DESK STUDY: FROM ZERO TO YOUR FIRST REPORT

# Final assessment pack: Hollowmere Farm

The brief, what to submit, how it is marked, and the full data pack. Every place, record and person in this pack is fictional.

THE BRIEF

## Write the desk study for Hollowmere Farm

A developer plans to build **30 homes** with gardens, an access road and soakaways for surface water on **Hollowmere Farm**, a fictional site on the edge of the village of Kestrington. They have asked you to prepare a desk study to support their planning application and to plan the ground investigation.

Everything you need is in the data pack below: the history, the geology and water, the constraints search, and a colleague's walkover notes. You do not need to visit anywhere or buy anything. Kestrington, Hollowmere Farm and every record in the pack are fictional.

**This assessment tests the four course outcomes. You will:**

1. Explain what the desk study is for, and the documents it follows.
2. Interpret the information in the data pack, and explain what it means for the site.
3. Interpret the walkover notes, and compare them with the desk findings.
4. Bring it all together into a clear desk study report with a conceptual site model and recommendations.

**This is not like Brindlemere**

Hollowmere Farm is rural, on chalk, and has different problems. Use the method from the course, not the answers from the example. Some important issues are only visible if you read two parts of the data pack together.

WHAT TO SUBMIT

## One report, in Word or PDF

- **Length:** about 3,000 to 5,000 words, not counting tables, figures and appendices.
- **Structure:** as taught in Lesson 8: Summary; 1 Introduction; 2 Scope and approach; 3 Site history; 4 Ground and water; 5 Constraints and hazards; 6 Site walkover; 7 Preliminary conceptual site model; 8 Conclusions and recommendations; Limitations; References.

- **Must include:** a site history timeline, a contaminant linkage table with a risk rank and reason for each linkage, a preliminary ground model, a sketch of the zones you suggest for the investigation team, and recommendations sorted into before, during and after the investigation.
- **Sources:** refer to the data pack items by their letter (for example, “Data pack C2”). You may also cite the real UK documents from Lesson 2.
- **Your own work:** write it yourself. You may use the course and its example, but not copy text from it.

HOW IT IS MARKED

## 100 marks, in eight parts

| Part | What earns the marks | Marks |
|---|---|---|
| **Introduction and scope** | Clear purpose, proposed development and documents followed | 10 |
| **Site history** | An accurate timeline, with each past use turned into a possible hazard | 15 |
| **Ground and water** | Geology, records, aquifer, protection zone and flooding, each with what it means | 15 |
| **Constraints and hazards** | Every topic covered, with any permission or specialist needed before work | 15 |
| **Site walkover** | Observations compared with the desk findings; new findings picked up | 10 |
| **Conceptual site model** | Sensible linkages, consistent ranking with reasons, ground model and zones | 15 |
| **Recommendations and limitations** | Specific, tied to the homes and drainage, in order, every main risk covered; honest limitations | 15 |
| **Writing and consistency** | Clear summary, plain writing, consistent numbers and names, sources referenced | 5 |

