriced here	IDP sections 1.5 and 13

Quantified: £20 million to £80 million, 8 to 31 per cent on top of £256.6 million, before the unpriced lines. Per home at 5,000: £4,100 to £16,000 on top of the £51,325 the viability study used. At the 2,126 homes that fit once the Council's own constraints are drawn, the Council's own £256.6 million is already £120,700 a home. The drainage, maintenance and emergency services lines are not yet in the viability model above. The bund and the SANG are, as separate labelled steps. Every line pushes the residual land value further below the Council's own minus £9.8 million.

Limits. Reproduction of the printed appraisals: exact (C5). Finance approximated and checked against the Council's tables. The applied threshold of about 13 times is inferred from the published maxima, which it reproduces exactly for both sites. The Council's reason is unpublished (C4). The fixed and proportional split of infrastructure favours the Council (C4). The reduced home numbers are proportional estimates (Appendix I; C3 to C4). Viability is put inside the effectiveness and exceptional circumstances arguments, not as a free-standing ground (section 8; [78]).

Files. report/VIABILITY-REBUILD-NOTE-2026-10-01.md, tools/viability_model.py, tools/viability_ss18_combined.py, evidence/data/viability-ss18-combined-2026-10-01.json, report/INFRASTRUCTURE-COST-CHECK-NOTE-2026-09-23.md, tools/figures_viability_2026_10_01.py.

Appendix K. Water supply, sewerage and the Tilbury works

The question. Is there a sewer, treatment capacity and water supply for SS18, and does the Habitats Regulations Assessment deal with the works that would treat its sewage?

Data. Water Cycle Study Scoping Report [43] (WCS, AECOM, March 2024), IDP [30], Essex & Suffolk Water (ESW) Water Resources Management Plan 2024, final (October 2024) [116], and its Statement of Response to the draft (September 2023) [117], Environment Agency permit register for Tilbury Water Recycling Centre (WRC) [114], Environment Agency Event Duration Monitoring (EDM) storm overflow returns 2021 to 2025 [115], HRA [11].

Results: sewerage and treatment.

• **No sewer.** "There is no existing sewer network in some locations to connect into including Fobbing, Langdon Hills, Lower Langdon and West Horndon, therefore new infrastructure would be required" (WCS 6.1.3, PDF page 27). The IDP's reassurance on connection costs applies only to sites "close to existing settlements, where wastewater infrastructure is already established" (page 75). The IDP's Lower Langdon schedule has no sewer, pumping or wastewater item.

• **The only capacity test was for a different plan**. The WCS tested three options. The highest put 4,000 homes at Lower Langdon (none at Corringham Park Farm) and 5,000 at West Horndon. Tilbury WRC's residual headroom under that option fell to 485 homes at today's water use of 150 litres a head a day, rising to 6,836 or 10,689 only if every new home uses 122 or 110 (Table 6-1). That is the option's result, not the plan's headroom. The detailed Water Cycle Study the scoping report said was needed has never been produced.

• **Scale.** At the IDP's 2.4 persons a dwelling SS18 houses about 12,000 people, about 44 per cent of the growth Anglian Water's Drainage and Wastewater Management Plan provides for in the whole Tilbury catchment to 2050 (153,000 to over 180,000; IDP page 75). The same plan rates the catchment "very significant" for pollution incidents and sewer collapses (WCS 5.4.1). ESW "noted concern over the ability of treatment works to meet the wastewater demands of new developments in Thurrock" (IDP page 76).

***Table K1**. Tilbury WRC inlet storm overflow (Environment Agency EDM returns [115])*

Year	Spills	Hours	Anglian Water's stated reason
2023 (April to December)	44	96	
2024	56	162	"High spill threshold not met"
2025	64	142	"Not asset maintenance - Hydraulic capacity"

• The spills rose each year while spills across England fell by about 35 per cent in 2025. Sixty-four is more than five times Anglian Water's 2025 average of 12.0 per overflow. Only 32 of its 1,438 monitored overflows spilled more. "Hydraulic capacity" means "insufficient capacity (conveyance or storage) in the sewer network to cope with the wastewater flow plus typical rainfall" (Environment Agency dataset guide). The 2025 return records "No improvement action in reporting period".

• The permit, varied on 10 December 2025, keeps the dry weather flow at 40,000 cubic metres a day, lower than the 42,514 permitted from 2010 to 2016, and sets no limit on total nitrogen or phosphorus [114]. The outfall is 2.1 km from the Thames Estuary and Marshes Ramsar site and 2.5 km from the Special Protection Area (SPA).

Results

The HRA's water-quality conclusion. The HRA screens in water quality for the Thames Estuary and Marshes SPA and Ramsar site and names the pathway, treated wastewater and "Overloading of the combined sewer network during storm events" (6.77 to 6.79, PDF pages 122 to 123). It then concludes no adverse effect "providing that the mitigation measures and improvements set out by Southern Water are followed" (PDF page 125), relying on Medway, Motney Hill, Canterbury, Sandwich and Gravesend measures in Kent (6.80 to 6.81, PDF pages 123 to 124). Thurrock's sewerage undertaker is Anglian Water (WCS 5.4.1, PDF page 23). In the HRA, "Anglian" occurs 0 times and Tilbury WRC is never named.

Water supply. ESW has a baseline supply deficit in its Essex zone of 35.51 Ml/d (megalitres a day) in 2029/30 and 43.87 in 2034/35, and neighbours with no surplus to share (WRMP24, PDF pages 28 to 29 and 124). Its final plan leaves a zone-wide surplus of 16.99 Ml/d, or 0.13 Ml/d without the new Linford works (PDF pages 174 to 175). The WCS reports that ESW planned for 19,460 homes in Thurrock over a twenty-year plan (6.2.2). The plan's in-period supply is 25,406, 5,946 more. SS18's 3,400 in-period homes are 57 per cent of that excess. At ESW's own ratio (15 Ml/d for 30,000 homes; IDP page 76) the excess homes

would use about 3.0 Ml/d, about 17 per cent of the zone's planned surplus. In 2023 the Council told ESW its growth figures were "very conservative" and its demand-reduction assumptions "overly optimistic" (Statement of Response, references 69 to 74, PDF pages 69 to 70). ESW kept them, and the IDP now relies on them.

What it shows. There is no sewer and none is costed. The only treatment test assessed a different plan. The works that would take SS18's sewage already overflows for lack of capacity, more each year. The HRA's water-quality conclusion rests on another water company's works in Kent. The plan exceeds what the water company planned to supply, with SS18 most of the excess. Confidence: C5 for the records. The water arithmetic is an order of magnitude (C4).

Limits. The Thurrock water allowance is the WCS's reading of the plan as it stood in March 2024. The final plan does not publish the local figure. Three years of overflow data is a short record, and the change in the recorded reason may partly reflect a change in the reporting threshold. Distances are straight-line. Anglian Water's reply of 12 October 2026 confirms that it has made no capacity check for the site or the sewers that would serve it (Appendix C).

Files. report/WATER-AND-SEWERAGE-NOTE-2026-09-23.md, report/TILBURY-PERMIT-AND-OVERFLOWS-NOTE-2026-09-23.md, evidence/data/tilbury-wrc-permit-and-edm-2026-09-23.json, evidence/text/esw-wrmp24-final-and-statement-of-response-EXTRACTS.md.

Appendix L. Seventy years of the Council's own decisions on this land

The question. How has the Council itself treated development on and around the allocation?

Data and method. Every application on the eight addresses within and around the allocation (Old Hill Avenue, South Avenue, Vange Park Road, One Tree Hill, Park Road, Hovels Farm, Arden Hall, North Hill), harvested from the Council's online planning register [122] on 3 September 2026: 425 applications, 1948 to 2026. Refusals were coded by primary reason where the decision notice is online.

Results. 168 refusals: 1 in the 1940s, 13 in the 1950s, 31 in the 1960s, 24 in the 1970s, 25 in the 1980s, 11 in the 1990s, 26 in the 2000s, 24 in the 2010s and 13 in the 2020s. Decision notices are online for 40. Of those, 20 were refused primarily on Green Belt grounds, 6 on plotland dwelling limits, 8 on lawfulness or permitted development, 1 on ecology, 4 are scanned notices not yet read and 1 is not applicable. The Green Belt refusals run continuously from 2012 to January 2026, seven months before Cabinet allocated the land: nine extensions or outbuildings, three caravans or mobile homes, three new dwellings, two commercial uses, and one each agricultural, replacement dwelling and equestrian. In the Council's own words: "would harm the openness of the Green Belt" (South Avenue, 2021 and 2022), "inappropriate development in the Green Belt which is by definition harmful" (Old Hill Avenue, 2020), "an unacceptable urbanising feature which is harmful to the openness and rural character of the Green Belt" (land adjacent One Tree Hill, 2012).

