

FLOOD RISK ASSESSMENT

Proposed Dwelling

Land to the rear of 18 Clifford Road, Skegness, PE25 2DP



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DOCUMENT HISTORY

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Andrew Clover Planning and Design Ltd
T: 01507 307485
mail@andrewcloverplanninganddesign.co.uk

Andrew Clover Planning And Design Ltd is registered in England and Wales. Company Registration No: 13674950.
VAT Number: 392355773. Registered Office: 1 Jacklin Drive, Saltfleet, Lincolnshire, LN11 7UJ

1 INTRODUCTION

- 1.1 This Flood Risk Assessment (FRA) accompanies a planning application to erect a dwelling on a former commercial yard off Clifford Way, Skegness.
- 1.2 The objective of this FRA is to identify, appraise, manage, and reduce the flood risk to life and property at the proposed site and has been produced in accordance with the requirements set out in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance.

2 THE SITE & SURROUNDINGS

- 2.1 The site is located on the eastern side of Clifford Road, to the rear of No.16 & 18, close to the centre of Skegness (Figures 1 & 2). The Ordnance Survey grid reference for the centre of the site is TF 55827 63875.
- 2.2 The site is accessed via a track between No.18 and No.20 Clifford Road. It has been used for several commercial purposes over time and most recently has been used as a builder's yard. One of the adjoining dwellings has a right of access to a garage located in the southwestern corner. The whole of the site is finished in road planings apart from a small section which is the concrete base to a former building.

