

FLOOD RISK ASSESSMENT

Proposed Golf Practice Nets

Waterlooville Golf Club

Cherry Tree Avenue

Cowplain

Waterlooville

PO8 8AP

1. Introduction

This Flood Risk Assessment (FRA) has been prepared in support of a planning application for the installation of golf practice nets adjacent to the existing clubhouse at Waterlooville Golf Club, Cherry Tree Avenue, Cowplain, Waterlooville, PO8 8AP.

The purpose of this assessment is to consider the potential flood risks affecting the proposed development and to demonstrate that the proposal can be implemented without increasing flood risk to the site or surrounding areas.

Part of the wider application site is understood to fall within Flood Zone 3. Accordingly, flood risk has been considered as part of the planning application.

The proposed development is a small-scale recreational facility directly associated with the existing golf club. It does not involve the creation of residential accommodation or other vulnerable accommodation.

The proposal comprises lightweight timber-framed golf practice nets with a relatively small granular base. The development will not create a conventional enclosed building or significant impermeable area.

2. Site and Existing Use

The application site is located at:

Waterlooville Golf Club, Cherry Tree Avenue, Cowplain, Waterlooville, PO8 8AP.

The site forms part of the established Waterlooville Golf Club and is associated with the existing clubhouse and golf course.

The surrounding land is predominantly characterised by the existing golf course, recreational facilities, landscaped areas and associated access and parking.

The proposed practice nets will be located immediately adjacent to the existing clubhouse and will form part of the existing golf club's recreational facilities.

The development is therefore intrinsically linked to the existing use of the site and does not represent the introduction of an unrelated use into the area.

3. Proposed Development

The proposal comprises the installation of golf practice nets with the following specification:

- Nets approximately 6.0m wide;
- Approximately 3.0m high;
- Approximately 5.0m deep;
- 6" x 6" oak timber frame;
- Green netting;
- Internal baffle net to the rear.

The overall base will be approximately:

6.5m wide x 5.5m deep = approximately 35.75m².

The base will comprise:

- 0–40mm scalpings/hardcore;
- Sharp sand layer;
- Artificial grass/astroturf capping;
- 6" x 2" treated timber edging.

The proposal does not include any enclosed building, residential accommodation or significant internal floor area.

The structure will remain substantially open and will therefore not present the same flood-risk characteristics as an enclosed building.

4. Planning Policy and Flood Risk

The National Planning Policy Framework (NPPF) requires planning decisions to take account of flood risk from all sources and to direct development away from areas at the highest risk of flooding where appropriate.

The Environment Agency's Flood Map for Planning identifies areas according to their probability of flooding from rivers and the sea.

The site has been identified as including land within Flood Zone 3 and consequently flood risk has been considered in this assessment.

The assessment also considers other potential sources of flooding, including:

- flooding from rivers;
- flooding from surface water;
- flooding from groundwater;
- flooding from sewers;

- flooding from reservoirs and other artificial sources.

The scale and nature of the proposed development are important considerations when assessing the actual flood risk associated with the proposal.

5. Flood Zone

The Environment Agency's Flood Map for Planning identifies areas of land according to their probability of flooding from rivers and the sea.

Flood Zone 3 represents land having a higher probability of flooding.

The precise extent of Flood Zone 3 in relation to the proposed practice-net base should be read in conjunction with the submitted site location and proposed layout plans.

Where the Flood Zone 3 designation affects only part of the wider site, the location of the proposed practice nets should be considered separately from the wider golf-course land.

The proposed development should be positioned, wherever reasonably practicable, to minimise its exposure to flood risk.

6. Nature and Vulnerability of the Development

The proposed use is a golf practice facility associated with an established golf club.

The proposal:

- does not provide residential accommodation;
- does not provide sleeping accommodation;
- does not introduce a care facility;
- does not create a significant enclosed building;
- does not require permanent occupation;
- consists principally of an open-sided timber frame and netting;
- has a relatively small footprint.