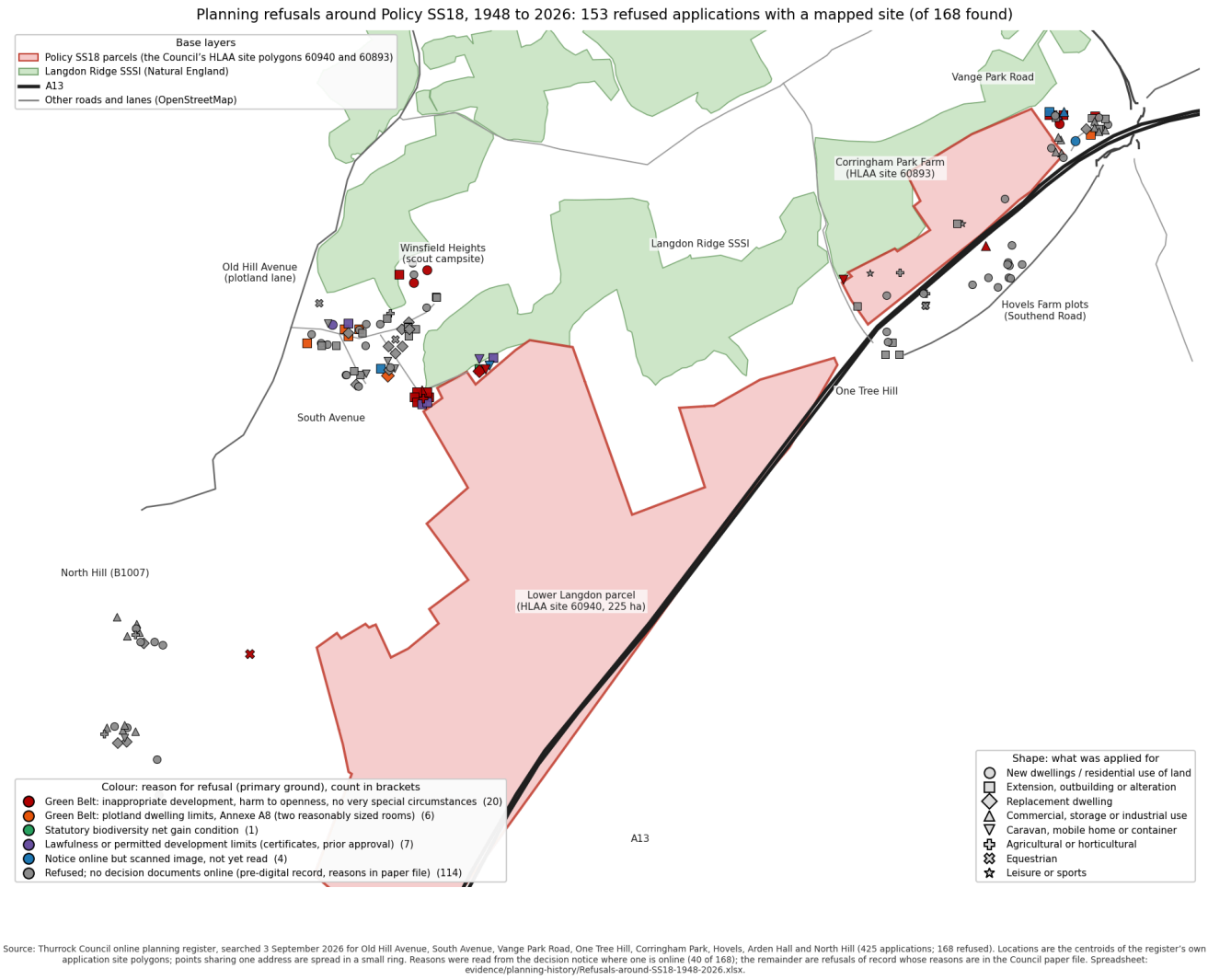


Figure L1. Planning refusals around Policy SS18, 1948 to 2026, coloured by primary reason where the notice is online. *Source: Thurrock online planning register [122], parcel outlines from the HLAA, SSSI from Natural England.*

What it shows. For seventy years the Council has refused extensions, outbuildings, mobile homes and single dwellings on and around this land because each would harm its openness. It has allocated the same land for 5,000 homes without recording why that harm no longer applies. Its own Green Belt consultant said in February 2026 that the land "performs strongly" and is "not recommended". Confidence: C5 for the record. 128 pre-digital refusals have no online notice. This does not affect the point, which rests on the 20 documented Green Belt refusals since 2012.

Files. report/PLANNING-HISTORY-NOTE-2026-09-23.md, evidence/planning-history/ (refusals-dataset.json, refusal-reasons-coded.json).

Appendix M. The site selection, re-scored on the Council's own consultants' findings

The question. The Site Selection Methodology [37] scored Green Belt, heritage, priority habitat, Critical Drainage Areas, landscape and Impact Risk Zones "for information" or not at all. What do the Council's own consultants' findings show when set side by side for every strategic allocation?

Data. Stage 2 Green Belt Assessment and appendices [12] [13] [44] [45] [46], Heritage Impact Assessment [36], Environment Agency data [91] checked against every allocation, Flood Risk Sequential Test [35], HLAA Appendices and Methodology [15] [125].

Results.

Table M1. *The nine strategic allocations against the Council's own consultants' findings*

Allocation	Homes	Green Belt finding (Arup)	Grey belt	Heritage	Flood Zone 3	Future flood extent	Main River
SS17 West Horndon	10,000	Not recommended	Yes	Major Adverse	25.7%	50.0%	6.82 km
SS18 Lower Langdon and Corringham Park Farm	**5,000**	**Not recommended; CS-01 "Strong", 5/5 for preventing towns merging**	**No**	**Moderate Adverse, "should be avoided"**	**10.7% (Parcel a)**	**16.8%**	**0.96 km**
SS14 North of South Ockendon	2,000	Not recommended	No	Major Adverse	0	0	0
SS13 South-east of South Ockendon	2,000	Not recommended (OK-09)	mixed	Major Adverse (part)	6.7%	9.3%	0.01 km
SS05 East of Chadwell St Mary	2,000	Not recommended (CH-03, CH-06)	mixed	Moderate Adverse	0	0	0

Allocation	Homes	Green Belt finding (Arup)	Grey belt	Heritage	Flood Zone 3	Future flood extent	Main River
SS04 West of East Tilbury	830	Not recommended	mixed	Moderate Adverse	6.4%	41.0%	0
SS12 West of Romford Road	450	Not recommended		Moderate Adverse	0	0	0
SS11 South of Aveley	600	Recommended	Yes	Major Adverse	0.1%	0.6%	0
SS08 North-east of Corringham	2,000	Recommended	Yes	not Major	1.1%	1.9%	0

The Green Belt release in proportion. The consultant assessed 145 sub-areas and recommended 88, covering 816 hectares, "7% of the total designated Green Belt land in Thurrock", for further consideration. On the consultant's sub-area descriptions the plan allocates about 848 hectares from the "Not recommended" list, more than the whole 816 the consultant said could be considered. SS18 is 250 of those hectares (CS-01 221.46, CS-11 21.18, CS-28 7.80), 2.1 per cent of the borough's Green Belt, the largest single block the consultant recommended against and the only one that is not grey belt. No reasons are recorded for any of the departures.

How the Council's own score treated the SSSI. The HLAA scored Lower Langdon 68.75: "Balance score reduced due to part of the site falling within Flood Zones 2 & 3 and within a Local Wildlife Site" (HLAA Appendix 4, PDF page 36). The method removes only land inside an absolute constraint and penalises only overlaps above 5 per cent, so the SSSI along the boundary, the Impact Risk Zone, the ancient woodland, priority habitat and the Green Belt cost the site nothing. On the inferred penalty levels (the only set consistent with every other score checked), the 68.75 is the flood zones alone. The two Local Wildlife Sites, at about 2.4 per cent of the parcel, fall below the threshold. The levels themselves are not published.

What it shows. On every constraint the Council's own consultants assessed, SS18 scores worst of the nine strategic allocations, and it is the only one adverse on all of them. The site selection method saw none of this because it weighted none of it.

Limits. Green Belt sub-areas for allocations other than SS18 are matched by the consultant's descriptions, not digitised. SS18's sub-areas are named in the proformas. Flood percentages are this representation's intersections of the Agency's public data. The balance score penalty levels are inferred (C4). Confidence for SS18's row: C5.

Files. report/SITE-SELECTION-RESCORE-NOTE-2026-09-23.md, report/BALANCE-SCORE-NOTE-2026-09-25.md, evidence/data/hlaa-balance-scores-2026-09-25.csv, gis/ea-open-data/allocations-ea-check-2026-09-10.csv.

Appendix N. The alternatives: brownfield land and the Council's own unallocated capacity

The question. Does deleting SS18 leave the plan short of homes, and did the Council examine the alternatives national policy requires before releasing Green Belt (NPPF paragraph 146)?

Data and method. Plan Table 2 and the Appendix 2 trajectory [1], Brownfield Land Register, April 2024 [120], HLAA Appendix 4, every site found suitable, available and achievable, each matched to the plan's allocations through the IIA's and HIA's site references (tools/hlaa_replacement_supply.py).

Results.

Table N1. *Supply within the plan period, 2024 to 2044*

	Homes
Plan supply with SS18 (Table 2)	25,406
SS18 within the period (plan Appendix 2)	3,400
Plan supply without SS18	22,006
Standard method minimum	21,480
Council's requirement	28,880

Table N2. *HLAA sites found suitable, available and achievable that the plan does not allocate*

	Sites	Homes
Not allocated, all	79	17,055
of which not Green Belt	24	1,014
of which not Green Belt, without permission, 10 homes or more	11	646
of which previously developed land in the Green Belt	4	527 to 1,444
of which greenfield Green Belt	51	14,597

What it shows.

1. Deleting SS18 leaves the plan above the Government minimum within its period, by 526 homes.

2. The Council's own assessment holds 646 homes on non-Green Belt sites and 527 to 1,444 on previously developed Green Belt land that the plan does not allocate. Adding them lifts the margin over the minimum to between 7.9 and 12.2 per cent without taking any greenfield Green Belt. National policy puts both sources ahead of SS18, which is greenfield and not grey belt.