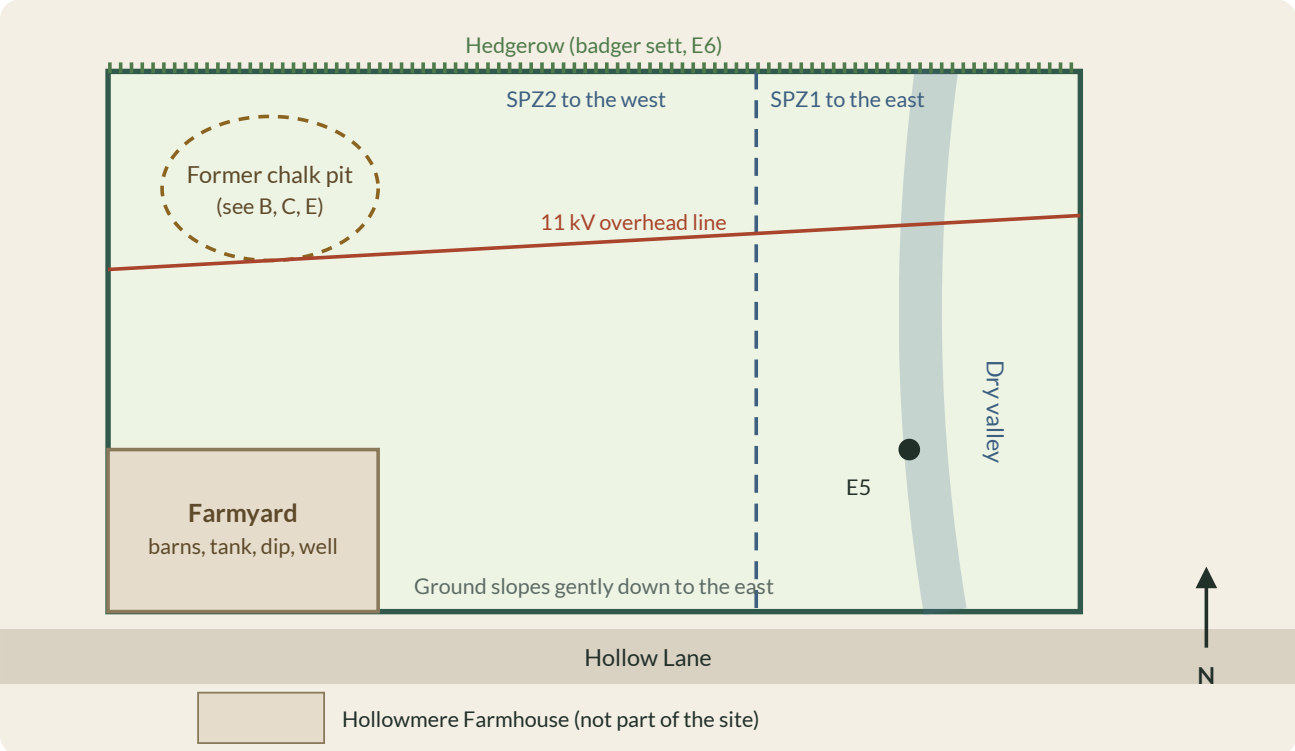
Overall: **70 and above** excellent, **60 to 69** very good, **50 to 59** good, **40 to 49** adequate, **below 40** needs more work.

DATA PACK

# Hollowmere Farm: everything you need

## A. The site and the proposal

| Item | Details |
|---|---|
| **A1 Location** | Northern edge of Kestrington village, on a gentle chalk hillside sloping down to the east. Access from Hollow Lane along the southern boundary |
| **A2 Area** | About 2.4 hectares: the farmyard in the south-west, an arable field over the rest |
| **A3 Current use** | Farm buildings derelict for about ten years. Field in arable use |
| **A4 Proposal** | 30 two-storey homes with gardens across the site, including the north-west corner. A new access road from Hollow Lane. Surface water to soakaways in the lower, eastern part of the site |
| **A5 Not part of the site** | Hollowmere Farmhouse, just south of the farmyard across Hollow Lane, remains a private home |




A6. Site plan (not to scale). Fictional.

## B. Historical maps and images

| Item | Date and source | On and around the site |
|---|---|---|
| **B1** | About 1880, map | Arable field. “Chalk Pit” in the north-west corner, about 40 m across. Hollowmere Farm buildings in the south-west, with a “Well” in the farmyard |
| **B2** | About 1910, map | Pit now “Old Chalk Pit”, slightly larger, about 50 m across |
| **B3** | About 1945, map | “Kestrington Airfield” shown 1.2 km to the east. No change on site |
| **B4** | About 1962, map | Pit labelled “Refuse Tip”. A large new barn in the farmyard. A small unlabelled building beside it |
| **B5** | About 1978, map | Pit no longer shown; the area is shown as part of the field. Airfield labelled “Disused” |
| **B6** | 1999, aerial photo | A slight hollow and patchy crop in the north-west corner. A tank beside the large barn |
| **B7** | 2023, satellite image | Farm buildings with damaged roofs. Field in crop |

