3.12 ECOLOGY

The Site has been assessed to ascertain its ecological value and to ensure that it can be developed without unacceptable ecological impacts. A more detailed ecological assessment can be found within the Environmental Statement.

Ecological Context

There are no statutory nature conservation designations present on or immediately adjacent to the Site. Furthermore, there are no nature conservation designations of international importance (e.g. Special Protection Areas (SPAs), Special Areas of Conservation (SACs) or Ramsar Sites) within 20km of the Site.

Two Sites of Special Scientific Interest (SSSI) and a single Local Nature Reserve (LNR) are present within 3km of the Site. In addition, three non-statutory Local Wildlife Sites (LWSs) are present within 2km of the Site. These designations are listed in the table below:

Site name & Designation	Distance & Bearing	Geographic Level of Importance
How Park Wood SSSI	1.2km north	National
Oxley Mead SSSI	2.0km north	National
Blue Lagoon LNR	2.4km east	Local*
Railway sidings east of Salden Wood LWS (Ref: 83F08)	Adjacent to the Site, south west	County
Broadway and Thrift Wood LWS (Ref: 83B16)	0.1km west	County
Salden Wood LWS	1.1km south west	County

**LNRs are designated for their recreational interest in respect of nature conservation, but vary in the inherent ecological importance.*

It has been found that the proposed development will bring about no likely significant effects to any of the designations listed above.

Habitats

The Site is dominated by farmland of limited ecological interest. Areas of greater importance are present to field boundaries, including hedgerows and remnant woodland habitats. The scheme has sought to retain the vast majority of these habitats of greater interest.

Birds

Habitats at the Site provide a range of opportunities for farmland, woodland and garden bird species, although intensive cultivation is likely to limit the number of ground nesting birds breeding within arable areas.

Reptiles

The majority of the Site provides very limited opportunities for reptiles, being heavily managed/cultivated farmland. However, field margins, scrub habitats and hedgerows do provide a limited quantum of suitable habitat for widespread reptile species to forage, bask, seek refuge and hibernate.

Amphibians

The Site is dominated by arable habitats of interest only to dispersing and resting amphibians, and principally only where a crop or rank vegetation is present. Field boundary hedgerows, wooded habitats and some areas of longer grassland provide greater opportunities for amphibians to disperse along, seek refuge, forage and hibernate.

With respect to breeding opportunities, the Site includes a total of four ponds, all to the north of the Site, with none south of Weasel Lane. Ponds are also present off-site within 500m at Tattenhoe County Park, east of Chepstow Drive Local Park (a single large pond), south beyond the derelict railway corridor, and east within further arable landscape, which could support breeding amphibian populations.