3. Brownfield alone cannot meet the minimum: the register holds 3,755 to 3,950 dwellings, three quarters at Purfleet. But the examination paragraph 146 requires (an urban capacity study, a density test, a justified windfall figure, discussions with neighbours) has not been done. The register is not that examination.

4. The plan cannot meet its own 28,880 within the period with or without SS18. SS18 does not rescue the requirement.

5. The plan's headline 35,906 includes 10,500 homes after 2044. Deleting SS18 does not leave 30,906 in the period, as earlier material from the Protect Langdon campaign said, but 22,006.

Limits. HLAA capacities are whole-site working figures, not trajectories. Green Belt and brownfield status are taken from the officers' comments. This representation does not name or promote any alternative site. The point is that the Council's own evidence held alternatives it did not examine. Confidence: C4 to C5.

Files. report/REPLACEMENT-SUPPLY-NOTE-2026-09-23.md, report/BROWNFIELD-AND-ALTERNATIVES-NOTE-2026-09-23.md, evidence/data/hlaa-appendix4-sites-2026-09-23.csv, evidence/data/brownfield-register-2024-summary.md.

Appendix O. Flood and surface water: an independent assessment

The question. The Council has no flood model, drainage strategy or site-specific flood risk assessment for SS18. The models below were built in EPA SWMM 5 (rainfall and runoff) and HEC-RAS 7.0.1 (two-dimensional flooding), the software the Environment Agency and the drainage industry use; each is named in full at its method. Where does the water go, how much more would the built site shed, how much land would the Council's own drainage rule need, and what would Stanford-le-Hope receive?

What the Council's evidence contains. The Initial Proposals (2023) [48] record that runoff "from the far southwestern corner of the site affects flooding in of Stanford-le-Hope" (PDF page 152). The Water Cycle Study [43] places the site "within a critical drainage area", on London Clay, draining to the "upper tributaries of Mucking Creek". The Level 2 Strategic Flood Risk Assessment [34] (February 2026) is marked "NOT YET APPROVED FOR ISSUE" and for site 60940 says "This area should be retained as floodplain. Detailed modelling should be undertaken" (PDF page 14). Its site proformas are unpublished. The only site study [14] gives drainage 4 per cent of the developable land, with no calculation, strategy or outfall. The IDP's Lower Langdon schedule contains no flood, drainage, sewer or pumping item. Policy SS18 defers the drainage strategy and "hydrological and flood risk evidence" to a masterplan after allocation. Policy DMP29 requires a site-specific flood risk assessment, greenfield runoff rates and management of "surface flows from offsite".

Data. Environment Agency LiDAR (airborne laser survey) 1-metre terrain model (nine tiles, 26 September 2026), Risk of Flooding from Surface Water (RoFSW, September 2025) with its 2070s allowance, Flood Map for Planning Flood Zones (May 2026) and Flood Zones plus Climate Change, Recorded and Historic Flood Outlines, Main River map, asset register (all [91], Open Government Licence). Flood Estimation Handbook (FEH22) design rainfall and catchment descriptors bought from the Flood Estimation Handbook Web Service on 26 September 2026 for the SS18 outlet catchment (5.12 km²) and the eastern tributary (6.98 km²). London Clay soils (the FEH soil descriptors BFIHOST 0.22 and SPRHOST 48.6, hydrological soil group D).

Method, in three stages.

1. Flow paths. The terrain model was mosaicked at 5 metres for the region and 2 metres for the site, depressions breached and filled, flow directions computed (each cell draining to its steepest neighbour), and every cell of the allocation traced to the first main river it reaches.

2. Runoff and storage. A rainfall-runoff model in EPA SWMM 5 (the United States Environmental Protection Agency's Storm Water Management Model) for the 597 hectares upstream, Lower Langdon, the eastern tributary and Corringham Park Farm, for 30 design storms (1 to 24 hours; 1 in 2 to 1 in 1,000 years; the 1 in 100 year also at plus 25 and plus 40 per cent for climate change). "After" applies the consultants' land budget at 75 per cent hard surface. The storage the site needs to keep its outflow at the greenfield rate was computed on three readings of DMP29 and the Essex SuDS guide, and with the outfall shut for six hours by the tide.

3. Two-dimensional flooding. A HEC-RAS 7.0.1 two-dimensional model (the US Army Corps of Engineers' River Analysis System) of 46 km² including the allocation and Stanford-le-Hope: 115,787 cells on the 2-metre terrain with the main river channels carved through the A13 and railway embankments, land cover and soil by class, rainfall on the whole domain for 30 hours. Two cases are reported for each storm: fields today, and built with no drainage. Runs with the drainage land carved into the ground were also made, but the basins were cut parallel to the slope and held only 4 to 17 per cent of their intended volume, so they do not test the drainage and are not reported. The drainage is tested against the national standard in the runoff model instead (Table O5). Every run was checked for its geometry, land cover and soil layers before computing, and every run's volume error is below 0.15 per cent.

Results

Where the water goes. All of Lower Langdon drains to Stanford Brook and Mucking Creek. None drains to the Mardyke. Corringham Park Farm drains east (96.5 per cent) to the Corringham and Fobbing creeks. 597 hectares of hillside outside the allocation, 2.8 times its area, drains into it and leaves by a single outlet at the south-western tip into Stanford Brook just above the A13. The site study allows no corridor or land for that water.

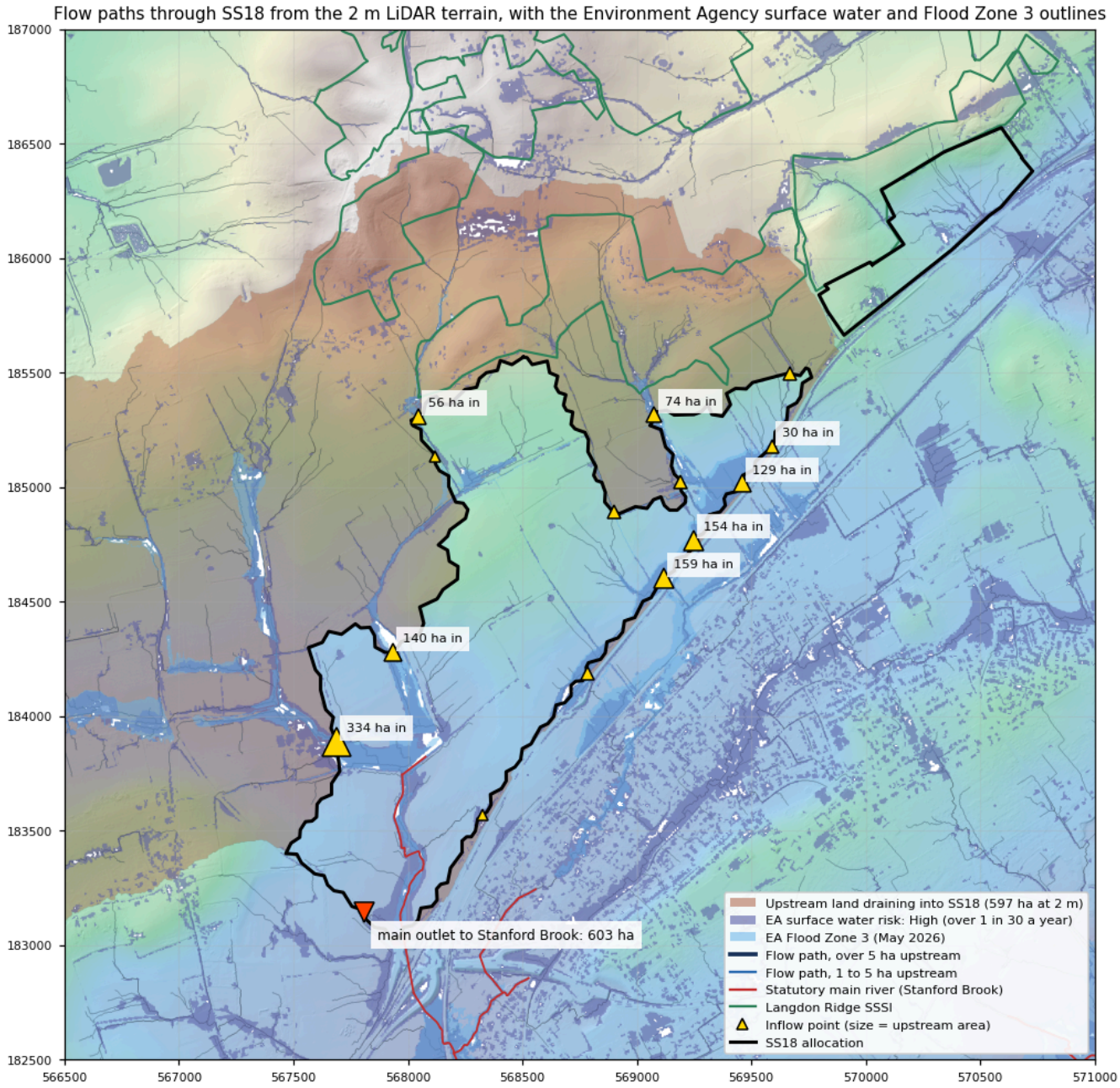


Figure O1. *Flow paths through the allocation from the 2-metre terrain model: inflow points sized by upstream area, the single outlet, the Agency's High surface water band and Flood Zone 3.*

Results

The Agency's maps.