## C. Ground and water

| Item | Source | Information |
|---|---|---|
| C1 | Geology map | Bedrock: chalk across the whole site. Superficial deposits: head (clay, silt and flints) along the dry valley on the eastern edge only |
| C2 | Borehole record, 1950s farm water well, in the farmyard | Topsoil to 0.3 m; weathered, broken chalk to 6.0 m; chalk with flints to 60 m (end of record). Water level 38 m below ground |
| C3 | Trial pit record, 1990s road scheme, 400 m south | Topsoil to 0.3 m; clay with flints to 1.2 m; soft, broken chalk (described as "structureless") to 3.0 m; firmer chalk below. Dry |
| C4 | Natural hazard data (purchased report) | Dissolution of soluble rocks: moderate. Other natural hazards: low |
| C5 | Aquifer designations | Chalk: Principal aquifer. Head: Secondary undifferentiated |
| C6 | Source Protection Zones | A public water supply borehole lies 700 m to the east. The eastern part of the site, including the dry valley, is in SPZ1. The rest of the site is in SPZ2 |
| C7 | Flood maps | Flood Zone 1. Surface water flooding: medium risk along the dry valley, low elsewhere |

## D. Constraints and hazards search

| Item | Source | Information |
|---|---|---|
| **D1** | MAGIC map | No protected sites within 1 km |
| **D2** | National Heritage List | Hollowmere Farmhouse, across Hollow Lane, is a Grade II listed building. No scheduled monuments within 1 km |
| **D3** | Historic Environment Record | Roman pottery and coins found by ploughing in the field in the 1970s. No excavation recorded |
| **D4** | Historic landfill dataset | “Hollowmere Chalk Pit”: landfill, about 1958 to 1972, household and inert waste. Boundary matches the former pit |
| **D5** | Mining | Outside the coalfield. No other mining recorded, apart from the chalk pit itself |
| **D6** | Radon map | Probability band 3 to 5% |
| **D7** | Bomb risk map | Medium risk for the area |
| **D8** | Utility records | Water main under Hollow Lane. Telecoms cable along Hollow Lane. 11 kV overhead line crossing the field. No gas supply. No records of the farm’s own pipes or drains |

## E. Walkover notes

By a colleague, in late September after a dry month. All areas reached. Photos are numbered E1 to E9.

| Item | Observation |
|---|---|
| E1 | Derelict barns with grey corrugated cement roof sheets. Several broken sheets lying on the ground |
| E2 | Rusty above-ground tank on a concrete base beside the large barn, empty. Dark staining on the concrete and the ground next to it |
| E3 | Small brick building with a sunken concrete trough, about 8 m long, beside the large barn. Pipe from one end disappears into the ground |
| E4 | North-west corner: a shallow hollow about 50 m across. Patchy crop. Pieces of brick, glass and plastic at the surface |
| E5 | Dry valley: a small round hollow in the field, about 3 m across and 0.5 m deep, with no obvious cause |
| E6 | Large badger sett with spoil heaps in the hedgerow along the northern boundary |
| E7 | Overhead line on wooden poles crossing the field |
| E8 | Farm well in the yard, covered with rotten timber boards |
| E9 | Hollow Lane is 3.2 m wide between hedges. Field gate 4 m wide. Ground firm and dry |

**E10. A conversation over the gate**

The farmer's son, who grew up on the farm, said: "The council used the old pit as a tip in the sixties. We dipped the sheep in that trough by the barn until the early eighties. And the bottom corner by the valley floods in really heavy rain."