The proposal is therefore inherently less vulnerable to flooding than residential development or other forms of development involving permanent occupation.

The facility will be used for recreational purposes and users will remain associated with the existing golf club.

7. Sequential Approach

The Sequential Test seeks to direct development towards areas at the lowest probability of flooding.

In this case, the proposed development is specifically intended to provide additional golf practice facilities at the existing Waterloo Golf Club.

The location of the proposed nets is directly related to the existing golf course and clubhouse. A golf practice-net facility is therefore intrinsically linked to the existing recreational use of the site.

Relocating the facility to an unrelated site outside the golf club would not provide a comparable facility because its purpose is to serve users of the existing golf course and clubhouse.

The proposed development is also extremely limited in scale and does not involve the creation of a new residential or commercial building.

The proposed location adjacent to the existing clubhouse provides a logical and sustainable location for the facility and avoids unnecessary development elsewhere.

The detailed layout should ensure that the nets are positioned to avoid the highest-risk areas wherever this can reasonably be achieved.

8. Risk of Flooding from Rivers and the Sea

The principal reason for preparing this FRA is the presence of Flood Zone 3 within part of the site.

The proposed development consists of a lightweight timber frame and netting rather than an enclosed structure.

The open nature of the proposal means that the development will not form a substantial barrier to floodwater.

The structure does not comprise a solid wall or enclosed building that would significantly impede flood flows.

The base is also proposed to be formed using granular materials rather than a substantial concrete slab.

Subject to the final detailed design, the proposal will therefore have negligible potential to obstruct the movement of floodwater.

The timber frame will be securely fixed to the ground to prevent displacement during flood conditions.

9. Surface Water Flooding

Surface water flooding can occur when rainfall exceeds the capacity of existing drainage systems or where water is unable to infiltrate into the ground.

The proposed base will cover approximately 35.75m².

The base is proposed to comprise compacted 0–40mm scalpings/hardcore with a sharp sand layer and artificial grass/astroturf finish.

No large concrete slab or extensive impermeable hardstanding is proposed.

The granular construction will allow surface water to continue to drain through the base to the underlying ground, subject to the permeability of the existing ground conditions.

The proposal will therefore result in only a limited change to the existing surface-water drainage characteristics of the site.

The surrounding ground levels will not be altered unnecessarily and the development will not incorporate any bunding or other feature designed to redirect surface water towards neighbouring land.

10. Groundwater Flooding

The proposed development does not include any basement, deep excavation or below-ground accommodation.

The works are limited to the formation of a shallow base and installation of the timber-framed practice nets.

There is therefore considered to be a very low potential for the proposal itself to be adversely affected by groundwater flooding.

11. Sewer Flooding

The proposal does not introduce any new foul-water or surface-water drainage connection.

There will be no toilets, kitchen facilities or other plumbing associated with the practice nets.

Consequently, the proposal will not place additional demands upon the existing public sewerage network.

12. Reservoir and Artificial Sources

The Environment Agency identifies areas potentially at risk from reservoir flooding.

The proposed development is a small-scale recreational facility and does not involve the construction or modification of any reservoir, water-retaining structure or drainage infrastructure.

Any residual risk from artificial sources should be considered through the current Environment Agency mapping at the detailed application stage.

13. Climate Change

Climate change has been taken into consideration as part of this assessment.

Climate change is expected to increase the intensity of extreme rainfall events and may increase the extent and depth of flooding in some locations.

The proposed development is particularly resilient to this risk because:

- there is no residential accommodation;
- there is no enclosed habitable accommodation;
- there is no basement;
- the structure is lightweight and open;
- the development has a very limited footprint;
- there is no significant increase in impermeable surface;
- the proposal does not require substantial alteration to existing ground levels.

The proposed timber frame will be securely fixed to prevent movement or displacement.

14. Floodplain Storage and Flood Flow

The proposed practice nets will not involve substantial filling of the floodplain.