Table O1. *Environment Agency flood mapping on the parcels (exact intersections, hectares)*

	Lower Langdon, whole parcel (225.3)	of which land the scheme can build on (161.2)	Corringham Park Farm (29.4)
Surface water, High (more than 1 in 30 a year)	30.8	2.7	2.2
Surface water, Medium	8.8	1.4	0.8
Surface water, Low	24.0	14.9	3.6
Flood Zone 3, present day	24.2 (10.7%)	excluded by the study	none
Flood Zone 2, additional	11.9 (5.3%)	excluded by the study	none
Flood Zone 3 plus climate change	37.7 (16.8%)	about 0.2 beyond the study's exclusion	none

Before and after.

Table O2. *Lower Langdon, 6-hour storms, before any attenuation (SWMM)*

Storm	Rain (mm)	Peak, fields (m³/s)	Peak, built (m³/s)	Volume, fields (m³)	Volume, built (m³)
1 in 2 year	23.7	0.17	4.9	2,400	21,700
1 in 30 year	50.9	1.55	16.9	39,500	70,700
1 in 100 year	65.8	2.79	23.3	66,200	100,700
1 in 100 plus 40%	92.1	5.77	36.0	119,700	156,800

Table O3. *Storage Lower Langdon needs (SWMM, critical duration)*

Test	Permitted outflow (m^3/s)	Storage (m^3)
National standard, as DMP29 requires: 1 in 100 year plus 40%, held to QBAR (the fields' 50 per cent annual chance runoff rate)	0.76	**177,000**
the same, outfall shut 6 hours by the tide	0.76	193,000
For comparison only, not the standard: 1 in 100 year plus 40%, held to today's 1 in 100 year field rate	2.79	105,000
For comparison only: 1 in 100 year plus 25%, the same limit	2.79	84,000
For comparison only: 1 in 100 year, no climate allowance, held to that storm's field rate	2.79	40,000
The Council's 6.4 ha as ponds 1.2 m deep (2 m deep)		holds 70,000 (111,000)

The comparison rows are looser tests than the standard and are shown because earlier drafts used them. Under the standard, with ponds at the Essex depth plus treatment ponds and channels, the drainage takes 19 to 25 hectares at Lower Langdon (Table O5; Appendix I uses 20). At the Environment Agency's published unit rates, open drainage would cost in the order of £3 million to £27 million to build and £86,000 to £528,000 a year to maintain (on the smaller volumes of the earlier tests). None of it is in the IDP.

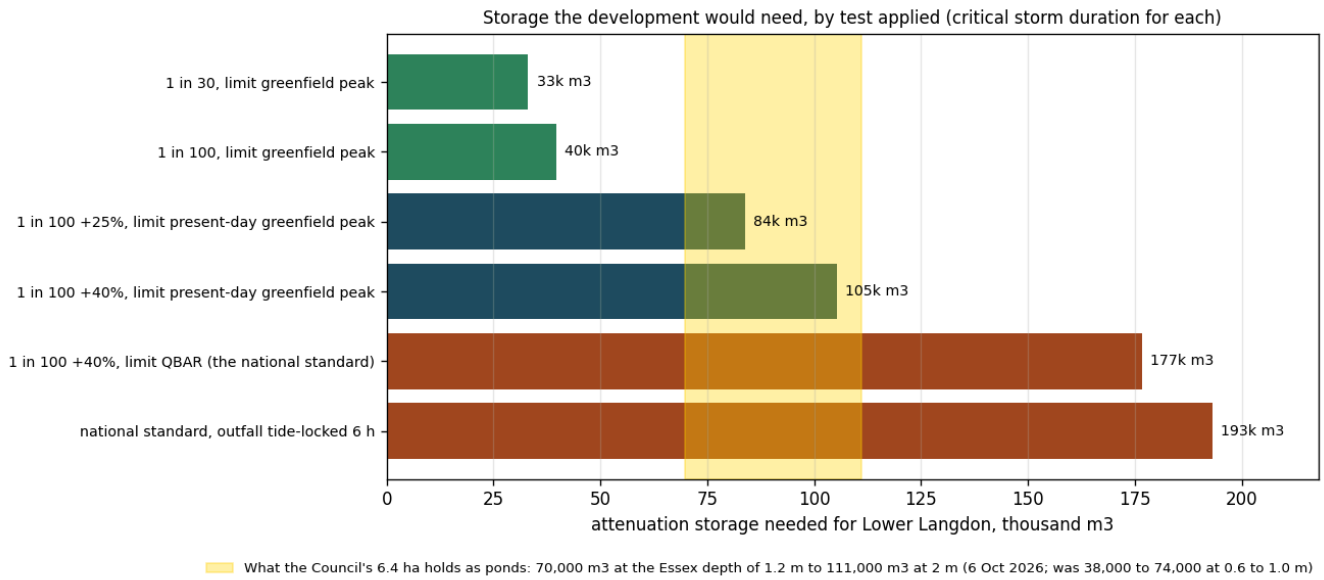


Figure O2. *Storage the development would need under each test (the national standard is the QBAR, plus 40 per cent case), against what the Council's 6.4 hectares holds as ponds 1.2 to 2 metres deep (yellow band, 70,000 to 111,000 cubic metres).*

Results:
What Stanford-le-Hope would receive (HEC-RAS).

Table O4*. Two-dimensional model, allocation (214.2 ha) and built-up Stanford-le-Hope (342 ha within 1.5 km of the station)*

Storm and case	Runoff from the allocation (m³)	Peak rate leaving the allocation (m³/s)
1 in 2 year: fields	11,700	15.7
built, no drainage	21,700	19.9
1 in 100 year: fields	79,400	38.2
built, no drainage	98,700	41.9
1 in 100 year plus 40%: fields	129,700	45.8
built, no drainage	151,600	50.1

The 1 in 100 year storm with the Environment Agency's 40 per cent climate change allowance was run on 1 and 5 October 2026. Each run's volume error is 0.02 per cent or less, and the geometry, land cover and soil values were checked cell by cell before use (gis/hecras/STATUS-2026-09-26.md).

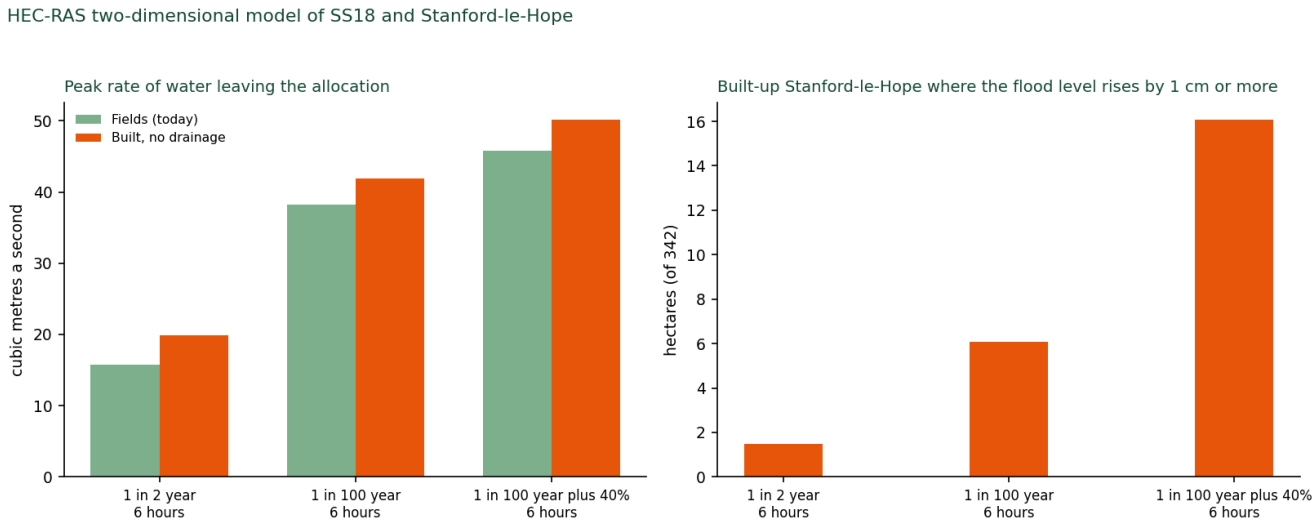


Figure O3. *HEC-RAS results by storm and case: the peak rate of water leaving the allocation, and the built-up area of Stanford-le-Hope where the flood level rises by 1 centimetre or more.*

Results

The drainage against the standard the Council's own policy names.

The standard. Policy DMP29 requires drainage to "Achieve greenfield runoff rates (as set out in national standards for SuDs)" (Regulation 19 Local Plan [1], page 341). The national standards (Defra, June 2025, updated July 2025) [141] say that where a site sheds more water once built than as fields in the 1 in 100 year, 6-hour storm, its outflow in the 1 in 100 year storm is limited to the fields' 50 per cent annual chance rate (QBAR, the ordinary yearly flood) or 3 litres a second per hectare, whichever is greater (standard 3.19), that the Environment Agency's Upper End climate allowance is used (3.8; 40 per cent for housing here, 2070s epoch, South Essex catchment), that storage is sized on the critical storm duration (3.23), that 10 per cent is added to hard surfaces within plots for future extensions and paving (3.33), that flood-locking of the outfall is considered (3.39.2), that attenuation sits at several points across the site (3.12), and that drainage features are not placed on land at 1 in 100 year flood risk (3.13). Thurrock is its own flood authority. The Essex County Council SuDS Design Guide [141] applies next door in Basildon and is used here for pond shapes and as a comparator: water no deeper than 1.2 metres (2 metres only