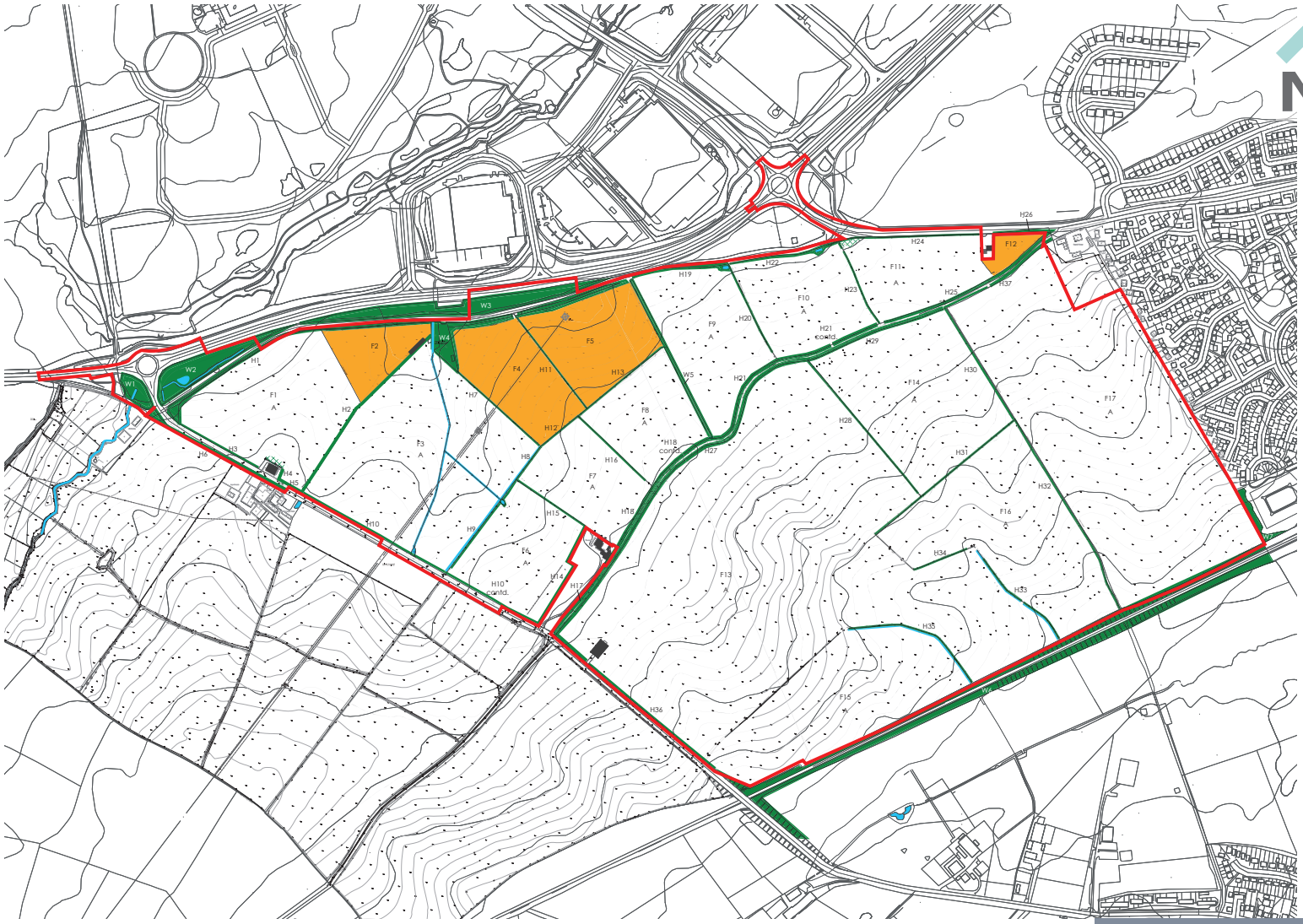

Figure 3.11: Habitats Plan

Site Boundary

Fn — Semi-improved grassland (with field no.)

Fn — Arable field (with field no.)

Wn — Woodland (with woodland no.)

Hn — Hedgerow (with hedge no.)

Pond

Watercourse/ditch

Building

3.13 GEOLOGY, HYDROLOGY AND FLOOD RISK

The Site is part of the Newton Longville Claylands, and is principally chalky till with slowly permeable calcareous, clayey soils with occasional outcrops of permeable non-calcareous clayey soils.

The Site is crossed with drainage ditches that imitate the gentle sloping topography (see Figure 3.12). Accordingly, two catchment areas are delineated, one draining to the north via a pair of Loughton Brook tributaries, and one to the south of Weasel Lane where a series of ditches along the dropping land mediate flow towards the railway line.

A Flood Risk Assessment has been carried out for the proposed development. In terms of fluvial flooding, the majority of the Site lies within Flood Zone 1; that is an area of low probability of flooding. A very small part of the north western corner of the Site is crossed by an area of fluvial flooding, near to the Bottledump Roundabout.

There is a relatively small amount of surface water flooding found on Site, which will be managed through the provision of attenuation basins on the Site.

