



TURNPIKE CLOSE SEMINGTON

DRAINAGE MANAGEMENT STRATEGY



For

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TURNPIKE CLOSE SEMINGTON DRAINAGE MANAGEMENT STRATEGY

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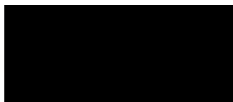
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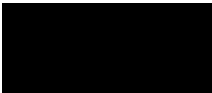
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EXECUTIVE SUMMARY

This Drainage Management Strategy was commissioned by Hollins Strategic Land LLP, referred to hereafter as 'the client'. This report has been prepared to support an outline planning application for the construction of 48no. residential dwellings and a village shop on land off Turnpike Close in Semington.

This assessment has been completed in accordance with National Planning Policy Framework and Planning Practice Guidance to consider the most appropriate sustainable drainage options for the proposals in line with the National Standards for Sustainable Drainage Systems (SuDS).

This DMS sets out the principles for a detailed drainage design to be developed at the reserved matters stage. There are three methods that have been reviewed for the management and discharge of surface water, these may be applied individually or collectively and should be applied in the order of priority as follows:

1. Discharge via infiltration;
2. Discharge to watercourse; and
3. Discharge to public sewer.

At present, given the topography and lack of natural drainage features present onsite, it is understood that surface water run-off generated, drains informally to ground over an extended period of time. Furthermore, review of the proposals for managing surface water generated by recent nearby developments, has identified that following formal testing, these had suitable infiltration rates to support a discharge to ground solution.

The proposal for the management of surface water run-off generated by the proposed impermeable areas onsite is to do the same. It is proposed that a combination of infiltration-based features be utilised to serve the site including an infiltration basin serving the wider scheme but also plot level infiltration in the form of bio-filtration, permeable surfacing, raingardens and domestic soakaways (subject to design parameters and engineering constraints). Soakaway Testing (to BRE365) will be undertaken at the reserved matter stage to inform the detailed drainage design works by confirming onsite infiltration rates.

The proposed surface water drainage system will be designed to cater for the surface water run-off generated in the events up to and including the 1 in 100yr return period event with 45% allowance for Climate Change. Discharge rates post-development will be limited by the rate of infiltration determined during onsite testing.

The chosen infiltration-based discharge method(s) will be designed to BRE365 standards in accordance with the CIRIA SuDS Manual. Discussion with Wiltshire Council at the reserved matters stage will be required to ensure that the proposed infiltration methods conform to their design requirements.

The proposals are to discharge foul water generated by the site to the public foul water sewer network within Turnpike Close.

This Drainage Management Strategy has been prepared in consultation with the relevant interested parties. The report is commensurate with the scale and nature of the development, and the development is appropriate in accordance with the National Standards for SuDS.

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Specialist Software

-  MicroDrainage WinDES (v.2020.1.3) – Calculation of Greenfield run-off volumes, rates of rainfall and stormwater storage estimates.

Abbreviations & Acronyms

BGS	British Geological Survey
WC	Wiltshire Council
DMS	Drainage Management Strategy
DCG	Design and Construction Guidance
EA	Environment Agency
FEH	Flood Estimation Handbook
LLFA	Lead Local Flood Authority
LPA	Local Planning Authority
QBAR	Mean Annual Flood
NPPF	National Planning Policy Framework
PPG	Planning Practice Guidance
QSE	Quick Storage Estimate
SuDS	Sustainable Drainage Systems
WW	Wessex Water

1.0 INTRODUCTION

1.1 Planning Policy Context

- 1.1.1 All forms of flooding and their impact on the natural and built environment are material planning considerations. The National Planning Policy Framework (NPPF) sets out the Government's objectives for the planning system, and how planning should facilitate and promote sustainable patterns of development, avoiding flood risk and accommodating the impacts of climate change.
- 1.1.2 Government policy with respect to development in flood risk areas is contained within the NPPF and the supporting Planning Practice Guidance (PPG) (refer to extracts in **Appendix A**). This Drainage Management Strategy (DMS) has been completed in accordance with NPPF/PPG to consider the most appropriate sustainable surface water and foul water drainage options for the proposals.
- 1.1.3 The purpose of this assessment is to ensure that there is no increased flood risk because of the development in line with the NPPF guidance. The use of Sustainable Drainage Systems (SuDS) to manage surface water run-off has also been considered as part of the assessment in line with the National Standards for SuDS.

1.2 Site Context

- 1.2.1 This DMS has been prepared to support an outline planning application for 48 residential properties and a village shop on land off Turnpike Close in Semington. The DMS sets out broad principles for a drainage design. A detailed drainage design will be required as part of RM application.