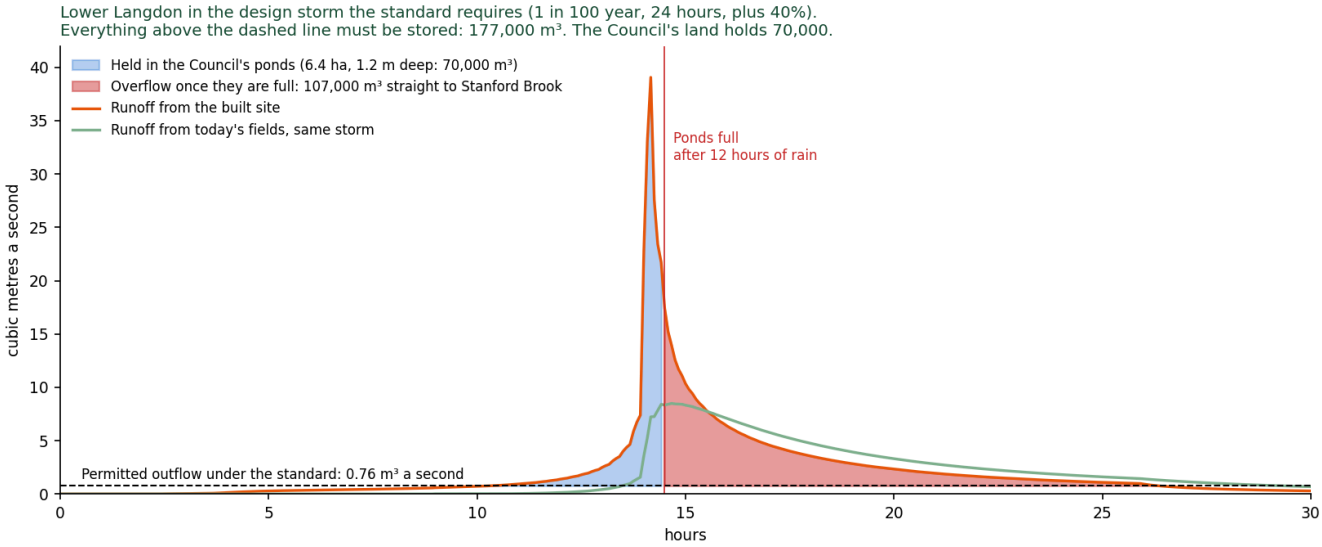
with extra safety measures), sides no steeper than 1 in 3. Essex is stricter than the national standard on outflow: it does not accept QBAR and asks for the once-a-year greenfield rate.

The method. The runoff model (item 2) was run for the 1 in 100 year storm plus 40 per cent at durations of 1 to 24 hours. QBAR for Lower Langdon is 0.76 cubic metres a second (3.39 litres a second per hectare, Institute of Hydrology Report 124), above the 3 litres floor. For Corringham Park Farm 0.12. The storage is the largest volume by which the built runoff exceeds that rate. Ponds were sized to Essex's shapes with 0.3 metres of freeboard, as five ponds at Lower Langdon and one at Corringham Park Farm. Treatment ponds and channels add 3.5 to 8 hectares at Lower Langdon (report/WATER-MANAGEMENT-APPRAISAL-2026-09-26.md, 3.3) and a pro rata share at Corringham Park Farm. The Council's land was then tested the same way, as perfect ponds with an outlet releasing exactly the permitted rate, which favours the Council.

Table O5. *SS18 against the national standard (1 in 100 year storm plus 40 per cent; runoff model)*

	Lower Langdon	**Corringham Park Farm**
Water shed, 1 in 100 year 6-hour storm: fields, built (m^3)	66,200; 100,700	9,900; 16,400
Permitted outflow in the 1 in 100 year storm (QBAR)	0.76 m^3/s	0.12 m^3/s
Storage needed (critical duration, 24 hours)	177,000 m^3	26,000 m^3
with the outfall tide-locked for 6 hours	193,000 m^3	28,000 m^3
with urban creep (sensitivity)	178,000 m^3	26,100 m^3
Drainage land needed: ponds 1.2 m deep, treatment ponds and channels	19 to 25 ha	3 to 4 ha
the same with 2 m ponds	13 to 19 ha	2 to 3 ha
Council's allowance	6.4 ha	0.5 ha
What it holds as ponds 1.2 m deep (2 m deep)	70,000 m^3 (111,000)	5,100 m^3 (7,900)
Share of the storage needed	39 per cent	20 per cent
Average water depth needed to fit the storage in the allowance	3.9 m	7.2 m

	Lower Langdon	Corringham Park Farm
Design storm with the Council's ponds: flow to the brook (permitted; today's fields)	15.2 m³/s (0.76; 8.5)	8.8 m³/s (0.12; 2.5)
Overflow once the ponds are full	107,000 m³	20,700 m³



Campaign runoff model (SWMM, FEH rainfall). Ponds assumed perfect: full volume below their edge, outlet releasing exactly the permitted rate. A real system would do worse.

Figure O4. *Lower Langdon in the design storm the standard requires: runoff from today's fields (green) and the built site (orange). Everything above the dashed permitted rate must be stored. The Council's 6.4 hectares, as perfect ponds 1.2 metres deep, holds the blue area. Once full, after about 12 hours, the red area goes straight to Stanford Brook.*

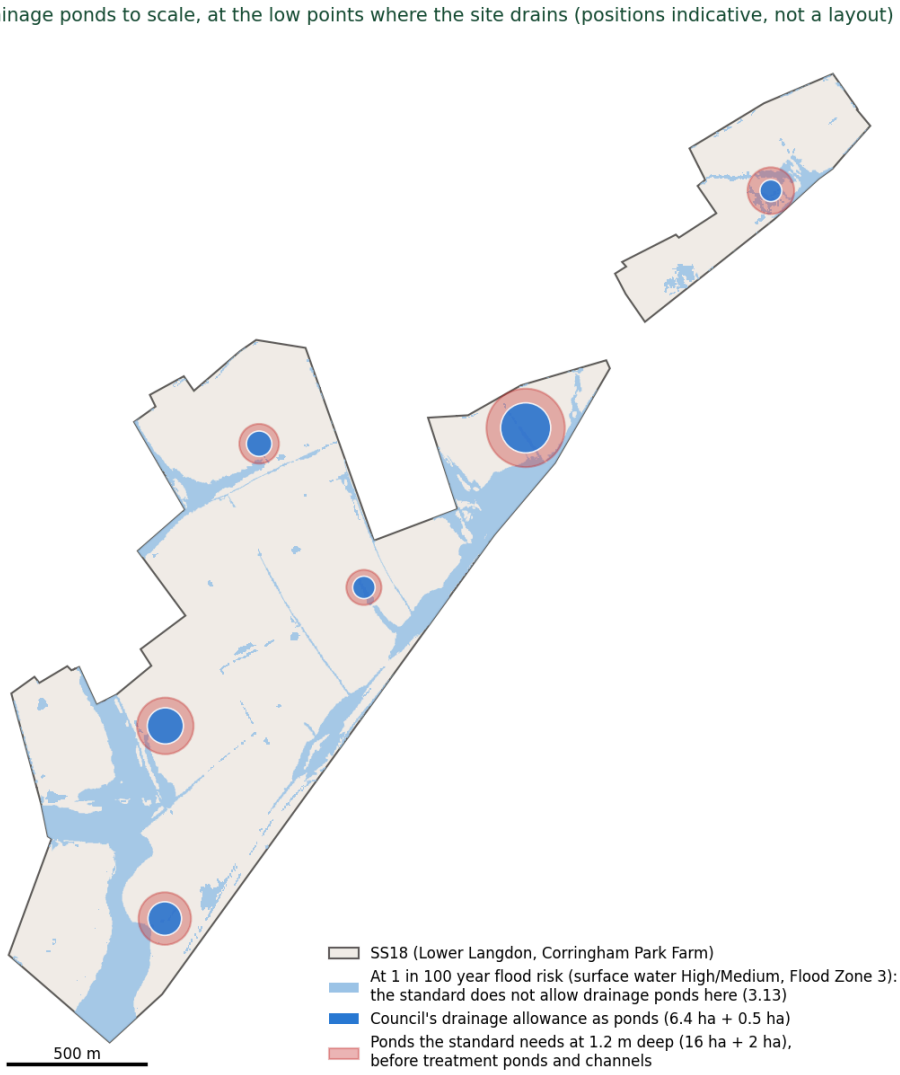


Figure O5. *The ponds to scale, at the low points where the site drains (positions indicative, not a layout): the Council's allowance (blue) against the ponds the standard needs at 1.2 metres deep (red), before treatment ponds and channels. Pale blue: land at 1 in 100 year flood risk (surface water High or Medium, Flood Zone 3), where the standard does not allow drainage ponds. About 1.8 hectares of the needed ponds, drawn at these points, falls on it and would have to move onto land the Council counts for housing.*

Caveats. These are model estimates, not an engineering design. A drainage engineer with a site layout, ground investigation and the Agency's river model would refine them. A developer could save land with underground tanks or permeable paving, but tanks cost many times more than ponds on a site that is already unviable (Appendix J), and the standard expects attenuation at several points and the Essex guide prefers it above ground. If 2-metre ponds were accepted throughout, the land needed would be 13 to 19 hectares at Lower Langdon, still two to three times the allowance. The 20 hectares at

Lower Langdon and 4.6 at Corringham Park Farm used in Appendix I (24.6 together) sit within the 22 to 30 hectares the standard needs with 1.2-metre ponds. With 2-metre ponds throughout they would overstate it by up to about 9 hectares. Scripts: tools/suds_national_standard_2026_10_06.py and tools/fig_suds_standard_2026_10_06.py. Data: evidence/data/suds-national-standard-2026-10-06.json.

What it shows.