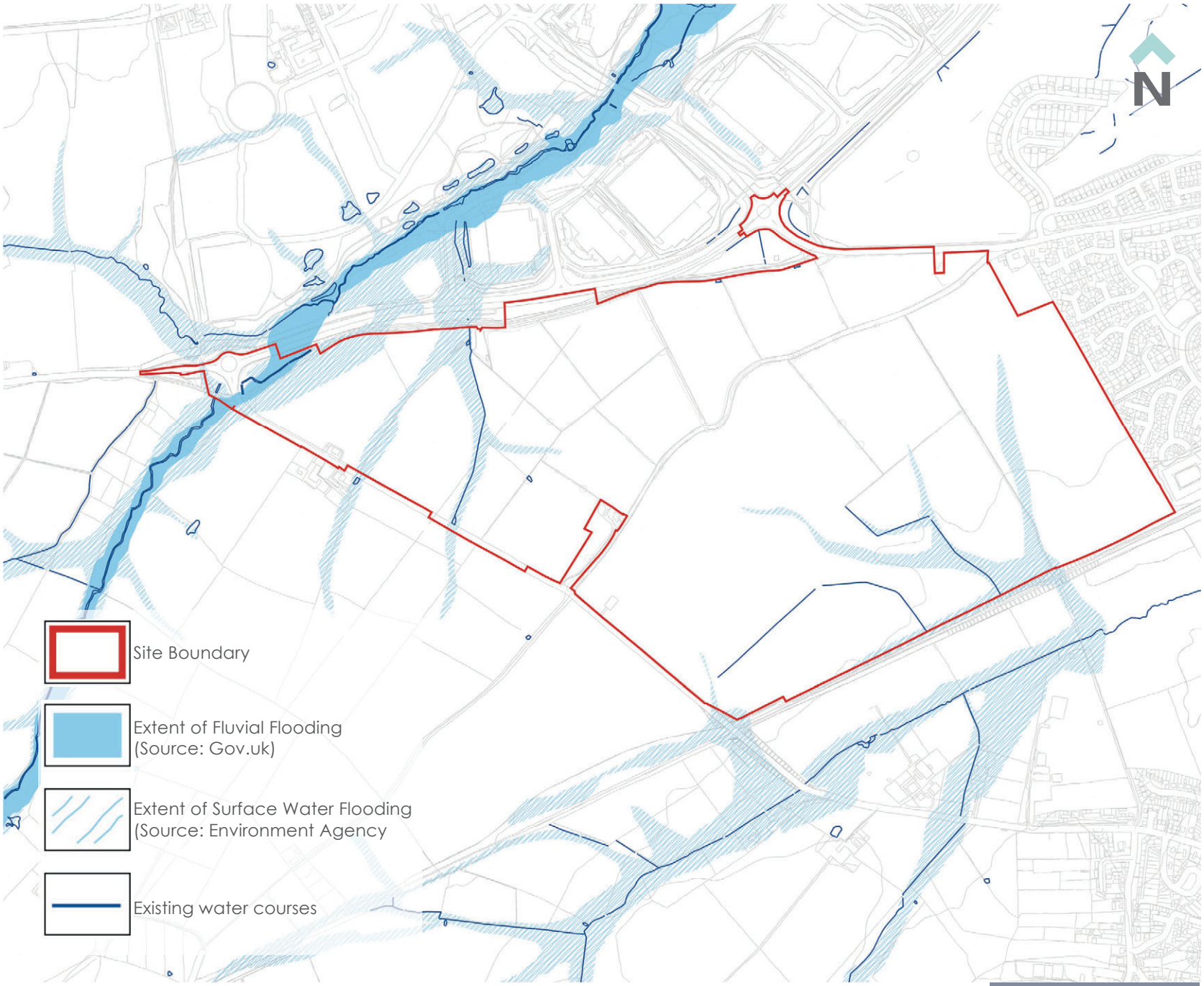

Figure 3.12: Flood Map

3.14 UTILITY SEARCHES

Utilities searches have identified three utility services crossing the Site:

- High-voltage overhead power line – Running in a south west to north east direction, a high-voltage power line crosses the north western part of the Site, ending approximately midway along the northern boundary.
- Low-voltage overhead power lines – There are several sections of low-voltage overhead power lines which cross the Site in the eastern/north eastern part of the Site.
- Oil pipelines – A pair of existing high pressure oil pipelines run north-south through the centre of the Site. The oil pipelines have been safeguarded within a minimum 3.2m easement on either side, ensuring that no groundworks (i.e. tree planting, SuDS features), will impede them. Furthermore, the easement is contained within a larger green corridor within the southern part of the Site (approximately 30m wide) to ensure no built development will impede the oil pipelines.