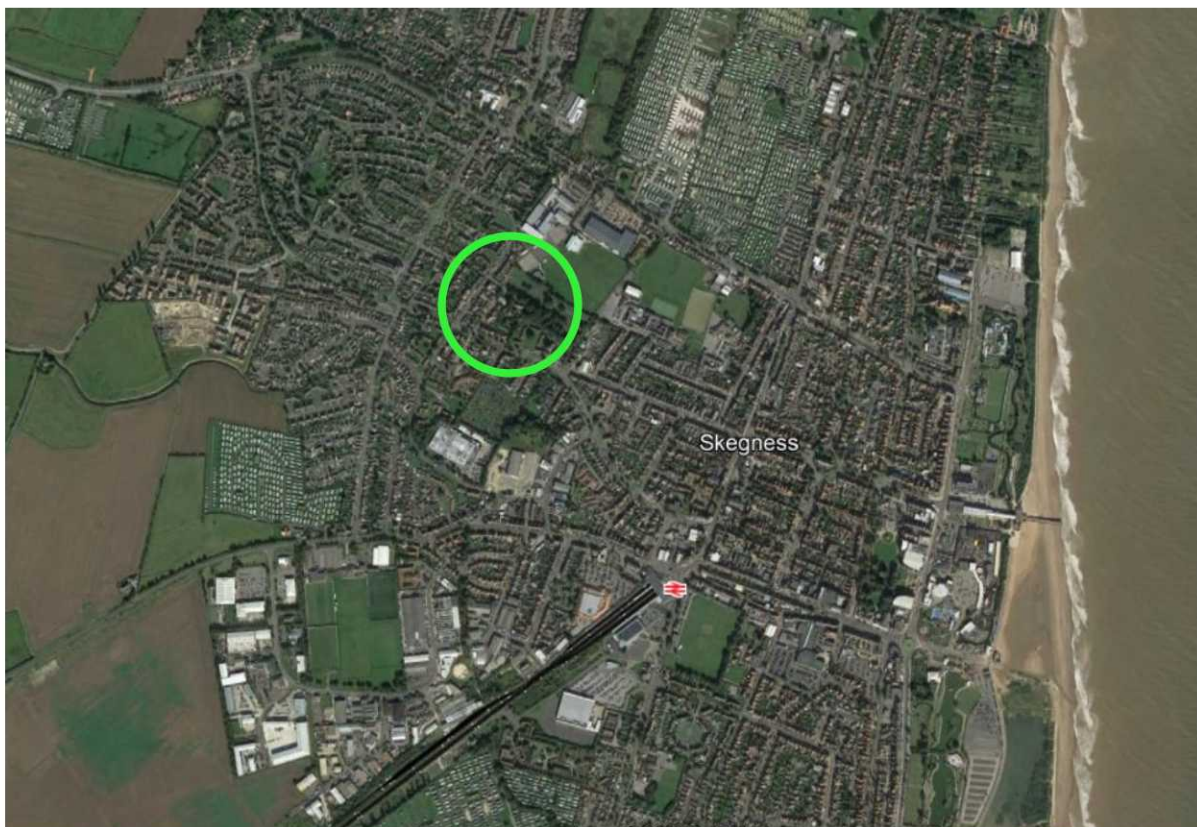


Figure 1: Aerial photograph showing the location of the site.

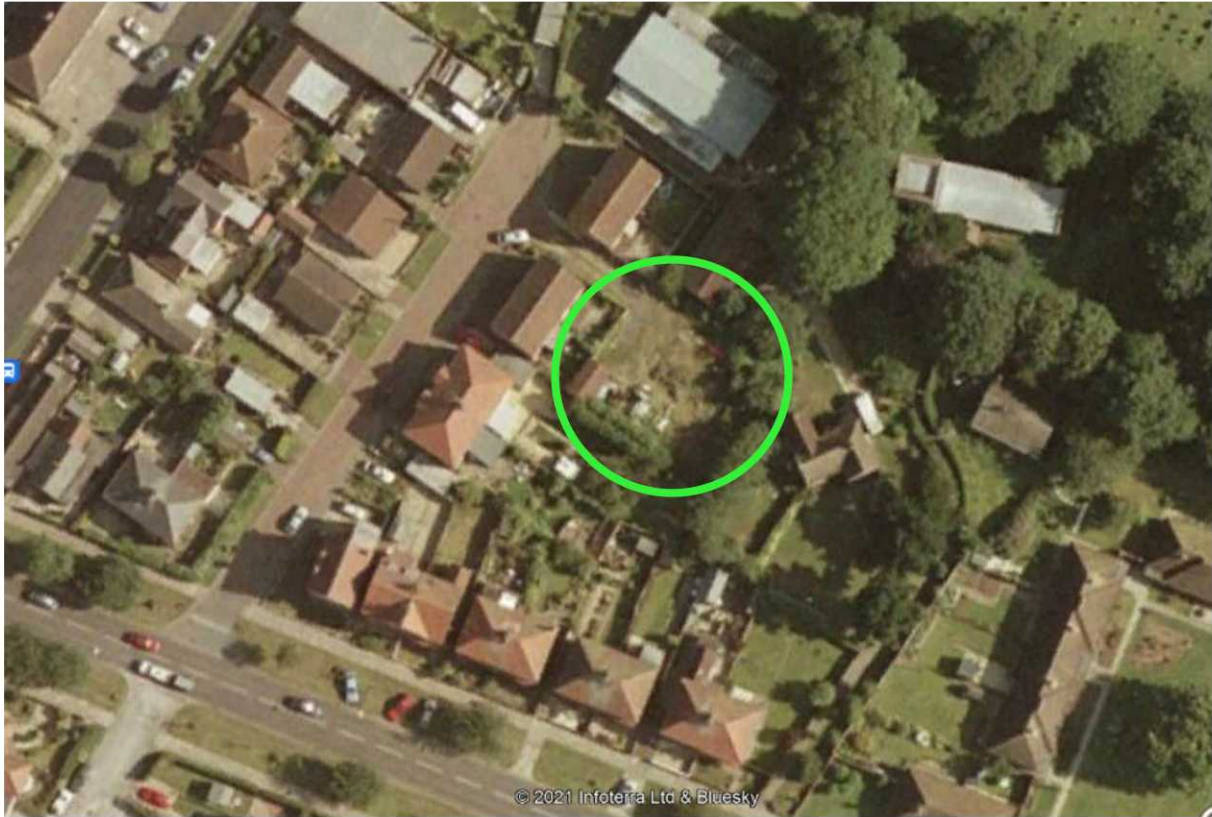


Figure 2: Aerial photograph showing the proposed site in more detail.



