
Flood Risk Assessment

Land off Ashley Coombe, Warminster
Prepared On behalf of Rubix Land Limited

November 2025

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Flood Risk Assessment

Land off Ashley Coombe, Warminster

RL 102-FRA

“Outline planning application for the erection of up to 77 dwellings, public open space, landscaping, sustainable urban drainage system and engineering works, with vehicular access off Ashely Coombe. All matters reserved except for means of access”

Prepared

On behalf of Rubix Land Limited

Reference: RL102-FRA

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1.0 Introduction

- 1.1. This report has been prepared by OG Consulting Engineers on behalf of Rubix Land Limited, in support of the outline application for up to 77 new residential units off Ashley Coombe, Warminster.
- 1.2. The report assesses flood risk associated with the development proposals and outlines a strategy for the disposal of surface water and foul water runoff from the development, following guidance set out in the following local & national planning policy documents:
 - The National Planning Policy Framework (NPPF) & associated Planning Practice Guidance (PPG).
 - Wiltshire Council Drainage and Betterment Strategy (June 2024)

2.0 Site Location and Topography

- 2.1. The development site is located to the south and east of Ashley Coombe, Warminster as shown in Figure 1. A topographical survey has been undertaken by Corner Point Surveys Ltd and is included in Appendix A.



Figure 1: Site Location

- 2.2. The site is centred on Ordnance Survey grid ST 86965 43796 and co-ordinates X: 386965, Y: 143796.
- 2.3. The site is bordered by residential development to the west and north, farmland to the south and a Wessex Water wastewater treatment plant to the east. The site is greenfield, currently used for agriculture.

- 2.4. The site is sloping, falling from between 1 in 15 and 1 in 10 towards the north and east of the site.

3.0 Existing Ground Conditions

- 3.1. A review of British Geological Survey (BGS) data suggests that the site is underlain by Boyne Hollow Chert Member comprised of Sandstone Sedimentary bedrock.

4.0 Existing Drainage Characteristics

- 4.1. The existing site is made up of an arable field and as such is not positively drained.

5.0 Proposed Scheme

- 5.1. The proposed development comprises of up to 77 plots with public open space, landscaping, sustainable urban drainage system and engineering works. A new carriageway linking all the properties will be constructed with access from Ashley Coombe.
- 5.2. The proposed site layout is included in Appendix B.

6.0 Flood Risk Planning policy and Guidance

National Planning Policy Framework (NPPF)

- 6.1. At a national level, the NPPF and the Planning Practice Guidance (PPG) to the NPPF seek to ensure flood risk is considered at all stages of the planning process, to avoid inappropriate development in areas at risk of flooding and to direct development towards areas at lowest flood risk. The NPPF retains a risk-based approach to the planning process and uses the Flood Zones as the basis for applying the sequential test, as well as flood risk vulnerability classifications, which define the type of development that is considered appropriate within each zone. It advises local planning authorities to demonstrate that there are no reasonably available sites in areas with a lower probability of flooding that would be appropriate to the type of development or land use proposed.
- 6.2. The NPPF establishes the Flood Zones as the starting point for assessment with the overarching aim to steer new development to areas with the lowest probability of flooding. Flood Zone maps are available on the GOV.UK website and the definitions of the Flood Zones extracted from the PPG are described below:
- Flood Zone 1 – Low probability. This zone comprises land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%).
 - Flood Zone 2 – Medium probability. This zone comprises land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% - 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% - 0.1%) in any year.
 - Flood Zone 3a – High probability. This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year.