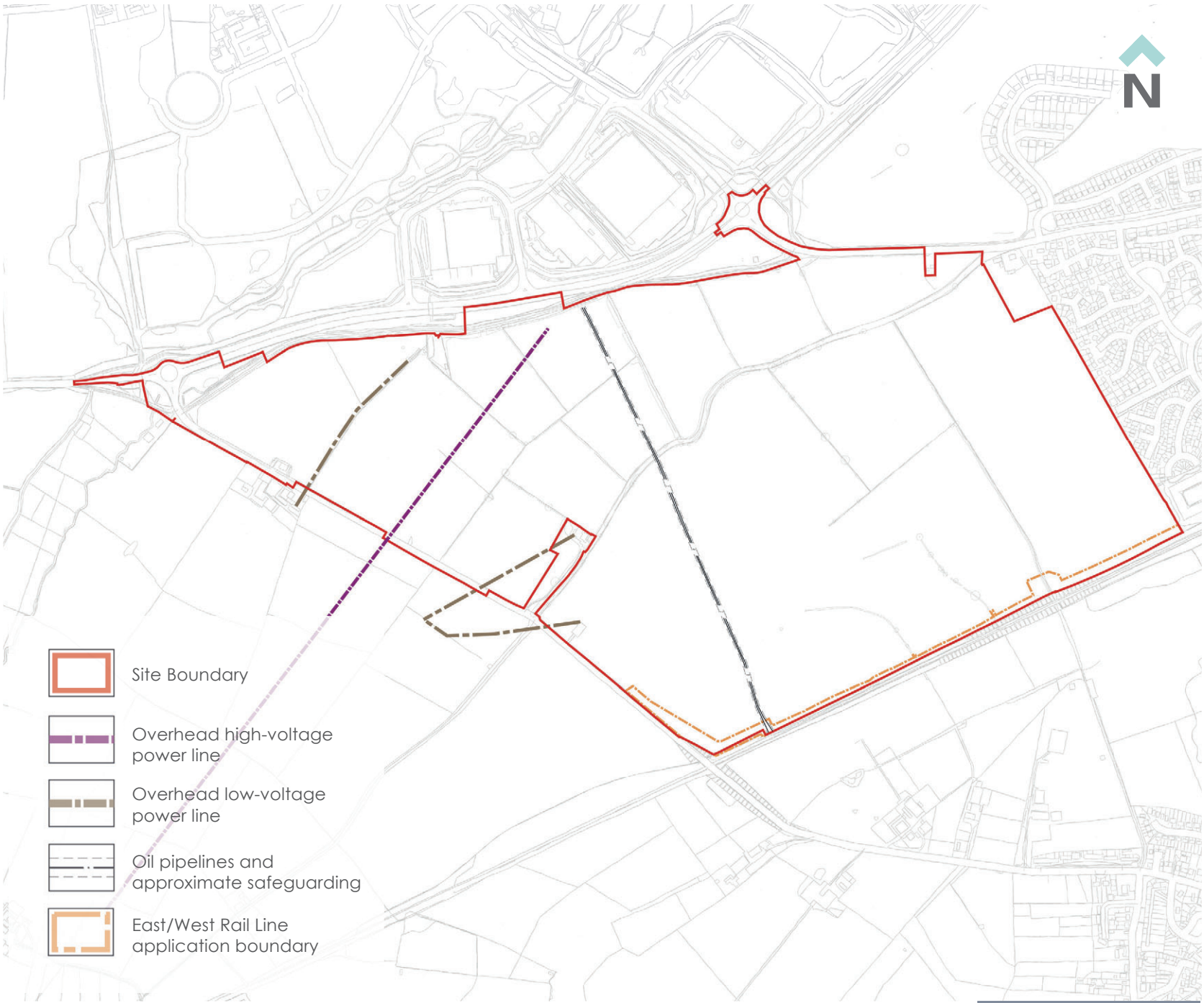

Figure 3.13: Utilities Plan