Figure 3: Photograph from within the existing site.

- 2.3 The site is in a predominantly residential area with dwellings to the south, east and west. St Clements Church and a Church Hall are located to the north.

3 THE PROPOSAL

- 3.1 The proposal is to redevelop the site to provide a two-storey dwelling which has been specifically designed for the site and to mitigate against flood risk. The existing access will be utilised and the right of access to the existing garage will be maintained.

4 FLOOD RISK PLANNING POLICY

- 4.1 The NPPF sets out the Governments national policies on different aspects of land use planning and in relation to flood risk. The NPPF is also supported by web-based Planning Practice Guidance (PPG)
- 4.2 The PPG uses Flood Zones to characterise flood risk, and these refer to the probability of river and sea flooding, ignoring the presence of defences. They are shown on the Environment Agency’s Flood Map and are as indicated in the Table 1 (below). As can be seen in Figure 4, the application site is located within Flood Zone 3a.

TABLE 1: FLOOD ZONES

Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as ‘clear’ on the Flood Map – all land outside Zones 2 & 3)
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. (Land shown in light blue on the Flood Map)
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding. (Land shown in dark blue on the Flood Map)
Zone 3b The Functional Floodplain	This zone comprises land where water has to flow or be stored in times of flood. Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

- 4.3 The NPPF requires the application of a Sequential Test to steer new development to areas with the lowest probability of flooding. The Flood Zones provide the basis for applying the test.

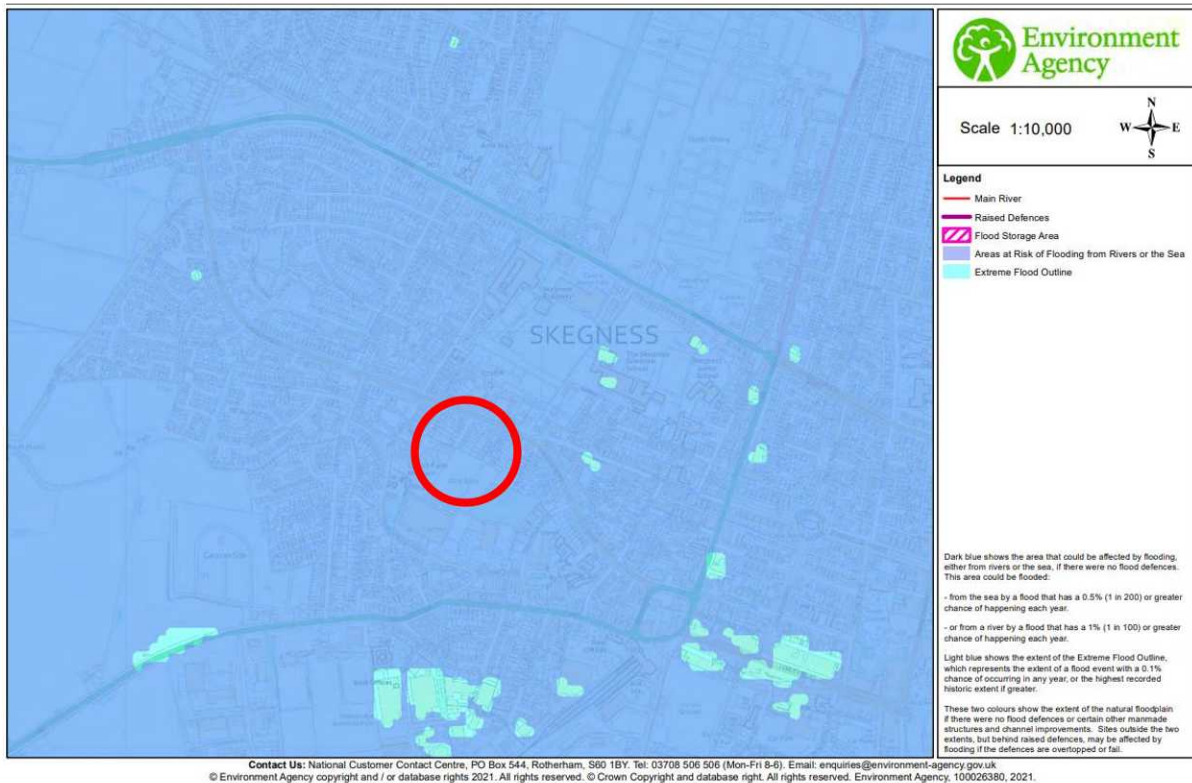


Figure 4: Environment Agency flood map with the site highlighted.