- Flood Zone 3b – The functional floodplain. This zone comprises land where water has to flow or be stored in times of flood. Typically, land which would flood with an annual probability of 1 in 20 (0.5%) or greater in any year, or is designed to flood in an extreme (0.1%) flood.
- 6.3. In areas at risk of river flooding, the NPPF advises that preference be given to new development in Flood Zone 1. If there are no reasonably available sites in Flood Zone 1, the flood vulnerability of the development can be considered in locating development in Flood Zone 2 and then Flood Zone 3. Within each flood zone new development should be directed to sites at the lowest probability of flooding from all sources.
- 6.4. The NPPF advises that when determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment with development only to be allowed in areas at risk of flooding where, in the light of the assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:
 - Within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;
 - The development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;
 - It incorporates Sustainable Drainage Systems (SuDS), unless there is clear evidence that this would be inappropriate;
 - Any residual risk can be safely managed; and
 - Safe access and escape routes are included where appropriate, as part of an agreed emergency plan.
- 6.5. The PPG advises that the objectives of a site-specific flood risk assessment are to establish:
 - Whether a proposed development is likely to be affected by current or future flooding from any source
 - Whether it will increase flood risk elsewhere;
 - Whether the measures proposed to deal with these effects and risks are appropriate
 - The evidence for the local planning authority to apply (if necessary) the Sequential Test
 - Whether the development will be safe and pass the Exception Test, if applicable.

7.0 Sources of Flooding

Fluvial Flooding

- 7.1. The EA's Flood Map for Planning (Rivers and Sea) shows the extent of flood zones and a flood zone map downloaded from the GOV.UK website is shown in Figure 2 below. It evaluates risk as the product of the probability and the consequence of particular events. The EA flood map provides a broad scale assessment of flood risk for a geographical area. It evaluates risk as the product of the probability and the consequence of particular events. Probability is defined as the frequency and magnitude of floods that are generated by fluvial or tidal flows and intense rainfall activity. The consequence is defined as the impact of floodwater on receptors (people, property, land, etc.).