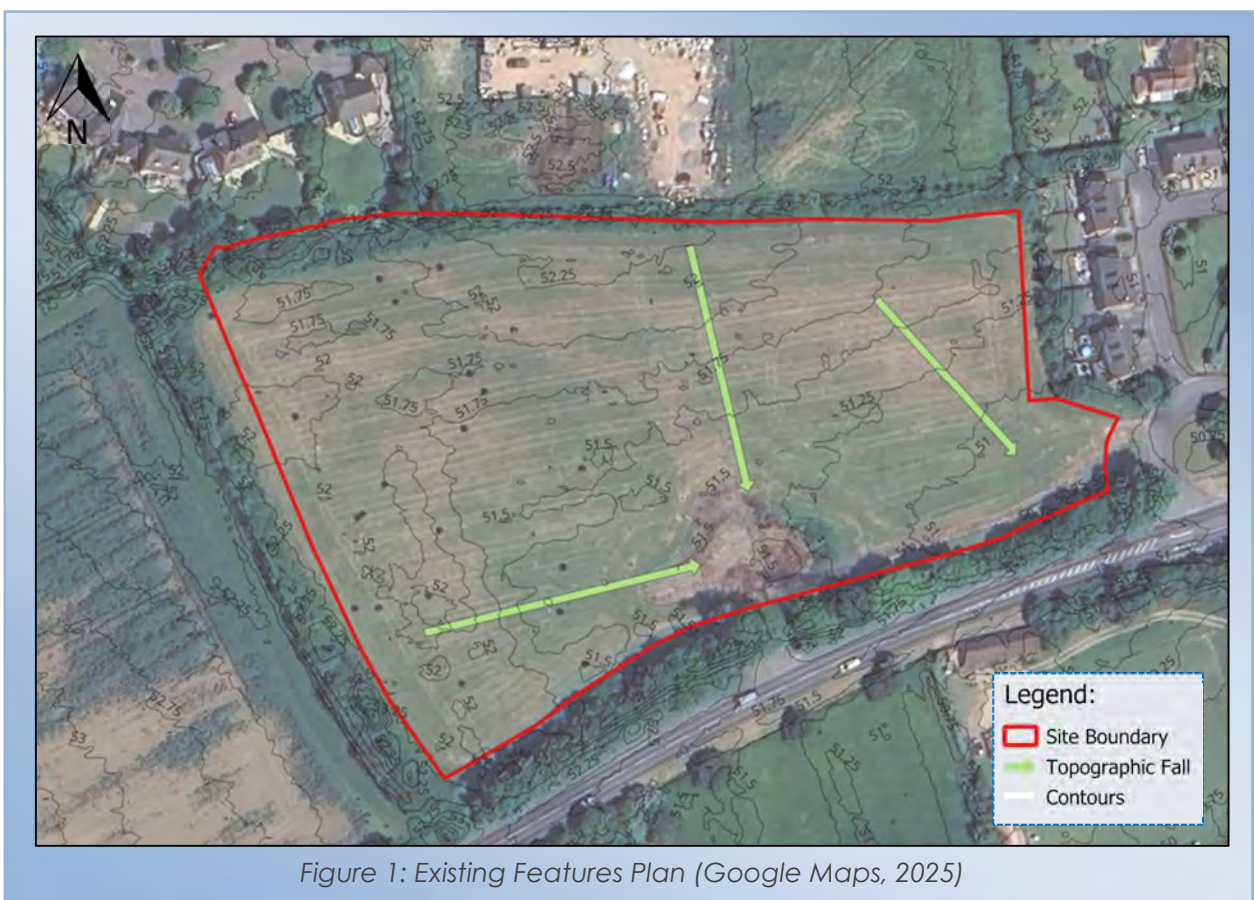
1.3 Consultation

- 1.3.1 The preparation of this report has been undertaken in consultation with the Environment Agency (EA), Wessex Water (WW) and Wiltshire Council (WC). The consultation responses can be seen in **Appendix B, C and D** respectively.

2.0 EXISTING SITE LOCATION

2.1 Location

- 2.1.1 The site is located off Turnpike Close in Semington. The nearest Ordnance Survey National Grid Reference is E: 389391, N: 160209 and the nearest postcode is BA14 6GY (see Location Plan in **Appendix E**). The whole site covers 2.6ha and is edged in red in **Figure 1**.
- 2.1.2 In terms of the surrounding land-use, the site is bound to the north by residential development. To the east is more residential development off Turnpike Close, this is illustrated in **Figure 1**. To the south of the site is the A361, and further south is undeveloped agricultural land. To the west, the site is bound by undeveloped agricultural land, with a commercial caravan storage area beyond.



2.2 Existing and Historical Land Use

- 2.2.1 The wider site is currently undeveloped agricultural land and comprises of low-density vegetation, with larger shrubs and trees located along the site boundaries. Mapping has identified a possible brick wall and a tarmac access from the south, with a dirt path alongside into the boundary. Review of historical mapping from 1888 to 1915 has identified no historical uses of the site other than agricultural.