- 4.4 The aim is to steer new development to Flood Zone 1 (areas with a low probability of river or sea flooding). Where there are no reasonably available sites in Flood Zone 1, local planning authorities in their decision making should take into account the flood risk vulnerability of land uses (as shown in Table 2, page 7) and consider reasonably available sites in Flood Zone 2 (areas with a medium probability of river or sea flooding), applying the Exception Test if required. Only where there are no reasonably available sites in Flood Zones 1 or 2 should the suitability of sites in Flood Zone 3 (areas with a high probability of river or sea flooding) be considered, taking into account the flood risk vulnerability of land uses and applying the Exception Test if required.
- 4.5 As the proposed scheme involves the redevelopment of a brownfield site within the developed footprint of Skegness it is considered that a sequential study of alternative sites should only be carried out within the town itself. Considering undeveloped land, particularly greenfield sites, is not applicable in this case as the redevelopment of brownfield or previously developed land should be considered first. Almost all the town, and certainly any available brownfield sites, are within Flood Zone 3. As such there are no other alternative sites within Skegness which are at a lower risk of flooding.
- 4.6 In addition, it should be noted that the 2018 Local Plan supports some housing in Coastal settlements and in the accompanying text to Policy SP18 (Coastal Housing) states that:

10.15. The Council understands that sites which have served a useful purpose can become run down, empty and cause blight to a neighbourhood. Whilst the Council would always encourage and support the reuse of land in the Coast for employment, leisure or tourism uses and if in an appropriate location, retail, this is not always possible. The Council will therefore support open market housing on such sites in the towns, large and medium villages.

4.7 Based on the vulnerability of a development the PPG states what Flood Zone(s) the development is appropriate in. This is demonstrated by Table 3 (below). This Table confirms that the proposed dwellings, classified as 'more vulnerable' in Table 2, are appropriate within Flood Zone 3 but is subject to the Exception Test.

TABLE 2: FLOOD RISK VULNERABILITY CLASSIFICATION	
Essential infrastructure	<ul style="list-style-type: none"> • Transport infrastructure • Essential utility infrastructure • Wind turbines.
Highly vulnerable	<ul style="list-style-type: none"> • Emergency Service which are required in times of flood • Basement Dwellings • Mobile Home parks • Installations requiring hazardous substances consent
More vulnerable	<ul style="list-style-type: none"> • Hospitals • Residential institutions (i.e., care homes, hostels, prisons) • Buildings used for dwelling houses, student halls of residence, drinking establishments, nightclubs, and hotels • Non-residential uses for health services, nurseries, and educational establishments • Landfill and hazardous waste management facilities • Site used for holiday short-let caravans and camping
Less vulnerable	<ul style="list-style-type: none"> • Emergency services which are not required to be operational during flooding • Buildings used for commercial establishments (i.e., shops, restaurants) • Land and buildings used for agriculture and forestry

TABLE 3: FLOOD RISK VULNERABILITY AND FLOOD ZONE 'COMPATIBILITY'					
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a	Exception Test required	✗	Exception Test required	✓	✓
Zone 3b	Exception Test required	✗	✗	✗	✓*
KEY: ✓ Development is appropriate ✗ Development should not be permitted					

4.8 The NPPF states that for this Test to be passed it should be demonstrated that:

a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and
b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

4.8 Recent planning permissions, such as S/153/00809/20 for the erection of 6 no. dwellings on a part brownfield and part residential site off Beacon Way (Skegness), have shown that developments such as this can satisfy the Exception Test.