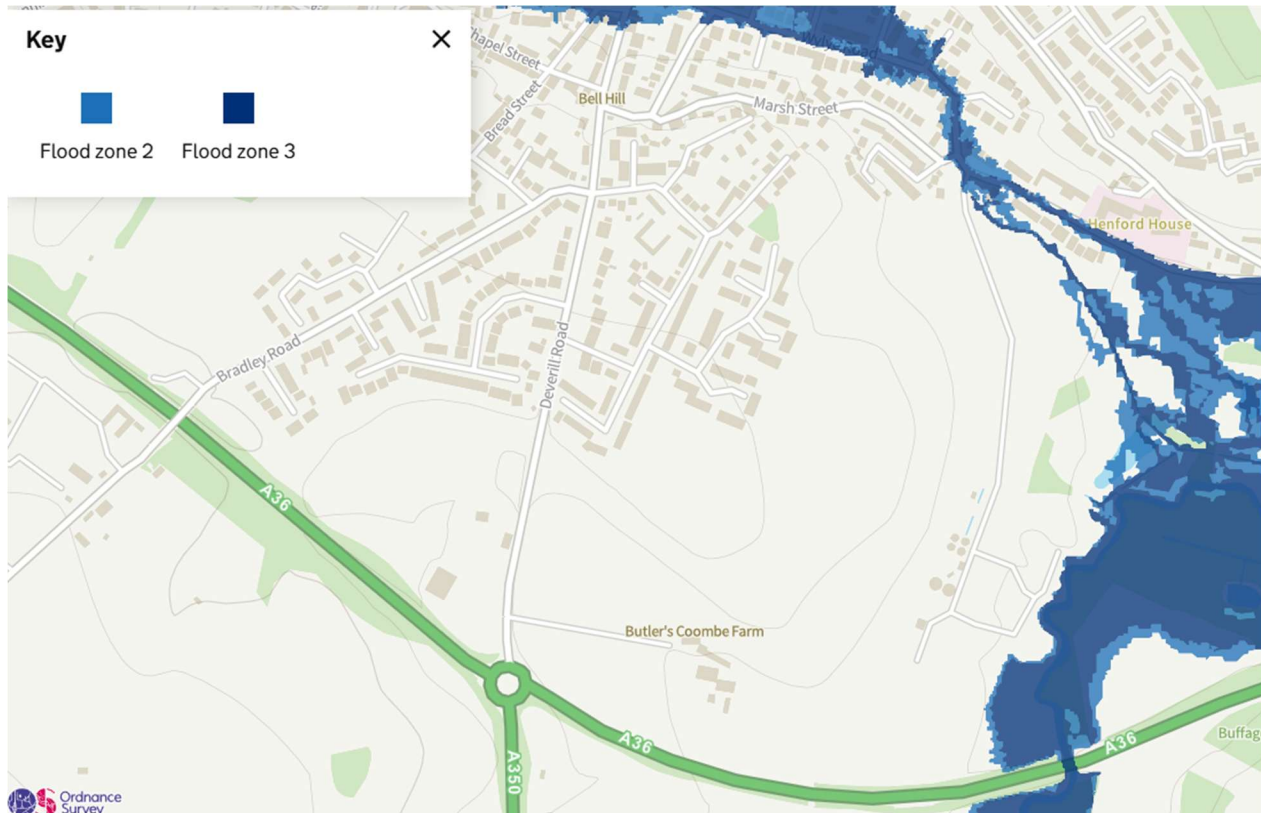


Figure 2: EA Flood Zone Map

- 7.2. The map shows the site and surrounding area to be in Flood Zone 1, which is land assessed to have a low probability of fluvial flooding.
- 7.3. Based on the flood maps available on the GOV.UK website, the site is assessed to be appropriate for the development as it is located in Flood Zone 1, which is land deemed to be at the lowest probability of fluvial flooding. No further assessment of flood risk is required concerning fluvial flooding and no measures are deemed necessary to manage flood risk from this source.

Surface Water Flooding

- 7.4. Surface water flooding, also known as pluvial flooding, occurs when the volume of rainfall exceeds the capacity of drains and surface water sewers and is unable to drain away through drainage systems or soak into the land, and instead flows over the land. The intensity of this flooding can be increased by blocked road gullies, drains and sewers, saturated and waterlogged land, and an increase in hard surfaces.
- 7.5. The EA's Risk of Flooding from Surface Water mapping provides an understanding of the areas, which may be at greater risk from surface water flooding, with the maps showing critical flow paths and areas situated in topographic depressions that could flood following an extreme rainfall event. A surface water flood risk map downloaded from the GOV.UK website is shown in Figure 5.



Figure 3: EA Surface Water Flood Risk Map

- 7.6. Figure 3 demonstrates that the site is at a very low risk of surface water flooding. There is some minor localised ponding near Ashley Coombe, which will be addressed by providing adequate surface water drainage as part of the proposed scheme.

Groundwater Flooding

- 7.7. Groundwater flooding occurs as a result of water rising up from the underlying aquifer or from water flowing from ephemeral springs. This tends to occur after long periods of sustained rainfall; the area's most at risk are often low-lying where the water table is more likely to be at shallow depths.
- 7.8. Wiltshire Council Level 1 Strategic Flood Risk Assessment, November 2024 identifies the area to sit within a zone where there is a risk of groundwater flooding to surface and subsurface assets and a possibility of groundwater emerging at the surface locally.
- 7.9. Given the site is located at the top of a slope this risk of flooding is considered low. However, due to the risk of flooding to subsurface assets infiltration techniques as a surface water disposal mechanism will be limited.

Sewer Flooding

- 7.10. In urban areas, rainwater frequently drains into surface water sewers or combined sewers (sewers containing both surface and wastewater). These sewers can be surcharged due to heavy rainfall, inadequate capacity or blockages, resulting in flooding of the surrounding area until the water can drain away.
- 7.11. Wiltshire Council Level 1 Strategic Flood Risk Assessment, November 2024 shows there have been no reports of sewer flooding in the vicinity of the site, therefore the risk of sewer flooding is considered low.

- 7.12. The development will be served by a new surface water system developed to ensure that there is no increase in peak flow arising using appropriate source control, site control and attenuation methods. Therefore, there will be no increase to sewer flooding risk. The surface water strategy for the site is outlined in section 10.

Flooding from Artificial Sources

- 7.13. Flooding from artificial sources, is most likely to result from burst water mains or from infrastructure failure in an artificial watercourse or water body, i.e., canals or other water features such as reservoirs. These systems are maintained, improved, and regularly inspected by relevant authorities so flood risk from these sources is generally considered to be low.
- 7.14. Flood maps associated with large reservoirs that hold over 25,000 cubic meters of water are available on the EA website. The maps help to identify areas that could potentially be affected by reservoir flooding and display a realistic worst-case scenario of the largest area that may be flooded if a reservoir were to fail and release the water it holds. The EA Reservoir Flood Map does not show the site to be within an area at risk of reservoir flooding.
- 7.15. Flood patterns associated with burst water mains would typically be limited to existing roads where water main infrastructure is usually located. On this basis, the flow path of flooding from a burst water main would likely be similar to that of surface water flooding and flow away from the properties. Therefore, the site is considered to be at low risk of flooding from this source.

