

Emsworth Sailing Club, Emsworth

Flood Risk Assessment

Club House Extension

Prepared for

Emsworth Sailing Club

55 Bath Road

Emsworth

Hampshire

PO19 7ES

August 2012

Job No: S128012



Revision	Amendments	Prepared By	Checked	Status	Date
1	First Issue	IJW		Draft	31/08/12

TABLE OF CONTENTS

1.0 Introduction.....	1
1.1 Development Background	1
1.2 Site Location	2
1.3 Environment Agency Indicative Flood Mapping	3
2.0 Flood Risk Vulnerability and Flood Zone Compatibility	3
2.1 Flood Zone Vulnerability	3
2.2 Flood Zone Compatibility	3
3.0 Potential Sources of Flooding	4
3.1 Tidal Flooding	4
4.0 Existing/Proposed Drainage Arrangements	4
4.1 Existing Surface Water Drainage	4
4.2 Proposed Surface Water and Sustainable Drainage (SuDS)	4
5.0 Flood Risk Management Measures	4
5.1 Existing Flood Mitigation Measures	4
5.2 Flood Proofing / Resilience	4
6.0 Off Site Impacts.....	4
7.0 Residual Risks	5
8.0 Conclusion.....	6

FIGURES

Figure 1: Aerial view Emsworth Sailing Club.

Figure 2: Location of the Proposed Development

Figure 3: Environment Agency Indicative Flood Mapping

Figure 4: Table D.3, reproduced from NPPF Technical Guide (March 2012)

1.0 Introduction

1.1 Development Background

Emsworth Sailing Club is located on the northern tip of Chichester Harbour.

Figure 1: Aerial view Emsworth Sailing Club.

Planning Permission is being sought for a minor extension to the club incorporating new changing rooms with a terrace over.

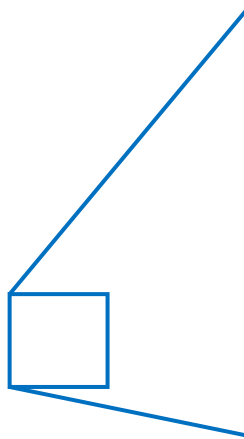
Following the amendment to Article 10 of the Town and Country Planning Order in October 2006, Local Planning Authorities are required to consult the Environment Agency on all applications for development in flood risk areas and for sites in excess of 1ha. This report has therefore been commissioned to identify any flooding issues associated with the development of the site and to set out how these may be mitigated to avoid excessive risk.

This report summarises flood risk and provides details of the proposed flood proofing / resilience and resistance techniques to be incorporated and forms a Flood Risk Assessment in accordance with National Planning Policy Framework Technical Guide March 2012

1.2 Site Location

The site area is bounded by Chichester Harbour on its east, south and west sides. Large residential dwellings are located either side Bath Road running north to south immediately north of the site.

**Figure 2: Location of the Proposed Development
(Site Boundary in Red)**



Flood Zone

1.3 Environment Agency Indicative Flood Mapping

An extract of the Environment Agency's Indicative Flood Map for the site is shown in Figure 2 below. The areas shown in blue are at risk of tidal flooding with a less than 0.5% (1 in 200) chance of occurring (Zone 3) and the areas shown in light blue are at risk of flooding in a major flood with up to a 0.5% to 0.1% chance of occurring (Zone 2). All areas falling outside of Zones 2 & 3 are in Flood Zone 1

The site can be identified from Figure 2 as being located in Flood Zone 1, and therefore at low risk of flooding from tidal or fluvial sources.

The proposals will relocate the holiday units further from Flood Zone 2 than the currently granted planning permission.

Figure 3: Environment Agency Indicative Flood Mapping

Sequential Test

The development is a minor extension to an existing site hence the Sequential Test is not applicable.

2.0 Flood Risk Vulnerability and Flood Zone Compatibility

2.1 Flood Zone Vulnerability

In accordance with 'Table 2: Flood risk vulnerability classification' of NPPF Technical Guide, the proposed development can be classed as "Less Vulnerable/Water Compatible".

2.2 Flood Zone Compatibility

Table 3: Flood risk vulnerability and flood zone 'compatibility' of NPPF Technical Guide (below) shows that 'Less Vulnerable/Water Compatible' development in Flood Zone 3 is appropriate and the Exception Test is not therefore required.

Flood risk Vulnerability classification		Essential infrastructure	Water compatible	Highly Vulnerable	More Vulnerable	Less vulnerable
Flood Zone	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception test required	✓	✓
	Zone 3a	Exception test required	✓	x	Exception test required	✓
	Zone 3b	Exception test required	✓	x	x	x

Figure 4: Table 3, reproduced from NPPF Technical Guide (March 2012)

3.0 Potential Sources of Flooding

3.1 Tidal Flooding

Environment Agency mapping shows the site to lie within flood zone 3, high risk.

4.0 Existing/Proposed Drainage Arrangements

4.1 Existing Surface Water Drainage

The site is thought to currently drain to the adjacent harbour.

4.2 Proposed Surface Water and Sustainable Drainage (SuDS)

It is proposed to connect new drainage required to serve the extension to the existing drainage. The increase in area and hence run off is minor and will have minimal impact on the receiving waters.

5.0 Flood Risk Management Measures

5.1 Existing Flood Mitigation Measures

It is known that the existing site is subject to flooding during high tide / surge conditions and measures are put in place by the sailing club to minimise the effects of this occurrence.

The club puts in place flood mitigation measures when the tide reaches 5.0m, which happens several times per year. At these times when the atmospheric pressure is low (below 1000), and when there is a southerly wind, then the clubhouse is prone to flooding.

The club currently uses flood boards, and there is a sump pump to allow any water that does breach the barrier to be evacuated. The current thinking is that no flood protection is required to the changing room/workshop block or to the new storage shed. In these cases the buildings will be allowed to flood and the water will be allowed to flow out.

The existing and proposed flood mitigation measures are indicated on SK-120824-1 included in Appendix A.

5.2 Flood Proofing / Resilience

The proposed changing room extension will be designed and constructed using flood resilient techniques and materials. It is not proposed to specifically flood proof these works.

Proposals include the following:

- Solid ground floor slab

- Water resilient internal finishes

- Electrical wiring and sockets located above predicted tidal flood level (with climate change)

6.0 Off Site Impacts

The proposed development is minor and of small area such that it is unlikely to impact upon the existing runoff from the site or flood plain area. Adjacent sites are therefore unaffected by the proposed development.

7.0 Residual Risks

As the site already has measures in place to deal with short term flooding experienced due to high tides and storm surges the risk is already known and catered for.

8.0 Conclusion

This report has presented the findings of a Flood Risk Assessment that has been carried out for the proposed changing rooms extension. The assessment has been carried out using the guidelines and criteria as set out in document NPPF.

As the site is located in an area subject to known tidal flooding the sailing club already has flood mitigation and protection measures in place. These and flood resilient construction measures will be incorporated in the proposed works.

The report demonstrates that the proposed development has a minimal impact on flood risk, both within the site and off-site.