4.9 Although the officer report for S/153/00809/20 does not discuss it, a method to demonstrate if a proposal meets the first criterion of the Exception Test is the Sustainability Appraisal found at Annex 2 of the Local Plan. The following assessment shows how the development meets the objectives of the Appraisal:

1. The biodiversity of the site is poor and there is nothing to protect. Development of the site will introduce gardens and landscaping and will therefore provide an enhancement in terms of plants and animals.
2. The site is not within a conservation area or an area with a distinctive character. It is poor in quality and has a negative effect on the character of the area and particularly on the neighbouring dwellings and listed church. The bespoke, high-quality design will lead to an enhancement of the character of the area.
3. The proposal will redevelop an urban brownfield site and will therefore reduce the impact on the natural environment.
4. The site is in an area at risk of flooding and cannot be avoided. However, the proposal has been specifically designed to mitigate against flooding and would not increase the risk of flooding elsewhere.
5. Redevelopment of the site will introduce additional residents into the area and will therefore support facilities in the town.
6. The site is brownfield and will therefore minimise the loss of the best agricultural land and greenfield sites.
7. The site is within the developed extent of the town and within walking distance of a significant number of facilities and employment opportunities. Bus services regularly operate in the town and there is also a train station. The site therefore represents a sustainable location.
8. The Local Authority operates a household recycling scheme, and the proposal has adequate space for these bins.
9. The design creates a small and safe community.
10. The development provides housing which should be attainable for most and will add to the housing mix in the town.

11. Sustainable design features can be incorporated into the design subject to viability i.e., there are large areas of south facing roof which could be utilised for photovoltaic panels.
12. Although the scheme does not include facilities the fact that it is close to the town centre will encourage walking and cycling.
13. The proposed site is in a sustainable location and therefore reliance on the private motor vehicle would be minimised. The dwelling will also incorporate efficient technologies such as a heat pump, low water use fittings, high performance insulations etc.

4.10 The proposal clearly relates well to the Scoping Report objectives previously used by the Council to assess schemes for the Exceptions Test. Collectively, the social, economic, and environmental benefits of the development weigh in favour of the proposal and ultimately demonstrates that the first part of the Test has been passed.

4.11 In relation to the second criterion, this site-specific FRA has been produced to ensure that the development is safe and will not increase risk elsewhere.

4.12 Overall the proposal satisfies the requirements of the Sequential and Exception Tests.

5 HISTORIC FLOODING

5.1 The Environment Agency have advised that they do not have any records of flooding around the application site, including from the 1953 east coast floods (Figure 5).