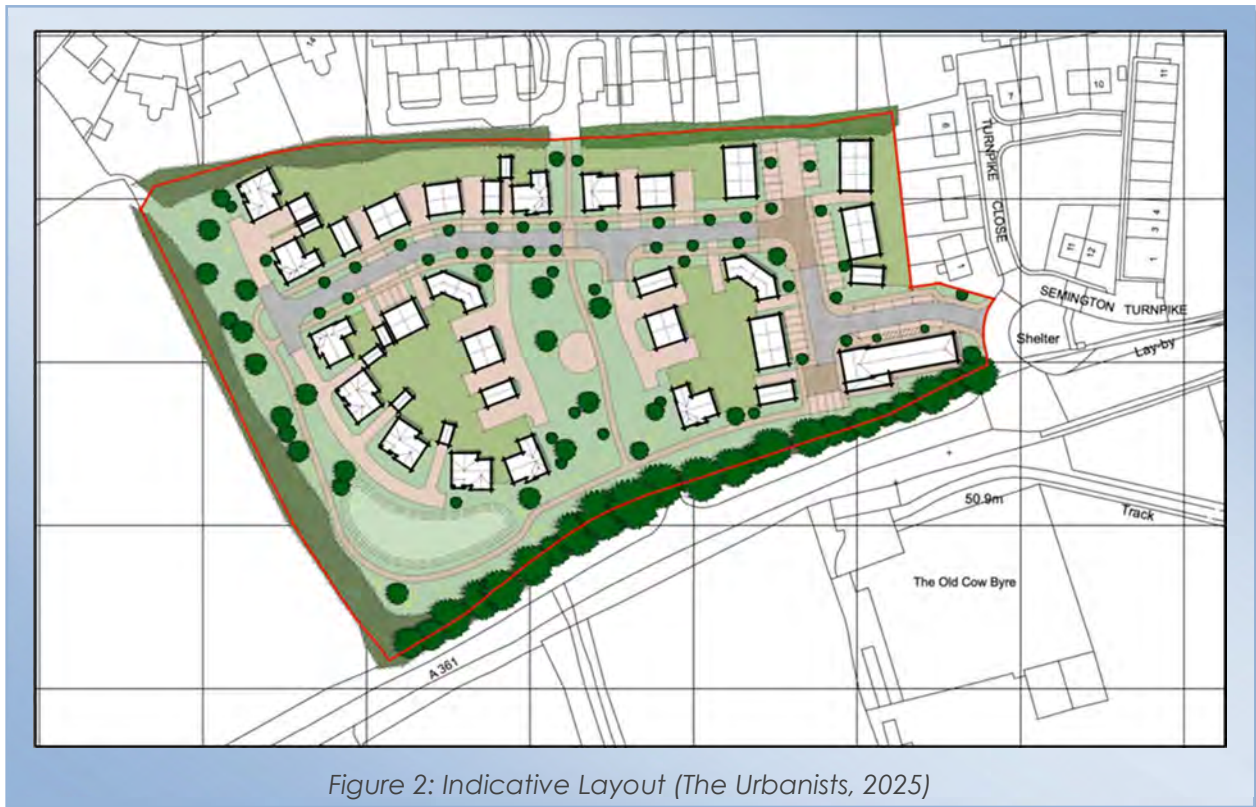
2.3 Topography

- 2.3.1 Generally the levels onsite fall from the north to south-east as illustrated in **Figure 1**; a topographical survey has been completed and is included in **Appendix F**. The highest point of the site is 52.035mAOD along the northern boundary and the lowest is 50.681mAOD in the south-eastern corner.
- 2.3.2 There is a small part of the site (north-western corner) which falls to the north-west away from the rest of the site. The patch of tarmac located along the southern boundary is at 51.453mAOD and lies at a slightly higher level than surrounding land. The arrows shown in **Figure 1** indicate the general falls across the site.

3.0 DEVELOPMENT PROPOSALS

3.1 Nature of the Development

- 3.1.1 This is an outline planning application for development on land off Turnpike Close, Semington. The proposals comprise of residential development with 48no. dwellings. The Indicative Layout is included in **Figure 2** (see full plan in **Appendix G**).



- 3.1.2 The total site covers 2.6ha and is understood to be 100% permeable at present. Based on the outline proposals, the development area covers a smaller 1.46ha, of which approximately 55% will be impermeable post-development (0.801ha). An additional 10% allowance for urban creep has been added with the estimated impermeable areas equating to 65% of the development area at 0.946ha.
- 3.1.3 Betterment in the form of permeable surfaces opposed to external hardstanding should also be considered where feasible to reduce the surface water run-off. Opportunities to provide soft landscaping on the site would provide added benefits to water quality and ecology.
- 3.1.4 National and local policy identifies that SUDS should be incorporated into new development where feasible to manage surface water run-off generated by new development.

4.0 SURFACE WATER MANAGEMENT

4.1 Pre-Development Surface Water Run-off

- 4.1.1 The total site covers 2.6ha and is understood to be 100% permeable at present. Based on the outline proposals, the development area covers a smaller 1.75ha. At present, given the topography and lack of natural drainage features present onsite, it is understood that surface water run-off generated likely, drains informally to ground over an extended period of time.
- 4.1.2 The peak rates and volumes of run-off generated by the site have been calculated for the peak events shown in **Table 1**. The surface water run-off rates have been calculated using the FEH Method. The full calculations in **Appendix H** are based on an area of 1ha and these rates and volumes are calculated pro-rata for the proposed development area of 1.75ha.