1. The site sheds far more water. In the two-dimensional model the built allocation generates about 1.8 times the runoff of today's fields in the frequent storm, a quarter more in the 1 in 100 year storm and about a sixth more in the same storm with the 40 per cent climate change allowance, and the peak rate of water leaving it rises in every storm tested. The runoff model, which treats roofs and roads separately from gardens and verges, gives nine times and half as much again (Table O2). The two-dimensional figures are the lower bound, because that model applies one soil value to the whole built area.

2. The drainage land the Council allowed holds well under half of what its own policy requires. On the national standard that DMP29 names, Lower Langdon must hold back about 177,000 cubic metres in the design storm, about 70 Olympic swimming pools. The Council's 6.4 hectares holds about 70,000 as ponds within the Essex safety limits. To hold it all, the ponds would have to average about 3.9 metres deep (Table O5; Figure 1). In the design storm those ponds fill after about 12 hours and about 107,000 cubic metres then overflows into Stanford Brook, at up to 20 times the permitted rate and nearly twice what today's fields send in the same storm (Figure O4). Corringham Park Farm's 0.5 hectares holds about a fifth of its need.

2A. Checked against the Environment Agency's own river model (added 9 October 2026). The Agency's reply to this representation's information request released the modelled flows and levels of its Stanford 2016 model (CH2M) at ten points on the Main River, seven of them inside the Lower Langdon parcel, present day and with climate change, without defences (Appendix E, item E7; [148]). At the lowest point inside the parcel, 44 metres above the A13 culvert (node 2, 567970/183104), the Agency's 1 in 100 year flow today is 4.6 cubic metres a second, rising to 5.7 with its central climate change allowance (plus 25 per cent) and 7.7 with its upper allowance (plus 70 per cent). Its 1 in 1,000 year flow is 8.9. Three things follow (Table O6; Figure O6).

- **The two models agree on today's brook.** This representation's runoff model gives 4.8 cubic metres a second for the fields in the 1 in 100 year, 1-hour storm, within 6 per cent of the Agency's figure. For longer nested storms it gives higher peaks for the fields (10.4 at 6 hours, 15.8 at 24 hours), as a screening model built to put peaks at the top of

their range does. The Agency's routed model is the better estimate of today's peak, and this representation adopts it as the baseline from here on. The direction of the difference favours the Council: where the storage calculation holds the built site back to the fields' own peak in the same storm, a lower true baseline means more storage is needed, not less.

- **Built without full attenuation, the site would send the brook a flow the Agency's model has never seen.** The built case with no drainage gives 24 to 36 cubic metres a second at the A13 across the storm durations tested (29.6 in the 6-hour storm): five to eight times the Agency's 1 in 100 year flow today, four times its flow with the upper climate change allowance, and nearly three times its 1 in 1,000 year flow. That is the scale of the drainage task the Council's 6.4 hectares is meant to carry, measured against the Agency's own numbers.
- **Climate change raises the Agency's own flood level beside the A13 by more than a metre.** At the same point the Agency's 1 in 100 year water level rises from 6.35 metres above datum today to 6.67 with the central allowance and 7.45 with the upper allowance, a rise of 1.1 metres. 500 metres upstream (node 5) the rise is 0.5 metres. The capacity study sets its housing back 15 metres from the present Flood Zone 3 and does not use the Agency's climate change extents at all (Method, item 1). On the Agency's own model the floodplain it builds beside will be deeper and wider over the plan period.

A fourth finding follows from the model files themselves (Products 5 to 7, received 9 October 2026 and held in the repository under the Agency's licence). **The Agency's detailed model does not cover the site.** The Stanford 2016 model is a one-dimensional river model of the brook joined to a two-dimensional model of the ground. The two-dimensional part covers 272 hectares, almost all of it the town, and takes in 4.5 hectares of the Lower Langdon parcel beside the A13 and none of Corringham Park Farm.

Its 1 in 100 year flood covers 0.7 hectares of the parcel (1.9 with the upper climate change allowance; 3.1 in the 1 in 1,000 year flood), where the published Flood Map draws 24.2 hectares of Flood Zone 3 and 11.9 of Flood Zone 2 on the same parcel.

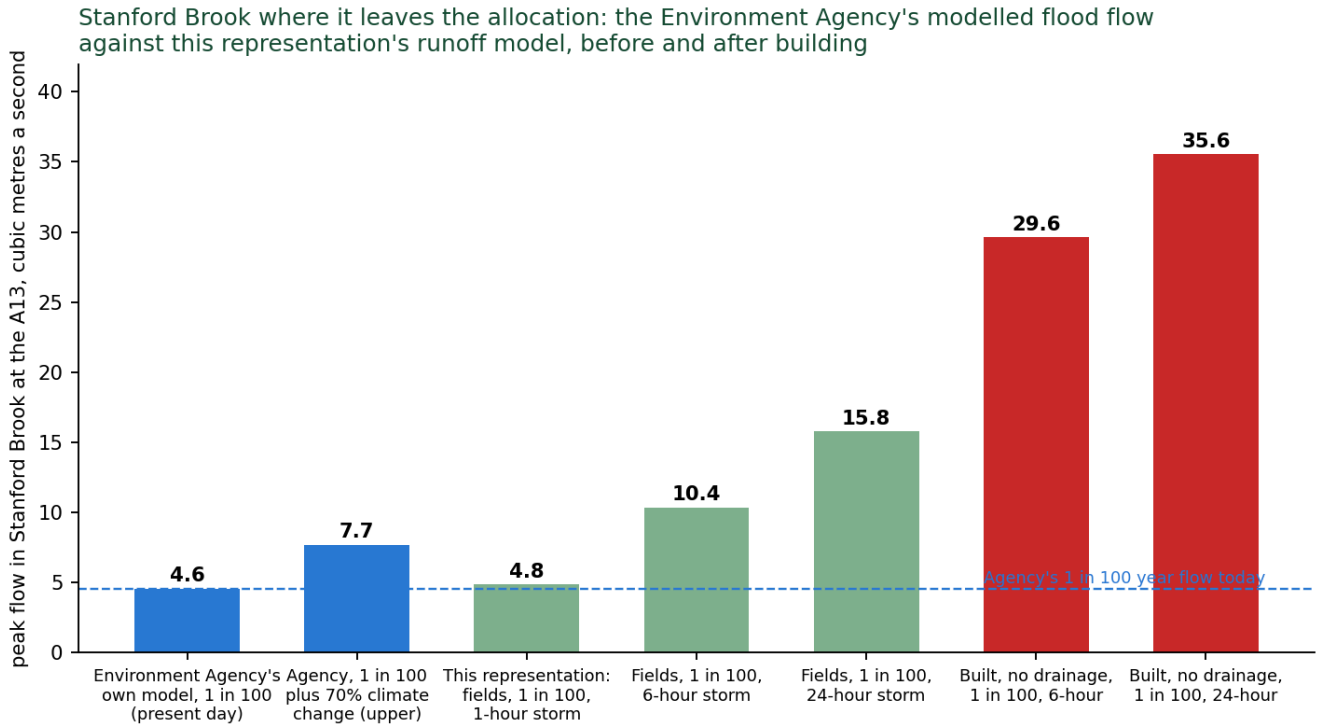
The Agency's reply explains the difference: the zones on this land are "a combination of local detailed modelling (Stanford 2016 model) and national modelling (New National model)", and the national model "remains a generalised tool intended to inform a high-level risk assessment" which, where used for development proposals, requires "further assessment within the FRA [flood risk assessment] … to provide reliable flood level, extent, and depth data". In plain terms, the only detailed flood model the Agency holds

stops at the A13. The flood zones across the site are broad-scale national mapping. The detailed modelling the Council's own Level 2 assessment says "should be undertaken" has been done by nobody (evidence/data/ea-stanford-model-extents-2026-10-09.json; tools/ea_stanford_model_extents_2026_10_09.py).

The Council's evidence base contains none of these figures, although the Agency holds them for any applicant who asks. They were obtained for this representation in four weeks under the Environmental Information Regulations.

Table O6. The Environment Agency's modelled flows and levels at the A13 (node 2) against this representation's runoff model. *Agency: Stanford 2016 model, no defences. This representation: EPA SWMM, upstream catchment plus the Lower Langdon parcel, FEH22 nested storms, peak at the same point. Sources: Product 4 GJ7EVH6M6EA4 [148], evidence/data/ea-product4-comparison-2026-10-09.json, tools/ea_product4_compare_2026_10_09.py.*

Case	Agency flow (m³/s)	Agency level (metres above Ordnance Datum, m AOD)	This representation, fields (m³/s)	This representation, built, no drainage (m³/s)
1 in 2 year	1.5	5.72	1.1 (1 to 24 hours)	4.5 to 5.9
1 in 100 year, today	4.6	6.35	4.8 (1 hour) to 15.8 (24 hours)	24.3 to 35.6
1 in 100 year plus 25%	5.7	6.67	7.4 (1 hour) to 25.1 (24 hours)	32.8 to 50.2
1 in 100 year plus 35% (Agency) or 40% (this representation)	6.2	6.84	9.8 (1 hour) to 31.6 (24 hours)	38.3 to 59.7
1 in 100 year plus 70%	7.7	7.45	not run	not run
1 in 1,000 year, today	8.9	8.09	not run	not run



Agency: Product 4 GJ7EVH6M6EA4, Stanford 2016 model (CH2M), node 2 (567970, 183104), no defences, released 9 October 2026 under EIR2026/46894.
This representation: EPA SWMM runoff model, upstream catchment plus the Lower Langdon parcel, FEH22 nested design storms (Appendix Q, Table Q2; tools/step4_swmm.py).
The Agency's figure is the baseline the plan's flood evidence should have started from; the Council's evidence base does not contain it.