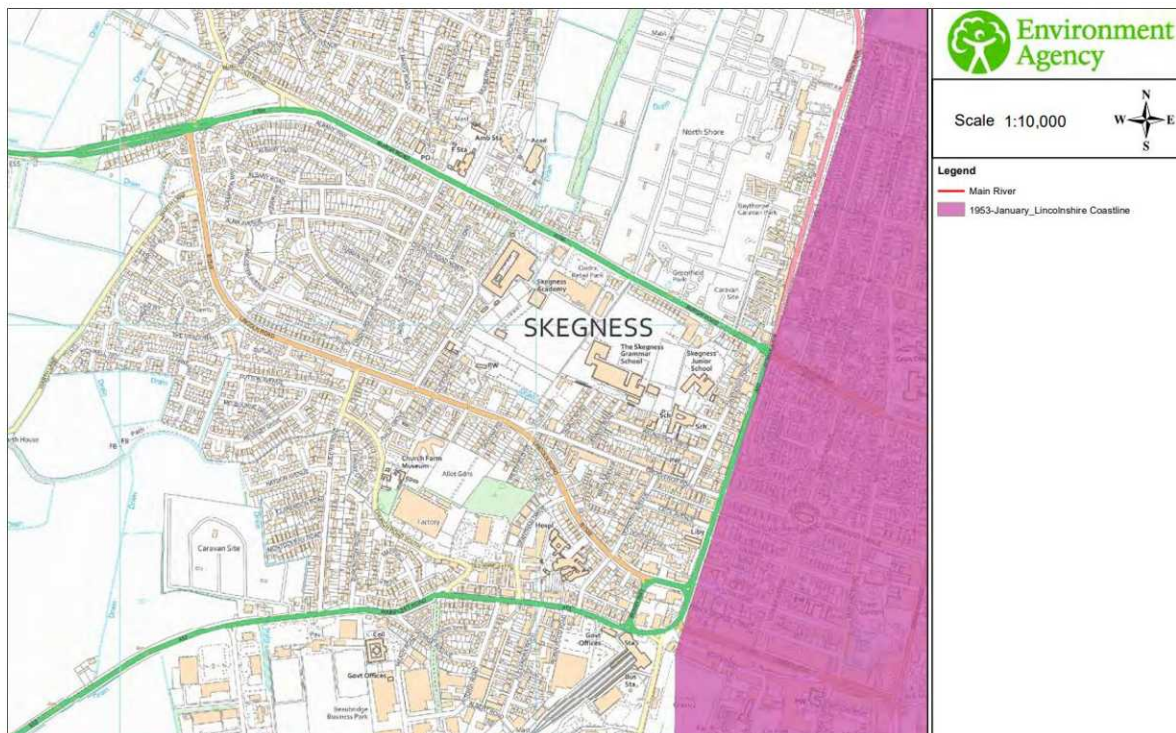


Figure 5: Environment Agency historic flood map.

6 FLOOD RISK SOURCES

- 6.1 The following sources of flood risk have been identified. Where mitigation is required to reduce the risk from flooding this is discussed in Section 7.

FLUVIAL

- 6.2 The Environment Agency confirmed in their letter (Appendix A) dated 14/12/2021 that the site is not considered to be at risk of flooding from main rivers.
- 6.3 The nearest ordinary watercourse is the Lindsey Marsh Drainage Board maintained Main Drain over 1km to the southwest. The Board have confirmed that they have no records of this watercourse flooding. The risk from this source is low due to the topography of the area and the network of roads, drains, dykes etc. which lie in the intervening area.

TIDAL

- 6.4 The North Sea is over 1.3km to the east. The coastline in this area is mainly protected from flooding by earth embankments and concrete floodwalls supplemented by a programme of beach nourishment. The Environment Agency have confirmed that these defences are in good condition and provide protection against a flood with a 0.5% chance of occurring: a 1 in 200-year chance. Whilst these defences protect the site a residual risk that they may be breached or overtopped remains.
- 6.5 In both the 0.5% (1 in 200) and 0.1% (1 in 1000) breach scenarios for the year 2115 the site is shown to be affected by flooding to a depth of between 1.0 and 1.6m.

SURFACE WATER

- 6.6 The Flood Map for Planning shows that the site is at 'very low' risk of surface water flooding. 'Very low' risk means that each year this area has a chance of flooding of less than 0.1%.

OTHERS

- 6.7 The Flood Map for Planning shows that the site is not at risk of reservoir flooding.

7 MITIGATION

- 7.1 The previous section has identified the sources of flooding which could potentially pose a risk to the site and the proposed dwellings. This section of the FRA sets out the mitigation measures which are to be incorporated within the proposed development to address and reduce the risk of flooding to within acceptable levels.

- 7.2 As the proposed dwelling is two storeys, it has been designed in accordance with the 0.5% (2115) breach map. As such the internal finished ground floor level has been raised 1.0m above the existing ground level. To provide further protection any ground floor doors or full height windows will be fitted with flood protection barriers. These will have a minimum height of 600mm.
- 7.3 Additional physical measures which will be incorporated into the building include water resisting air bricks, backwater valves and non-return valves. All electrical installations should be located 600mm above finished floor level.
- 7.4 In addition to physical measures it is recommended that the future occupiers of the dwellings sign up to the EA flood warning service.
- 7.5 Foul drainage is to connect to the existing mains system in Clifford Road.

8 CONCLUSIONS

- 8.1 This FRA is compliant with the requirements set out in the NPPF and the associated Planning Practice Guidance. This report demonstrates that subject to the flood mitigation measures being implemented there will be no risk to life or property as part of this development. As the proposal occupies a similar area to the buildings which are being demolished it should also not increase the risk of flooding elsewhere.