Dev. Area	Run-Off Rates				Run-Off Volumes	
	1 In 1yr	1 In 30yr	1 In 100yr	QBar	1 In 1yr	1 In 100yr
1.75ha	4.6l/s	11.2l/s	14.0l/s	5.8l/s	169.4cu.m	488.6cu.m

Table 1: Pre-Development Surface Water Run-Off Rates (Betts Hydro, 2026)

4.2 Post Development Surface Water Run-Off

- 4.2.1 Due to the nature of the development proposals it is understood that the impermeable areas of the site will increase. We have estimated that the post-development impermeable areas will cover to 55% of the development area (this equates to 0.801ha). In accordance with WC's requirements, an additional 10% allowance has also been added to the proposed impermeable area as part of this assessment to account for urban creep (totalling 0.946ha).
- 4.2.2 These proposed impermeable areas will however be defined as part of the detailed drainage design work at RM stage. The unrestricted post-development run-off rates generated by the assumed impermeable area are detailed in **Table 2**.

Proposed Imp. Area (+10% UC)	Run-Off Rates			Run-Off Volumes	
	1 In 1yr	1 In 30yr	1 In 100yr + 45% CC	1 in 1yr	1 in 100yr
1.138ha	57.3l/s	110.7l/s	203.0/s	274.4cu.m	761.8cu.m

Table 2: Post-Development Un-Restricted Run-Off Rates (Betts Hydro, 2025)

4.3 Sustainable Drainage Systems (SuDS)

- 4.3.1 In accordance with national and local planning policy, including the National Standards for Sustainable Drainage Systems (June 2025) and the SuDS Manual (CIRIA 753), peak surface water discharge rates from new development should be appropriately managed and where possible reduced.

- 4.3.2 To manage surface water run-off policy shows that preference should always be given to Sustainable Drainage Systems (SuDS) over the traditional methods wherever possible and practical. Opportunities should also be taken to provide soft landscaping where at all possible on site to assist in minimising surface water run-off.
- 4.3.3 SuDS can (if designed and situated appropriately) address the four key sustainability objectives embedded in planning policy including providing space for water (water quantity), improving water quality and biodiversity, along with providing valuable amenity/recreational space within new development sites. These benefits of SuDS depend on the type of features being proposed, some typical examples relevant to this nature of development are illustrated in **Figure 3**.



- 4.3.4 Promoting SuDS to deal with surface water at the source, will limit the required attenuation and in turn reduce the volume of surface water in the nearby watercourse and sewer infrastructure. In accordance with the National Standards for Sustainable Drainage Systems and the SuDS Manual (CIRIA 753), the proposed SuDS features are discussed below in terms of hierarchy of use.
- 4.3.5 It is proposed that permeable surfacing and bio-filtration techniques be included within the main residential areas where practical to provide opportunity for natural uptake but also added benefits to the water quality of run-off generated in these areas. There may also be scope to incorporate rainwater butts/rain garden style raised planters (as illustrated in **Figure 3**) within the plot drainage elements to provide added water quality, amenity, and biodiversity benefit.
- 4.3.6 In terms of conveyance given the site constraints this will likely be in the form of belowground pipework, depending on design requirements and adoption standards it may be possible to consider some shallow filter drains/ infiltration trenches adjacent to some of the highways. This would provide further betterment in terms of water quality as part of the SuDS treatment train.
- 4.3.7 Stormwater storage will be provided above ground within two infiltration basin (where rates are suitable). When designed appropriately the SuDS features such as those proposed can aid with attenuation and provide added benefits in terms of water quality, biodiversity, and amenity value.

- 4.3.8 Detailed design at RM stage will confirm suitability for incorporation of SuDS following more detailed analysis of Finished Floor Levels, ground conditions and attenuation needs.
- 4.3.9 If infiltration is not feasible for the entire site, following testing to BRE365, then a connection into the main drainage systems should be considered noting that the presence of the permeable surfaces will allow the first 5mm of rainfall to be dealt with at source as identified in the SuDS Manual (CIRIA 753).