8.0 Managing the Risk of Flooding

- 8.1. Section 7 established the site to be at low risk of flooding from all sources, therefore it is not anticipated that the development would cause an increase in the flood risk to the site or surrounding areas.
- 8.2. As the site has been established to be generally at low risk of flooding from all sources, no significant measures are required to manage flood risk apart from the following precautions:
- Surface water runoff from the development will need to be managed using Sustainable Drainage Systems (SuDS) to ensure that the development does not alter the risk of surface water flooding to the site and surrounding area. The surface water drainage strategy for the site is outlined in section 10.

9.0 The Sequential and Exception Test

- 9.1. In Section 7 it was established that the site lies in Flood Zone 1. The NPPF advises that all land uses are appropriate in Flood Zone 1, subject to due consideration of flood risk from all sources. Therefore, the proposed development is considered appropriate in terms of the sequential test, with it not being necessary to apply the exception test.

10.0 Surface Water Drainage Strategy

- 10.1. This section of the report outlines an approach for the disposal and management of surface water runoff from the development, with it expected that any further details of the strategy could be provided via a

condition of the planning permission once detailed design information and construction drawings are available for the development.

Surface Water Drainage Policy and Guidance

- 10.2. At a national level, the Flood and Water Management Act 2010 (FWMA) was introduced with the specific aim of reducing the risk of flooding in England and Wales and improving water management. The Act states that Lead Local Flood Authorities (LLFA's), must act within the Environment Agency's (EA) national strategy and co-operate with neighbouring authorities to address flood risk in their area and contribute towards the achievement of sustainable development.
- 10.3. The FWMA states that Sustainable Drainage System's (SuDS) should manage rainwater with the following aims:
- Reducing damage from flooding,
 - Improving water quality,
 - Protecting and improving the environment,
 - Protecting health and safety,
 - Ensuring the stability and durability of drainage systems.
- 10.4. This has been incorporated into the NPPF and associated PPG, which recommends SuDS are designed to control surface water run off close to where it falls and mimic natural drainage as closely as possible to provide opportunities to:
- Reduce the causes of flooding,
 - Remove pollutants from urban run-off from source.
 - Combine water management with green space with benefits for amenity, recreation and wildlife.
- 10.5. SuDS encompass a wide range of drainage techniques intended to minimise the rate of discharge, volume, and environmental impact of runoff. These include; blue / green roofs; rainwater harvesting; soakaways / infiltration systems / infiltration trenches / permeable paving; swales / basins / ponds / wetlands / below ground attenuation tanks.
- 10.6. The PPG goes on to advise that generally, the aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably practicable:
- Into the ground (infiltration),
 - To a surface water body,
 - To a surface water sewer, highway drain, or another drainage system,
 - To a combined sewer.
- 10.7. The National standards for sustainable drainage systems (SuDS) 2025 sets out the requirements for design of SuDS. It provides requirements for: flood risk outside the development; peak flow control; volume control; flood risk within the development; structural integrity; designing for maintenance considerations; and construction.

Runoff Destination

10.8. The PPG sets out a hierarchy for the discharge of surface water runoff. The methods of discharge are summarised in *Table 1* below with an assessment of each methods suitability.

System	Assessment
Store rainwater for later use.	With the nature of the development comprising residential dwellings, rainwater butts could be used to collect roof water for the purposes of irrigating domestic gardens.
Discharge to ground by infiltration.	A review of BGS data suggests that the site is underlain by Sandstone Sedimentary bedrock. The ground may have a sufficient infiltration rate subject to further testing to BRE 365 and groundwater monitoring. However, due to the risk of groundwater flooding to subsurface assets, infiltration would be unsuitable as a method of surface water disposal.
Discharge rainwater direct to a watercourse	There is no surface water to a watercourse in the vicinity of the site.
Discharge rainwater to a surface water sewer / drain	There is an existing surface water sewer to the north of the site within the landowner's control.
Discharge rainwater to the combined sewer.	As discharging surface water directly to a surface water sewer is a viable option, the discharge of surface water to a combined water sewer or drain would not be a suitable method for the disposal of surface water runoff from the development.