Figure O6. *Stanford Brook where it leaves the allocation: the Environment Agency's modelled 1 in 100 year flow, today and with its upper climate change allowance, against this representation's runoff model for the fields and for the built site without drainage. The two models agree on today's fields in the 1-hour storm. The built site without full attenuation exceeds every flow the Agency has modelled, including the 1 in 1,000 year flow. Source: Table O6.*

3. The land is not there. The standard needs 19 to 25 hectares of drainage land at Lower Langdon (13 to 19 with 2-metre ponds), three to four times the allowance, and 3 to 4 at Corringham Park Farm. Some of the low points where ponds would naturally go are at 1 in 100 year flood risk, where the standard does not allow them (Figure O5). The difference comes out of the housing (Appendix I) and its cost out of the viability (Appendix J), and neither is in the Council's evidence.

Limits. The runoff model is a screening model: one block per catchment, no sewers or culverts, and a nested storm profile that puts peaks at the top of their range. The volumes and storage needs, which drive land and cost, move by 20 per cent at most across the sensitivity tests (Table 5 of the full appendix). The two-dimensional model has no sewers or field drains, so rain ponds in hollows and on streets: absolute depths are not meaningful and only the before-and-after difference at the outfall is reported. Its "built" land is a 138.5-hectare footprint at curve number 96 without a separate impervious fraction, so it

understates the extra runoff. With no drains on the new town it also releases that runoff about as slowly as the fields do, so it understates the effect on the brook. Its drainage runs are withdrawn (Method, item 3). The drainage test against the national standard (Table O5) assumes perfect ponds and outlets, and treatment and conveyance land from this representation's appraisal. See its caveats. The tide-locked outfall at Mucking and the brook's capacity downstream are not modelled because no river model was published when this work was done. On 9 October 2026 the Environment Agency supplied the modelled levels and flows of its Stanford 2016 model at ten nodes on the Main River through and below the site, and offered the model itself under licence. Those flows and levels are compared with this representation's runoff model at result 2A and Table O6: the two agree on today's fields in the 1-hour storm, and the Agency's routed figure is adopted as the baseline for today's peak. The model itself has not yet been run (Appendix C). Confidence: C4 for the storage and land figures. C4 for the two-dimensional differences. C5 for the Agency's mapped extents.

Files. report/APPENDIX-FLOOD-MODELLING-2026-09-26.md (full method, all 30 storms and the sensitivity tests), report/FLOW-PATHS-NOTE-2026-09-26.md, report/SWMM-MODEL-NOTE-2026-09-26.md, gis/hecras/STATUS-2026-09-26.md (run-by-run record and checks), gis/hecras/results/, evidence/data/swmm-ss18-2026-09-26.json, evidence/data/hecras-summary-2026-10-01.json, evidence/data/flood-on-gda-2026-10-01.json.

Appendix P. Health: the hospital the evidence describes wrongly, and the demand it does not count

The question. What acute and primary care capacity does the Council's evidence show for SS18's 12,000 people?

Data. IDP [30], Care Quality Commission (CQC) press release, 15 October 2025 [113], NHS England Digital, Hospital Accident and Emergency Activity 2024-25 [119].

Results. The IDP (July 2026) states: "The most recent Care Quality Commission inspection of the Hospital took place in 2019. The commission rated the trust as good overall" (PDF page 118). On 15 October 2025 the CQC rated Basildon University Hospital inadequate, with urgent and emergency services inadequate for safe and well-led, and imposed conditions on the provider's registration under Section 31 "because people would be at risk of harm if it did not take this action". England recorded 27.4 million A&E attendances in 2024-25, about 0.47 per person. 12,000 people therefore imply in the order of 3,700 to 5,600 more attendances a year, most at Basildon. The words "A&E", "accident and emergency" and "emergency department" appear in none of the plan, the IIA, the HRA, the Consultation Statement, the Cabinet report or the site transport assessment, and the trust that runs the hospital is not among the bodies consulted. For primary care the Integrated Care Board records GP capacity "not available in any of the PCN areas" (primary care networks) and that it "is not funded to act as a property developer" (IDP PDF pages 123 to 124). Policy SS18 provides about 600 square metres for a population that needs about seven GPs.

What it shows. Members approved the plan on an infrastructure document that describes the borough's acute hospital by a rating six years old and two grades out of date, and that contains no acute care assessment at all. Confidence: C5 for the records. The attendance figure is an order of magnitude (C4).

Files. report/HEALTH-CHECK-NOTE-2026-09-23.md.

Appendix Q. Road noise from the A13: the Government's noise maps across the site

The question. How much of the land allocated for homes is already exposed to road noise above the levels the World Health Organization and the British Standard for homes set, and what has the Council done about it?

What the Council's evidence says. No published document assesses noise on SS18, and none proposes a noise barrier, acoustic fence or earth bund. Policy SS18 contains no noise requirement. The IIA [8] scores SS18 significant positive for health while noting that the policy does not address noise (paragraph 6.426). The Council's 2023 Initial Proposals said of Lower Langdon: "The proximity of this site to the A13 will limit the developable area of the site as well trigger the need to consider ways to reduce the impact noise could have on future residents" (PDF page 152). The site study [14] proposes to "Utilise green corridors and the placement of non-residential uses to create a buffer reducing negative impacts from Stanford-Le-Hope Bypass" (PDF page 27), but records that road setbacks "have not been deducted from the Gross Developable Land Area" and are instead counted within the 4 per cent of land set aside for habitat corridors, hedgerows, woodland edges and ponds (PDF pages 22 and 24 to 25). No land was set aside for a buffer, and the developable area was not reduced.

Data. Defra Strategic Noise Mapping, Round 4: road noise from all roads, modelled for 2021 traffic on a 10 metre grid at a height of 4 metres (about first-floor window level), for three measures: LAeq,16h, the average over the day from 07:00 to 23:00, Lden, the 24-hour average with penalties for the evening and night, and Lnight, the average from 23:00 to 07:00 [134].

Method. Every 10 metre cell whose centre lies inside the allocation was counted: for Lower Langdon, the boundary traced from the Policies Map (214.6 hectares). For Corringham Park Farm, which the traced boundary does not include, the Council's own housing land site 60893 (29.4 hectares) [38]. Together 244 hectares, against the policy's approximately 250. The thresholds are the World Health Organization's Environmental Noise Guidelines (2018) for road traffic, Lden 53 dB and Lnight 45 dB, and BS 8233:2014 for outdoor amenity space such as gardens, desirably no more than 50 dB LAeq and an upper guideline of 55 dB. [134]

Table Q1. The share of each parcel at or above each noise level, by day and by night.

Share of land at or above the threshold	Lower Langdon (214.6 ha)	Corringham Park Farm (29.4 ha)	SS18 (244.1 ha)
WHO road traffic limit, Lden 53 dB	54%	100%	59% (144 ha)
WHO night limit, Lnight 45 dB	54%	100%	59% (144 ha)
BS 8233 gardens, desirable, LAeq,16h 50 dB	54%	100%	60% (146 ha)
BS 8233 gardens, upper guideline, LAeq,16h 55 dB	30%	69%	35% (85 ha)
LAeq,16h 60 dB	14%	31%	17% (40 ha)

Median levels across the allocation: LAeq,16h 51.9 dB, Lden 54.7 dB, Lnight 46.7 dB. Up to about 80 dB beside the A13. Measured by distance from the A13, the daytime level falls below the British Standard's upper guideline for gardens (55 dB) only beyond about 300 metres, and below its desirable level (50 dB) and the WHO night limit only beyond about 500 metres. About 106 hectares of the allocation, 44 per cent, lie within 300 metres of the A13, and about 154 hectares, 63 per cent, within 500 metres. There is no fixed national buffer distance. The professional guidance for new homes (ProPG, 2017) works from these levels and treats a site at about 70 dB by day, the median level within 50 metres of the A13 here, as high risk, where refusal on noise grounds is a real prospect without good acoustic design [134].