4.4 Methods of Surface Water Management

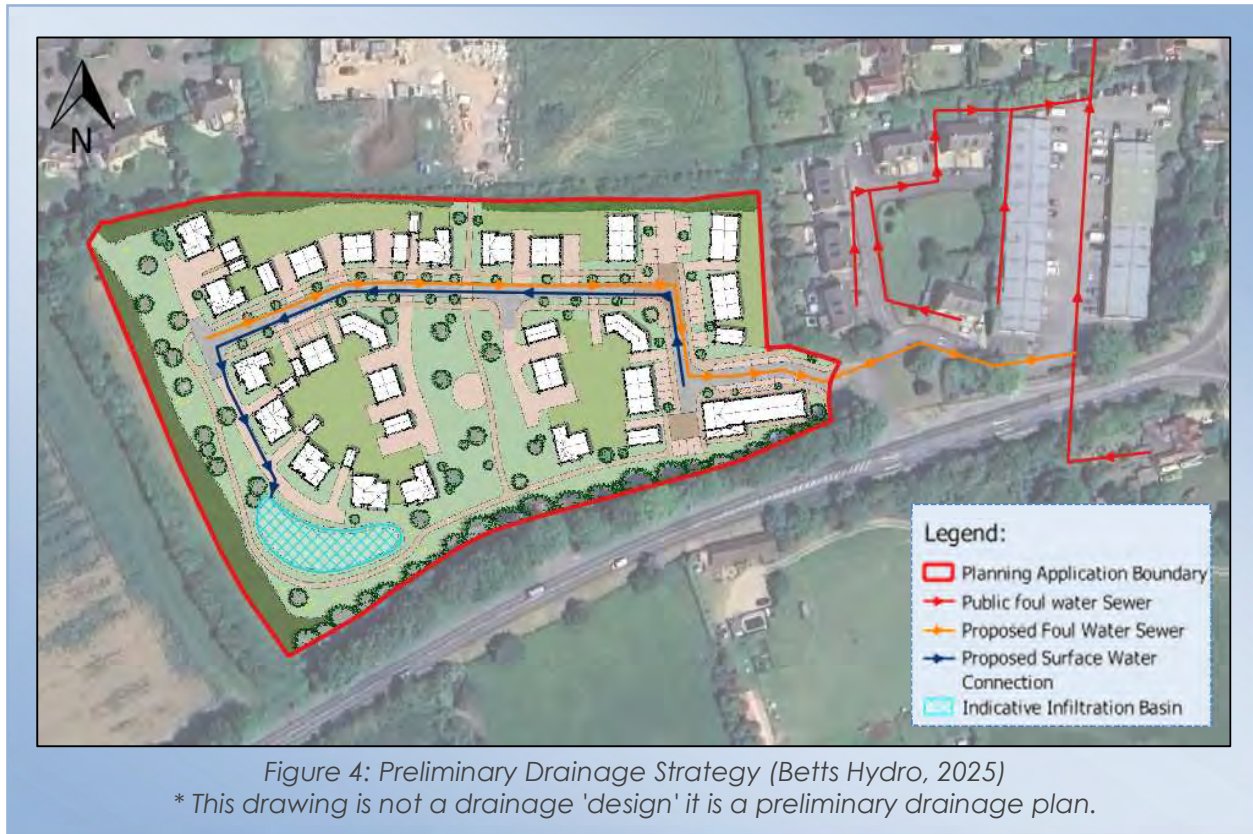
- 4.4.1 There are three methods that have been reviewed for the management and discharge of surface water. These may be applied individually or collectively to form a complete strategy and should be applied in the order of priority listed below:
 - Discharge via infiltration
 - Discharge to watercourse
 - Discharge to the public sewerage system

4.5 Discharge via Infiltration

- 4.5.1 Any impermeable areas that can drain to soakaway or an alternative method of infiltration would significantly improve the sustainability of any new surface water system. The published online datasets have been reviewed to consider how favourable the underlying strata is to support a potential infiltration-based solution at the site.
- 4.5.2 The British Geology Survey (BGS) mapping data indicates that the bedrock geology consists of Cornbrash Formation - Limestone. The underlying strata (noted above) appears to suggest that underlying permeability is medium to high.
- 4.5.3 The Cranfield Soil and AgriFood Institute (CSAI), Soilsdscapes viewer identifies the soils to be 'Shallow lime-rich soils over chalk or limestone'. An FEH soil factor of 0.388 suggests that the underlying soils have a medium-low permeability (0.1 is very high and 0.5 is very low).
- 4.5.4 Review of the proposals for managing surface water generated by recent nearby developments, has identified that following formal testing, these had suitable infiltration rates to support a discharge to ground solution, (16/01678/OUT; PL/2022/01367). The proposal for the management of surface water run-off generated by the proposed impermeable areas onsite is to do the same.
- 4.5.5 In terms of conveyance, the proposals are to utilise belowground pipework. Depending on design requirements and adoption standards it may also be possible to consider some shallow filter drains/ infiltration trenches adjacent to some of the highways. This would provide further betterment in terms of water quality as part of the SuDS treatment train. Stormwater storage will be provided above ground within two infiltration basins, illustrated in **Figure 4** subsequently (see full plan in **Appendix I**).
- 4.5.6 Detailed design will confirm any stormwater storage requirements and the suitability of a gravity-based infiltration system to manage surface water post-development. The

use of additional infiltration/SuDS features such as rain gardens, permeable paving and swales would reduce the volumes of surface water entering these basins and provide additional source control.

- 4.5.7 The proposed surface water drainage system will be designed to cater for the surface water run-off generated in the events up to and including the 1 in 100yr return period event with 45% allowance for Climate Change.



