

Technical Note

Project: Watling Street

Subject: Technical Review - Sequential Assessment

Client:	St Modwen Logistics	Version:	P2
Project No:	07954	Author:	PR
Date:	18/03/2024	Approved:	AC

I Introduction

1.1.1 PJA have been commissioned by St Modwen Logistics to undertake a quantitative assessment of the potential existing flood risk with regard to a proposed commercial development located at Watling Street, Cannock, hereafter referred to as ‘the Site:’

2 Sequential Assessment of the Site

2.1 Sequential and Exception Test Requirements

National Policy and Guidance

2.1.1 Paragraph 162 of the NPPF (September 2023) states “*The aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. The strategic flood risk assessment will provide the basis for applying this test. The sequential approach should be used in areas known to be at risk now or in the future from any form of flooding*”.

2.1.2 The PPG sets out the requirement for the Sequential and Exception Tests when proposing new development in an area at risk of flooding. The Sequential Test aims to promote development in areas of low flood risk. The Exception Test is used where development cannot be located in an area with a suitably low risk of flooding.

Local Policy and Guidance

2.1.3 Paragraph 166 of the NPPF (September 2023) States “*Where planning applications come forward on sites allocated in the development plan through the sequential test, applicants need not apply the sequential test again. However, the exception test may need to be reapplied if*

relevant aspects of the proposal had not been considered when the test was applied at the planmaking stage, or if more recent information about existing or potential flood risk should be taken into account”.

2.1.4 From review of the evidence supporting the emerging Cannock Chase Local Plan, it is understood no Sequential Test has been undertaken to support the proposed allocations.

2.1.5 As such, a sequential approach has been taken to the Site and the associated proposed development.

Flood Risk Vulnerability and Flood Zone Incompatibility

2.1.6 Annex 3 of the NPPF, reprinted in Table 1 summaries the flood risk vulnerability classification for different types of development, whereby it is identified that the proposed industrial development at the Site is classified as *Less Vulnerable* development.

Table 1: Vulnerability Classification (Annex 3 NPPF Extract)

Class	Description
Less vulnerable	<ul style="list-style-type: none"> • Police, ambulance and fire stations which are not required to be operational during flooding. • Buildings used for shops; financial, professional and other services; restaurants, cafes and hot food takeaways; offices; general industry, storage and distribution; non-residential institutions not included in the ‘more vulnerable’ class; and assembly and leisure. • Land and buildings used for agriculture and forestry. • Waste treatment (except landfill* and hazardous waste facilities). • Minerals working and processing (except for sand and gravel working). • Water treatment works which do not need to remain operational during times of flood. • Sewage treatment works, if adequate measures to control pollution and manage sewage during flooding events are in place. • Car parks
<p><i>Source: Table 2, NPPF Planning Practice Guidance, Reference ID: 7-066-20140306</i></p>	

2.1.7 An extract of PPG Table 2 is provided in Table 2 which identifies that *less vulnerable* development is appropriate within Flood Zone 1.

Table 2: Flood Risk Vulnerability and Flood Zone ‘Incompatibility’ (Flood Risk & Coastal Change PPG Table 2)

	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a	Exception Test required †	X	Exception Test required	✓	✓
Zone 3b	Exception Test required*	X	X	X	✓*

Key

✓ Exception Test is not required

X Development should not be permitted

“†” In Flood Zone 3a essential infrastructure should be designed and constructed to remain operational and safe in times of flood.

“*” In Flood Zone 3b (functional floodplain) essential infrastructure that has passed the Exception Test, and water-compatible uses, should be designed and constructed to:

- remain operational and safe for users in times of flood;
- result in no net loss of floodplain storage;
- not impede water flows and not increase flood risk elsewhere.

2.2 Site Specific Sequential Assessment of Flood Risk

2.2.1 Table 3 provides a breakdown of the percentage of each flood risk type that the Site is publicly identified to be at risk from.

Table 3: Sequential Approach Risk Rating

Flood Risk	% Site at Risk	% Proposed Built Development Area at Risk	Site Specific Assessment
Fluvial	0%	0%	The Site is identified to lie entirely within Flood Zone 1
Tidal	0%	0%	The Site is not located in an area of tidal flood risk.
Surface Water	1 in 1000- 7.94% 1 in 100- 3.74% 1 in 30- 2.75%	1 in 1000- 3.48% 1 in 100- 0.35% 1 in 30- 0.12%	<p>Although 7.94% of the Site has been identified to be at risk of surface water flooding in the 1 in 1000-year event extent, this reduces to 3.74% in the 1 in 100-year event and 2.75% in the 1 in 30 year event.</p> <p>In addition, less than 3.5% of the proposed built development area is at risk of surface water flooding in the 1 in 1000-year event extent, which reduces to 0.38% in the 1 in 100-year event and 0.12% in the 1 in 30 year event.</p> <p>Finally, it is proposed to expand the existing pond to the east to provide attenuation for the proposed built development area. This existing</p>

Flood Risk	% Site at Risk	% Proposed Built Development Area at Risk	Site Specific Assessment
			<p>pond is identified to be at 75% risk of surface water flooding in the 1 in 1000-year event extent, which reduces to 43% in the 1 in 100-year event and 30% in the 1 in 30 year event.</p>
Groundwater	To be confirmed	To be confirmed	<p>Several BGS boreholes have been identified immediately south of the Site. Twelve boreholes were dug to 1.4-2.1m below ground level (bgl), all of which did not encounter groundwater.</p> <p>BGS borehole SK00NW224, approximately 0.5km north of the Site was dug to 19mbgl and encountered groundwater at 6.9mbgl.</p> <p>Given this, Site specific groundwater monitoring is recommended to determine the risk of groundwater flooding.</p>
Sewer	To be confirmed	To be confirmed	Subject to asset mapping.
Reservoir	0%	0%	The Site is not identified to be at risk from reservoir flooding.
Canal	Low	Low	<p>Cannock Extension Canal is located immediately west of the Site. The majority of the Site is higher topographically than the canal and therefore, not at risk of flooding in the event of a breach.</p> <p>The southwestern corner of the Site sits at the same level topographically as the bed of the canal with the banks of the canal higher than the surrounding area. As such, in the event of a breach, the southwestern corner of the Site may be at risk of canal flooding.</p>

3 **Limitations**

3.1 **Limitations**

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