Table 1: Surface Water Runoff Discharge Method

10.9. Based on the assessment in *Table 1*, discharge of surface water via a gravity connection to the existing surface water sewer to the north of the site is the most suitable method of drainage for surface water runoff from the development.

Runoff Management

10.10. Surface water runoff from new developments should be managed in accordance with requirements set out in the March 2015 DEFRA report "Sustainable Drainage Systems: Non-statutory technical standards for sustainable drainage systems," in conjunction with the NPPF and PPG as well as the Sustainable Drainage System – Guidance for Devon (2023).

10.11. For greenfield developments, the peak runoff rate from the development to any highway drain, sewer or surface water body for the 1 in 1 year rainfall event and the 1 in 100 year rainfall event must not exceed the peak greenfield runoff rate for the same event.

10.12. Greenfield runoff rates and volumes for a variety of storm events up to the 1 in 100 year return period have been estimated using the FEH statistical method. The calculations are included in Appendix C and are based on the impermeable site area of 1.175ha. The estimated greenfield runoff rates are summarised in *Table 2* below for relevant return periods.

10.13. The Wiltshire Council Drainage and Betterment Strategy (June 2024) requires a 30% betterment over pre-development discharges for all storm events between the 1 in 1 year and 1 in 100 year return period events. The estimated betterment runoff rates are summarised in *Table 2* below for relevant return periods.

Return Period	Greenfield Runoff Rate (l/s)	30% Betterment Runoff Rate (l/s)
QBAR	3.6	2.52
1	3.1	2.17
30	8.3	5.81
100	11.5	8.05

Table 2: Greenfield Runoff Rates

10.14. Any sustainable drainage system should be designed so that the capacity takes account of the likely impacts of climate change and likely changes in impermeable area within the development over its lifetime and continues to provide effective drainage for properties.

10.15. The surface water drainage system will be designed to store excess surface water runoff for all rainfall events up to and including a 1 in 100 year event with a 45% allowance climate change.

Sustainable Drainage Systems (SuDS)

10.16. SuDS should be used across the development to control surface water flows to the required levels and to address other aims of surface water management, which are water quantity (flooding), water quality (pollution) biodiversity (wildlife and plants) and amenity. *Table 3* below provides an assessment of a range of SuDS techniques that can be used to minimise the rate of discharge, volume, and environmental impact of runoff.

System	Assessment	Suitability
Rainwater Harvesting	Rainwater harvesting is the collection of rainwater runoff for use. Runoff can be collected from roofs and then used in place of mains water for certain applications. Runoff from dwellings would be captured by rainwater gutters, downpipes that would discharge to domestic water butts where feasible for the purposes of irrigating domestic gardens.	✓
Infiltration Systems	Many different types of drainage components can be used to facilitate infiltration. These include soakaways, infiltration trenches, infiltration blankets and infiltration basins. Bioretention systems and pervious pavement can also be designed to allow infiltration from their bases. Due to the risk of groundwater flooding to subsurface assets, infiltration would be unsuitable as a method of surface water disposal.	✗
Blue / Green Roofs	Green roofs are areas of living vegetation, installed on the top of buildings, for a range of reasons including visual benefit, ecological value, enhanced building performance and the reduction of surface water runoff. They can be adapted to incorporate blue roof systems beneath, which comprise of a cellular system used to provide further attenuation and storage of surface water. The development is comprising of residential buildings with pitched roof profiles in keeping with the local area and thus the green roof system is unlikely to be appropriate to the development.	✗
Filter Strips	Filter strips are uniformly graded and gently sloping strips of grass or other dense vegetation that are designed to treat runoff from adjacent impermeable areas by promoting sedimentation, filtration, and infiltration. Generally, these systems are located alongside roads and parking areas, and are incorporated into landscaping and public open spaces often used as either a pre-treatment facility before swales, bioretention systems and trenches.	✓
Filter Drains	Filter drains are shallow trenches filled with stone/gravel that create temporary subsurface storage for the attenuation, conveyance, and filtration of surface water runoff. Generally, these	✓