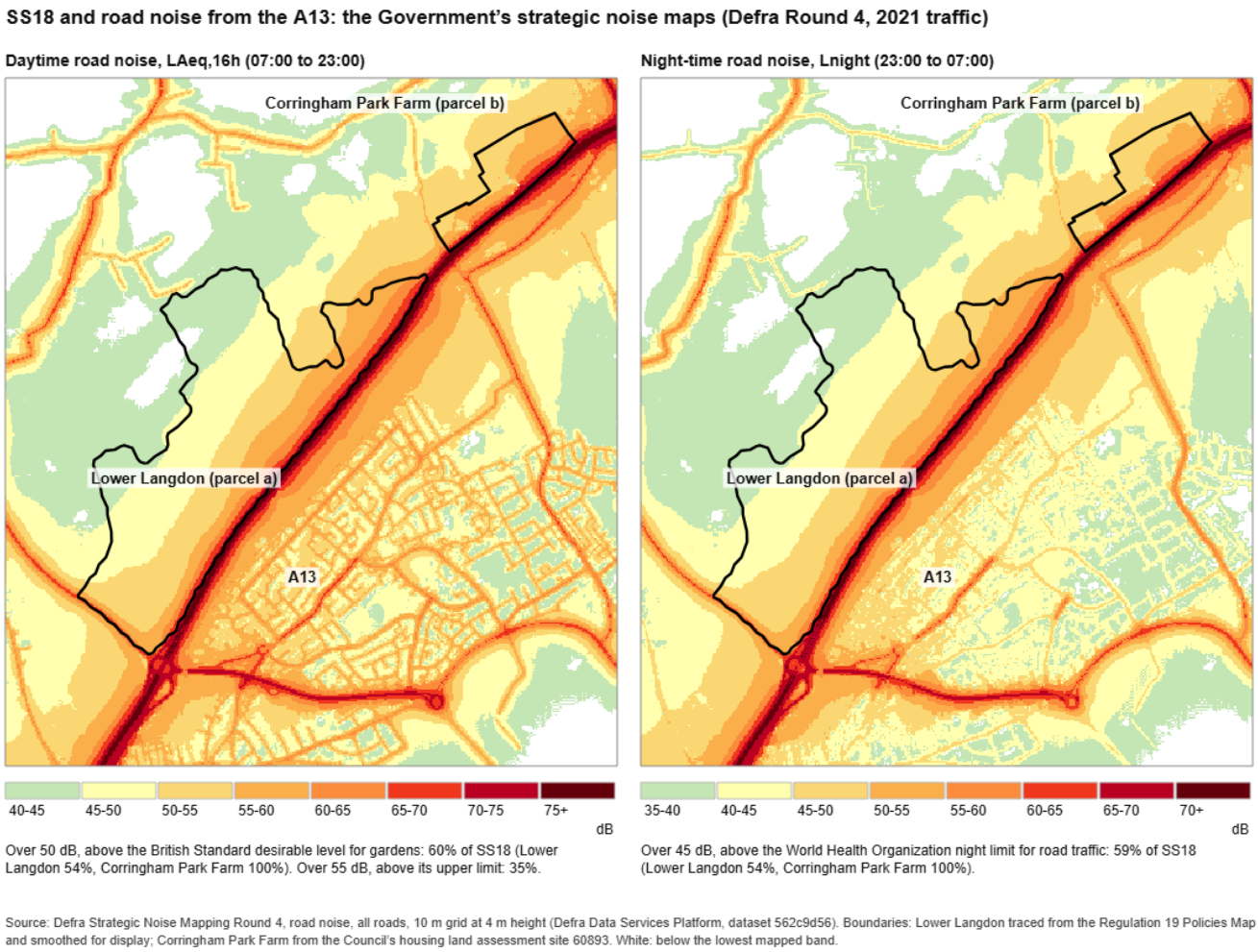


Figure Q1. *Road noise from the Government's strategic noise maps (Defra Round 4, 2021 traffic), daytime and night-time, with the SS18 parcels outlined.*

What it shows. On the Government's own model, nearly 60 per cent of the allocation is already above the WHO's recommended limits for road traffic noise by day and by night, and above the British Standard's desirable level for gardens. More than a third is above its upper guideline. All of Corringham Park Farm, which the policy says will be built first, is above the WHO day and night limits, and more than two thirds of it is above the upper guideline for gardens. These are levels before the new town adds its own traffic.

What a barrier could and could not do. A check of the existing ground (Environment Agency LiDAR) shows that the land rises from about 7 to 18 metres beside the A13 to about 50 metres at the northern edge of Lower Langdon, up to about 33 metres above the nearest point of the road, and to about 42 metres at Corringham Park Farm. Because that rise is spread over up to 1.2 kilometres, the ground is nowhere steeper than about 1 in 10 as seen from the road, so a barrier at the edge of the road would still sit between the traffic and almost all of the site [134]. This representation therefore does not argue that a barrier

could not work. It argues that none is proposed, costed, designed or given land, that one long enough to protect both parcels would run for about 4 kilometres along the A13, in the Green Belt and in the setting of the SSSI and of Horndon on the Hill's listed buildings, none of which has been assessed, and that the Council's own 2023 finding, that the A13 limits the developable area, was not carried into the capacity on which the 5,000 homes rest.

What a bund and fence would cost, and what it would take. The established answer beside a busy road is an earth bund with an acoustic fence on its crest: for example, beside the M40 at Banbury a housebuilder built an engineered bund about 1,300 metres long and 2 to 9 metres high, with a close-boarded acoustic fence, approved by Highways England after noise modelling found much of that site above the planning thresholds [134]. For SS18 the A13-facing edges are about 4.1 kilometres long (about 3.0 kilometres at Lower Langdon and 1.1 at Corringham Park Farm). A 6-metre bund with a steep reinforced road face, a 2-metre crest and a 1 in 3 back slope occupies a strip about 22 metres wide and holds about 72 cubic metres of earth per metre: about 296,000 cubic metres in all. At £300 to £500 a metre for an acoustic fence installed (a National Highways contract for more than 1,000 metres of acoustic barrier on the A47 was let at up to £500,000) and an assumed £5 to £15 a cubic metre for site-won earth moved and compacted (an assumption, not a sourced rate), the bund and fence would cost about £2.7 million to £6.5 million [134]. The cost is not the main point. The strip takes 6.0 hectares of the land the capacity study counts as developable (3.5 at Lower Langdon and 2.5 at Corringham Park Farm, after the setbacks the Council already applies), which on the Council's own capacity figures removes a further 127 homes, from 2,861 to 2,734 (Appendix I, Table I2). With SANG to Natural England's standard as well, the figure falls to 2,126. Carried into the Council's own appraisals with the bund's cost added, the land is left £51 million to £56 million short at the plan's 35 per cent affordable housing, and no affordable housing is viable even at the stated ten-times land price (Appendix J, Table J1). Added at each step rather than the last, the bund lowers every result: the Council's own capacity falls from 17 per cent affordable housing to 14, the drainage step from 5 to 2, and from the Fell-me-down Shaw step onward none is viable (Figure 6). None of this is in the policy, the IDP, the viability study or the capacity study.

What the Council required on two recent estates beside the A13. Two estates near the A13 at Stanford-le-Hope were recently built on land released from the Green Belt by the 2011 Core Strategy: 127 homes off Stanford Road (17/00403/FUL, approved by Planning Committee on 18 October 2018) and 153 homes off The Manorway, west of Victoria Road (outline 14/01321/OUT, 2015; reserved matters 18/01660/REM, 2020) [135]. They could be cited as proof that homes can be built near the A13 without a barrier. The planning files show something different.

• Each had a site noise survey and assessment before approval, reviewed by the Council's Environmental Health officer, and a planning condition requiring the noise measures to be installed before occupation (condition 24 and condition 39).

• On the Stanford Road estate the developer built no barrier of its own. It relied on rows of three-storey terraces as a screen, enhanced glazing and acoustic vents, with windows kept closed in the most exposed homes. Its own assessment records that the A13 is already screened there by the ground and an existing A13 acoustic fence. Gardens were predicted at 57 to 61 dB, and one communal area at 73 dB. The Environmental Health officer wrote that "The external noise levels affecting gardens and outdoor living areas all exceed the WHO upper criteria of 55dB LAeq,16hr". The committee report called this "negative harm" to be weighed "to a site which is identified for housing development in the current Development Plan".

• On the Manorway estate the assessments relied on existing and planned barriers beside The Manorway. The 2018 assessment recommended a 4-metre acoustic fence along the railway, which would cut only 2 to 3 dB in gardens because the A13 and The Manorway dominate. It found gardens backing onto The Manorway would stay above the desirable level. The approved boundary plan shows an acoustic fence "to specialist design".

Table Q2. The two Stanford-le-Hope estates and the A13 edge of SS18 on the Government's noise map.

Government noise map, Round 4	Stanford Road estate	Manorway estate	SS18, within 50 m of the A13	SS18, 50 to 100 m	SS18, 100 to 150 m
Daytime median, LAeq,16h	57.3 dB	56.6 dB	70.6 dB	63.8 dB	59.3 dB
Night median, Lnight	52.5 dB	51.5 dB	64.4 dB	57.7 dB	53.5 dB
Share at or above 55 dB by day	93%	84%	100%	99%	95%

Three points follow. First, the Council required a site noise assessment and secured mitigation by condition on both estates. SS18 has no assessment and no requirement. Second, the Council's officers accepted noisy gardens on both estates because the land was already allocated. That reasoning cannot justify the allocation itself, which is the stage at which this harm must be weighed for SS18. Third, without a barrier the result on

both estates was closed windows, acoustic ventilation and gardens above the guideline, for 127 and 153 homes. SS18 would repeat that for thousands of homes on land that is louder at its A13 edge, by about 13 dB by day, and has no existing screen.

The alternative, distance. Without a bund, homes would have to stand about 300 metres back from the A13 to meet the upper guideline for gardens, which would take about 106 hectares, 44 per cent of the allocation, and about 500 metres to meet the desirable level and the WHO night limit, about 154 hectares, 63 per cent. That is not modelled in the step-down because, at that scale, the allocation would no longer resemble the scheme the Council has assessed.

Limits. Strategic noise maps are modelled annual averages made for strategic planning, not a site noise assessment. That assessment is what the Council has not done. Levels at garden height (1.5 metres) can be a little lower than at 4 metres away from the road. The boundaries are accurate to a few tens of metres. New buildings would screen some land and reflect noise onto other land. The two estates are measured over their OpenStreetMap residential areas (3.3 and 5.5 hectares), which may not match the permission boundaries exactly, and whether the Round 4 model includes their new buildings and fences has not been checked. Whether the Manorway estate's acoustic fence was built to 4 metres has not been checked on the ground.

Test engaged. Justified: an allocation for 5,000 homes with no noise evidence, on land the Government's own maps put largely above health-based limits, when the Council required site noise evidence for 127 and 153 homes nearby. Effective: the mitigation the capacity depends on is neither identified nor provided for. Consistent with national policy: the NPPF expects plans to avoid noise giving rise to significant adverse impacts on health and quality of life (paragraph 198(a)).