Proposed Discharge Rates

- 4.5.8 Discharge rates are limited by the rate of infiltration and should not exceed that of the existing situation. To confirm infiltration rates on the site, it is recommended that Soakaway Testing to BRE365 standards is undertaken at detailed design stage as part of the RM application.

4.6 Discharge to Watercourse/Waterbody

- 4.6.1 The next method is to discharge surface water run-off to a nearby watercourse/waterbody. The nearest watercourse to the site is Semington Brook, located 735m northeast of the site.
- 4.6.2 Should infiltration not offer a full drainage solution for the site, then discharge to watercourse is unlikely to prove a viable alternative given its proximity from the site and the surrounding development.

4.7 Discharge to the Public Sewer Network

- 4.7.1 WW sewer records have identified a Wiltshire Highways surface water drain within Turnpike Close to the east of the site and a private surface water sewer within development on turnpike close.
- 4.7.2 If infiltration is not feasible, then the next viable alternative would be to connect to the private surface water sewer within the development on Turnpike Close. The right to from such a connection is upheld within the first schedule of the official 1982 conveyance, whereby Wiltshire Council purchased land for the construction of Semington Turnpike (See **Appendix J** for extract).

Proposed Discharge Rates

- 4.7.3 If infiltration is found to be unsuitable following Soakaway Testing to BRE365 standards, the proposals are to form a connection to the existing surface water sewer within Turnpike Close. Wiltshire Council have indicated that if such a connection is required, the rate of discharge should be limited based on the post-development impermeable area of 1.138ha. As such, the post-development surface water discharge rate is not to exceed 3.8l/s based on a rate of 3.3l/s/ha.

4.8 Climate Change

- 4.8.1 There are indications that the climate in the UK is changing significantly, and it is widely believed that the nature of climate change will vary greatly by region. Expert opinion indicates the likelihood that future climate change would produce more frequent short duration and high intensity rainfall events with the addition of more frequent periods of long duration rainfall.
- 4.8.2 It is believed that the impact of climate change means there is likely to be a long-term increase in the average sea levels, with an expectation that sea levels will rise gradually. An increase in flood water levels means that future flooding events will occur more frequently and will have a greater impact.
- 4.8.3 In light of the future uncertainties Climate Change should be accounted for within the design of all new developments. Climate change factors have been considered and any increase in the level of flood risk (to the site) from climate change is likely to be related to the increase in rainfall intensity and duration and its impact upon the surface water drainage system.
- 4.8.4 In accordance with the Avon Bristol and North Somerset Streams Management Catchment peak rainfall allowances, the upper end allowance (**Table 4**) for the 2070's has been utilised (based on 100yr design life).

PROJECTIONS	TOTAL POTENTIAL CHANGE ANTICIPATED FOR THE 2070'S
Upper End Allowance	45%
Central Allowance	25%

Table 3: Change to Peak Rainfall Compared to 1981-2000 Baseline (Environment Agency, 2025)

5.0 FOUL WATER MANAGEMENT

- 5.1 WW sewer records have identified a public foul water sewer within Turnpike Close to the east of the site (sewer records included in **Appendix C**). The proposals are to discharge foul water generated by the site to this system within Turnpike Close, downstream of FWMH6001. Detailed design will need to confirm the exact point of connection.
- 5.2 Based on the proposals for the construction of 48no. residential dwellings, the approximate peak foul water flows generated by the site have been calculated at 2.2l/s, based on 4000 litres per dwelling per 24 hours as per the guidance contained within DCG.
- 5.3 Consent for work to the public sewer network will be required from WW at an early stage, this includes consent for the proposed rates of discharge and the points of connection. Any offsite asset routing works will also need to be considered in terms of consents with the relevant offsite landowners (Highways Authority).

6.0 SUMMARY AND CONCLUSIONS

- 6.1 The key focus of this assessment is on the sustainable management of surface water run-off to ensure no increased flood risk results from the development proposals. The surface water run-off management options have been assessed in accordance with the sustainable drainage hierarchy.
- 6.2 This DMS sets out the principles for a detailed drainage design which will be developed at the reserved matters stage. There are three methods that have been reviewed for the management and discharge of surface water, these may be applied individually or collectively and should be applied in the order of priority as follows:
1. Discharge via infiltration;
 2. Discharge to watercourse; and
 3. Discharge to public sewer.
- 6.3 At present, given the topography and lack of natural drainage features present onsite, it is understood that surface water run-off generated drains informally to ground over an extended period of time. Furthermore, review of the proposals for managing surface water generated by recent nearby developments, has identified that following formal testing, these had suitable infiltration rates to support a discharge to ground solution. The proposal for the management of surface water run-off generated by the proposed impermeable areas onsite is to do the same
- 6.4 It is proposed that a combination of infiltration-based features be utilised to serve the site including an infiltration basin serving the wider scheme but also plot level infiltration in the form of bio-filtration, permeable surfacing, raingardens and domestic soakaways (subject to design parameters and engineering constraints). Soakaway Testing (to BRE365) will be undertaken at the reserved matter stage to inform the detailed drainage design works by confirming onsite infiltration rates.
- 6.5 The proposed surface water drainage system will be designed to cater for the surface water run-off generated in the events up to and including the 1 in 100yr return period event with 45% allowance for Climate Change.
- 6.6 The use of Soakaway testing to BRE365 standards, to be undertaken as part of a reserved matters application will confirm the specific infiltration rates for the site. Detailed design will confirm with accuracy, any stormwater storage requirements and the feasibility of a gravity-based infiltration system to manage surface water post-development.
- 6.7 The proposals are to discharge foul water generated by the site to the public foul water sewer system within Turnpike Close. Any offsite asset routing works will need to be considered in terms of consents with the relevant offsite landowners (Highways Authority). Consent for work to the public sewer network will be required from WW at an early stage, this includes consent for the proposed rates of discharge and the points of connection.
- 6.8 This Drainage Management Strategy has been prepared in consultation with the relevant interested parties. The report is commensurate with the scale and nature of the development, and the development is appropriate in accordance with the National Standards for SuDS.