	systems are used in conjunction with filter strips and are also located alongside roads and parking areas. Although it would normally only be appropriate to consider their use on sites where vegetated systems are impractical, filter drains could be used beneath other SuDS systems such as permeable paving systems and rain gardens for the collection and conveyance of surface water from these systems.	
Bioretention Systems	Bioretention systems (including rain gardens/tree pits) are shallow landscaped depressions that can reduce runoff rates/volumes and treat pollution using engineered soils and vegetation. Generally, these systems are provided in small shared public areas, on car park islands, roundabouts, footpaths, traffic calming and pedestrian zones (streetscapes). The systems would also provide amenity and biodiversity benefits by providing a habitat for local plants and wildlife. It may be possible to provide bioretention systems such as rain gardens or rain gardens planters around the buildings however due to site constraints space is limited.	✓
Permeable Pavements	Permeable pavements provide a pavement suitable for pedestrian and/or vehicular traffic while allowing rainwater to infiltrate through the surface and into the underlying structural layers. The water is temporarily stored beneath the overlying surface before it soaks into the ground or is collected by a filter drain where ground conditions do not permit infiltration. Permeable paving is suitable on this site and could be used to collect surface water from the drives as well as providing additional storage.	✓
Swales	Swales are shallow, flat-bottomed, vegetated open channels designed to convey, treat, and store runoff. They are generally suited for managing runoff from roads because they are a linear feature and are easily incorporated into the roadside space. They are also suitable for managing runoff from car parks and other impermeable and permeable areas. Swales are normally incorporated into landscape and public open spaces, as they tend to demand significant land take due to their shallow side slopes. This would restrict their usage as the proposed development has limited space.	✓
Basins / Ponds	Basins are large, landscaped depressions that are normally dry except during and immediately following storm events, while ponds are features with a permanent pool of water that provide both attenuation and treatment of surface water runoff. The systems are generally strategically located in areas of open space and are designed to temporarily store runoff associated with extreme rainfall events while it is released at controlled rates. Basin/Ponds are a suitable option.	✓
Attenuation Tanks	Attenuation tanks comprise of below-ground storage systems that temporarily store runoff associated with extreme rainfall events while it is released at controlled rates. They are normally incorporated beneath areas of hard landscaping. Attenuation tanks are a suitable option.	✓
Proprietary Treatment Systems	Proprietary treatment systems are manufactured products that remove specified pollutants from surface water runoff. It would normally only be appropriate to consider their use where site constraints preclude the use of other methods or where they offer specific benefits in facilitating the delivery of SuDS design criteria for a site. Other SuDS will be used therefore, it is unlikely that such systems would be required for the development.	✗

Table 3: SuDS Assessment

Surface Water Drainage Strategy

10.17. Surface water drainage strategies should aim to arrange SuDS to form a surface water management train that collectively captures, conveys, and stores surface water runoff from development whilst also delivering interception and pollution risk management. The SuDS facilities should also promote other environmental objectives of the development by providing a habitat for local plants and wildlife.

10.18. A surface water drainage approach for the development based on these principles and the SuDS identified to be suitable for the development in Table 2 is outlined below and shown on the drainage strategy drawings included in Appendix D.

- Roof water runoff from dwellings would be captured by rainwater gutters, downpipes that would discharge to domestic water butts where feasible for the purposes of irrigating domestic gardens.
- Surface water runoff from the proposed roof areas, drives and highways will connect via gravity into the proposed surface water sewer network within the development's road network and conveyed to the attenuation pond.
- The attenuation pond will store and attenuate all surface water flows for all storm events up to and including a 1 in 100 year event, with a 45% allowance for climate change. The pond will also provide the necessary water quality, biodiversity and amenity improvements.
- Surface water will discharge from the site at 2.5/s for all storm events up to and including a 1 in 100 year event, with a 45% allowance for climate change. This is equivalent to the existing sites greenfield runoff rate with a 30% betterment.