The footprint of the base is approximately 35.75m² and will comprise a shallow granular construction.

No substantial raised platform is proposed.

The development will not introduce a solid structure extending across the site that would materially obstruct flood flows.

The open nature of the netting and timber frame will allow floodwater to pass around the structure.

The proposal will therefore have negligible potential to reduce floodplain storage or increase flood levels elsewhere.

15. Safe Access and Egress

The proposed practice nets will be accessed from the existing golf club and clubhouse area.

The proposal does not create a new residential dwelling or permanent accommodation requiring residents to remain on site during flood conditions.

The facility is associated with an existing recreational use and is expected to be occupied intermittently.

In the event of a flood warning or severe weather event, the golf club can restrict access to the practice nets and temporarily close the facility.

The open nature of the structure also means that users are not entering a vulnerable enclosed building.

The existing access arrangements will remain unchanged.

16. Flood Resilience and Mitigation

The following measures will be incorporated into the development:

1. The practice nets will remain open-sided and will not provide enclosed accommodation.
 2. The base will be formed using granular materials rather than a large concrete slab.
 3. The development will avoid unnecessary alteration of existing ground levels.
 4. The timber frame will be securely anchored to prevent displacement.
 5. No new foul drainage connection is required.
 6. No significant increase in impermeable surface is proposed.
 7. The facility can be closed during periods of significant flood risk or severe weather.
 8. No materials or equipment that could readily be carried by floodwater will be permanently stored within the flood-risk area.
 9. Surface water will continue to drain through/around the proposed base where ground conditions permit.
 10. The proposal will not obstruct existing drainage routes.
-

17. Residual Risk

There will remain a residual risk associated with the site's location within an area identified as having a higher probability of flooding.

However, the residual risk is considered to be low in relation to the proposed use because of the nature and scale of the development.

The proposal does not create a vulnerable enclosed building and will not result in permanent residential occupation.

The structure's open construction and relatively small footprint mean that it will not materially impede flood flows.

The facility can also be temporarily closed where flood warnings indicate that conditions may become unsafe.

18. Overall Flood Risk Assessment

The proposed golf practice nets represent a small-scale addition to the existing Waterlooville Golf Club.

The development comprises an approximately 6.0m x 5.0m open-sided timber-framed practice-net structure, approximately 3.0m high, with an approximately 35.75m² granular base.

The proposal does not involve:

- residential accommodation;

- sleeping accommodation;
- a substantial enclosed building;
- basement development;
- significant excavation;
- significant raising of ground levels;
- a new foul drainage connection; or
- extensive impermeable surfacing.

The proposal will therefore have a very limited effect on the existing flood characteristics of the site.

The open timber and net construction will not materially obstruct flood flows, while the granular base will minimise the creation of impermeable surfacing.

The proposed development can be appropriately managed through the use of suitable fixing arrangements, maintenance of existing drainage routes and temporary closure of the facility during periods of significant flood risk.

19. Conclusion

Having considered the nature and scale of the proposed development, the site's flood-zone designation and the potential sources of flooding, it is considered that the proposed golf practice nets can be accommodated without creating an unacceptable risk to users or increasing flood risk elsewhere.

The development is a small-scale recreational facility directly associated with the existing Waterloo Golf Club. It does not introduce vulnerable residential accommodation and does not involve the construction of a conventional enclosed building.

The proposal will have a limited footprint of approximately 35.75m², with the base constructed from granular materials, and the practice nets themselves will comprise a lightweight timber frame and netting.

Subject to the detailed measures set out within this assessment, including secure fixing of the timber frame, retention of existing drainage routes and appropriate management of the facility during periods of flood risk, the development is considered capable of being made safe and should not materially increase flood risk elsewhere.

The proposal is therefore considered to be acceptable in flood-risk terms, subject to confirmation of the precise Flood Zone classification affecting the proposed net location and any requirements identified by the Local Planning Authority or Environment Agency.