7.0 RECOMMENDATIONS

- 7.1 To confirm infiltration rates on the site, Soakaway testing to BRE365 standards will be undertaken at the detailed design stage as part of a reserved matters application.
- 7.2 By keeping the finished floor levels elevated relative to the externals, this should help create an overland flood flow route in the event of a breach or any other source of flooding that could lead to overland flow.
- 7.3 Any overland flows generated by the development must be carefully controlled. Safe avenues directing overland flow away from any existing and proposed buildings are advised.
- 7.4 To minimise the flood risk to the neighbouring properties it is recommended that the surface water run-off generated by the proposals be managed effectively with the peak rates of run-off being restricted to the equivalent of the pre-development situation (with betterment where required).
- 7.5 Discharge rates are limited by the rate of infiltration; the chosen infiltration-based discharge method(s) will be designed to BRE365 standards in accordance with the CIRIA SuDS Manual. Discussion with Wiltshire Council will also be required at the reserved matters stage to ensure that the proposed infiltration methods conform to their design requirements.
- 7.6 The proposed onsite surface water drainage system will need to be sized to contain up to and including the 1 in 100yr return period storm event with a 45% allowance for climate change being contained onsite.
- 7.7 Any offsite works to accommodate the drainage proposals will need to be discussed with the relevant parties during the detailed design stage.
- 7.8 As with any drainage system, blockages within either the foul or surface water system have the potential to cause flooding or disruption. It is important that should any drainage systems not be offered for adoption to either the Water Company or the Local Authority then an appropriate maintenance regime should be scheduled with a suitably qualified management company for these private drainage systems.
- 7.9 If an extreme rainfall event exceeds the design criteria for the drainage system it is likely that there will be some overland flows that are unable to enter the system, it is important that these potential overland flows are catered for within the proposed development site if the capacity of the drainage system is exceeded.

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Google Maps – <http://maps.google.co.uk/>
HR Wallingford UK SuDS – <https://www.uksuds.com/>
Rainfall Climate Change Allowance - <https://environment.data.gov.uk/hydrology/climate-change-allowances/rainfall>
Streetmap – <http://www.streetmap.co.uk/>
United Utilities - <https://www.unitedutilities.com/>

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APPENDIX A: NPPF + PPG EXTRACTS

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14. Meeting the challenge of climate change, flooding and coastal change

161. The planning system should support the transition to net zero by 2050 and take full account of all climate impacts including overheating, water scarcity, storm and flood risks and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.

Planning for climate change

162. Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating and drought from rising temperatures⁶¹. Policies should support appropriate measures to ensure the future health and resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure.
163. The need to mitigate and adapt to climate change should also be considered in preparing and assessing planning applications, taking into account the full range of potential climate change impacts.
164. New development should be planned for in ways that:
- a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through incorporating green infrastructure and sustainable drainage systems; and
 - b) help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings in plans should reflect the Government's policy for national technical standards.
165. To help increase the use and supply of renewable and low carbon energy and heat, plans should:
- a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, and their future re-powering and life extension, while ensuring that adverse impacts are addressed appropriately (including cumulative landscape and visual impacts);

⁶¹ In line with the objectives and provisions of the Climate Change Act 2008.

- b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and
 - c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.
166. In determining planning applications, local planning authorities should expect new development to:
- a) comply with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; and
 - b) take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.
167. Local planning authorities should also give significant weight to the need to support energy efficiency and low carbon heating improvements to existing buildings, both domestic and non-domestic (including through installation of heat pumps and solar panels where these do not already benefit from permitted development rights). Where the proposals would affect conservation areas, listed buildings or other relevant designated heritage assets, local planning authorities should also apply the policies set out in chapter 16 of this Framework.
168. When determining planning applications for all forms of renewable and low carbon energy developments and their associated infrastructure, local planning authorities should:
- a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal's contribution to a net zero future;
 - b) recognise that small-scale and community-led projects provide a valuable contribution to cutting greenhouse gas emissions;
 - c) in the case of applications for the repowering and life-extension of existing renewable sites, give significant weight to the benefits of utilising an established site.
169. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas.