Hydraulic Analysis

10.19. The InfoDrainage software package by Autodesk has been used to size and hydraulically design the below ground surface water network, attenuation pond and associated flow control device. The design results for a variety of storm events up to and including the 1 in 100 year storm event with 45% allowance for increase in peak rainfall intensity over the lifetime of the development are included in Appendix C.

10.20. The hydraulic design is based on a site impermeable area of 1.179ha inclusive of a 10% increase in plot impermeable area to allow for urban creep.

10.21. The results show that discharge from the site can be restricted to 2.5/s and excess flows stored in the attenuation pond with no flooding.

Water Quality

10.22. The CIRIA C753 SuDS Manual 2015 sets out requirements for delivering appropriate levels of treatment to surface water runoff using SuDS. Table 4 below identifies that the SuDS systems proposed would have a total pollution mitigation index exceeding the recommended pollution hazard index for sources of surface water runoff on the development, thus confirming the SuDS components would provide suitable treatment of surface water runoff.

Index	Pollution Hazard Level	Pollution Hazard Index		
		TSS	Metals	TPH
Required Indices Individual property driveways, residential car parks, low traffic roads.	Low	0.5	0.4	0.4
Mitigation Indices Pond	-	0.7	0.7	0.5

Table 4: Pollution Mitigation Assessment

Amenity

10.23. The pond area will provide amenity benefits including: visual amenity and landscape character, health and wellbeing. Please refer to the Landscape and Visual Impact Assessment by David Jarvis Associates for further details.

Biodiversity

10.24. The pond and bioretention areas will provide biodiversity benefits contributing to the Biodiversity Net Gain of the site detailed in Stark Ecology report.

Exceedance

10.25. In the event that the capacity of the surface water drainage network was exceeded, exceedance flows would match those of the greenfield site. The site levels (both proposed and existing) would allow surface water from the development to be channelled off-site in a easterly direction towards the River Wylye. Exceedance routes are shown on the drainage strategy drawings included in Appendix D.

Management and maintenance

10.26. Property owners would be responsible for the maintenance of the private drainage system serving their individual properties, while shared sewers would be offered for adoption, or would be maintained as part of wider communal infrastructure by a management company funded by a communal service charge.

10.27. It is recommended that the surface water drainage system is maintained in accordance with the SuDS Maintenance Plan included in Appendix E.

11.0 Foul Water Strategy

11.1. This section of the report outlines an approach for the disposal and management of foul water runoff from the development, with it expected that any further details of the strategy could be provided via a condition of the planning permission once detailed design information and construction drawings are available for the development.

11.2. A foul water drainage scheme has been developed for the site and is shown on the drainage strategy plan included in Appendix D. Foul water flows from the development will be conveyed via gravity to the existing foul water sewer to the north of the site.

11.3. On a similar basis to the surface water drainage system, property owners would be responsible for the maintenance of the private drainage system serving their individual properties. Shared sewers would be offered for adoption or would be maintained as part of wider communal infrastructure by a management company funded by a communal service charge.

12.0 Conclusion

- 12.1. It has been established that the site is in Flood Zone 1, which is land assessed to not be at risk of tidal / fluvial flooding. The site has also been established to be generally at low risk of flooding from all other sources. All land uses are appropriate in Flood Zone 1. Therefore, the proposed development is considered appropriate in terms of national and local planning policy on flood risk.
- 12.2. A hierarchical assessment has established that it is appropriate to discharge surface water runoff from the development to the existing surface water sewer to the north of the site.
- 12.3. Before discharging surface runoff to the surface water sewer, flows will be restricted to as close to the sites equivalent greenfield runoff rate with a 30% betterment as practical. Discharges will be limited using a vortex flow control device, with excess flows stored and attenuated onsite within the attenuation pond for all return periods up to and including a 1 in 100 year design event with 45% allowance for climate change.
- 12.4. In terms of flood risk and drainage strategy, it is concluded that the development can be occupied and operated safely and that there will be no increase in the level of flood risk to the site or neighbouring sites. On this basis, the development would fulfil the aims of national and local planning policy in terms of flood risk and drainage strategy. However, any further details of the foul and surface water drainage strategy could be provided via a condition of the planning permission once detailed design information and construction drawings are available for the development if required.