Planning and flood risk

170. Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where

development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

171. Strategic policies should be informed by a strategic flood risk assessment, and should manage flood risk from all sources. They should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards.
172. All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property. They should do this, and manage any residual risk, by:
 - a) applying the sequential test and then, if necessary, the exception test as set out below;
 - b) safeguarding land from development that is required, or likely to be required, for current or future flood management;
 - c) using opportunities provided by new development and improvements in green and other infrastructure to reduce the causes and impacts of flooding, (making as much use as possible of natural flood management techniques as part of an integrated approach to flood risk management); and
 - d) where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to relocate development, including housing, to more sustainable locations.
173. A sequential risk-based approach should also be taken to individual applications in areas known to be at risk now or in future from any form of flooding, by following the steps set out below.
174. Within this context 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.
175. The sequential test should be used in areas known to be at risk now or in the future from any form of flooding, except in situations where a site-specific flood risk assessment demonstrates that no built development within the site boundary, including access or escape routes, land raising or other potentially vulnerable elements, would be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk).
176. Applications for some minor development and changes of use⁶² should also not be subject to the sequential test, nor the exception test set out below, but should still meet the requirements for site-specific flood risk assessments set out in footnote 63.

⁶² This includes householder development, small non-residential extensions (with a footprint of less than 250m²) and changes of use; except for changes of use to a caravan, camping or chalet site, or to a mobile home or park

177. Having applied the sequential test, if it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied. The need for the exception test will depend on the potential vulnerability of the site and of the development proposed, in line with the Flood Risk Vulnerability Classification set out in Annex 3.
178. The application of the exception test should be informed by a strategic or site-specific flood risk assessment, depending on whether it is being applied during plan production or at the application stage. To pass the exception test 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.
179. Both elements of the exception test should be satisfied for development to be allocated or permitted.
180. 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 plan-making stage, or if more recent information about existing or potential flood risk should be taken into account.
181. 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 assessment⁶³. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:
- a) 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;
 - b) 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;
 - c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;

home site, where the sequential and exception tests should be applied as appropriate.

⁶³ A site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

- d) any residual risk can be safely managed; and
 - e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.
182. Applications which could affect drainage on or around the site should incorporate sustainable drainage systems to control flow rates and reduce volumes of runoff, and which are proportionate to the nature and scale of the proposal. These should provide multifunctional benefits wherever possible, through facilitating improvements in water quality and biodiversity, as well as benefits for amenity. Sustainable drainage systems provided as part of proposals for major development should:
- a) take account of advice from the Lead Local Flood Authority;
 - b) have appropriate proposed minimum operational standards; and
 - c) have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development.

Coastal change

183. In coastal areas, planning policies and decisions should take account of the UK Marine Policy Statement and marine plans. Integrated Coastal Zone Management should be pursued across local authority and land/sea boundaries, to ensure effective alignment of the terrestrial and marine planning regimes.
184. Plans should reduce risk from coastal change by avoiding inappropriate development in vulnerable areas and not exacerbating the impacts of physical changes to the coast. They should identify as a Coastal Change Management Area any area likely to be affected by physical changes to the coast, and:
- a) be clear as to what development will be appropriate in such areas and in what circumstances; and
 - b) make provision for development and infrastructure that needs to be relocated away from Coastal Change Management Areas.
185. Development in a Coastal Change Management Area will be appropriate only where it is demonstrated that:
- a) it will be safe over its planned lifetime and not have an unacceptable impact on coastal change;
 - b) the character of the coast including designations is not compromised;
 - c) the development provides wider sustainability benefits; and
 - d) the development does not hinder the creation and maintenance of a continuous signed and managed route around the coast⁶⁴.

⁶⁴ As required by the Marine and Coastal Access Act 2009.

186. Local planning authorities should limit the planned lifetime of development in a Coastal Change Management Area through temporary permission and restoration conditions, where this is necessary to reduce a potentially unacceptable level of future risk to people and the development.

How can neighbourhood plans and neighbourhood development/community right to build orders take account of coastal change?

In any instance where a Neighbourhood Area is proposed in a Coastal Change Management Area, careful attention should be paid to the guidance on [what development would be appropriate in such an area](#), including whether [time-limiting planning permissions](#) are needed. The local planning authority will need to be consulted about existing and anticipated levels of risk, and the types of development that may or may not be appropriate.

See related policy in [paragraphs 170 to 173 of the National Planning Policy Framework](#) (<https://www.gov.uk/guidance/national-planning-policy-framework/14-meeting-the-challenge-of-climate-change-flooding-and-coastal-change>).

Paragraph: 076 Reference ID: 7-076-20220825

Revision date: 25 08 2022

Flood Zone and flood risk tables

- Table 1: Flood Zones
- [National Planning Policy Framework Annex 3 - Flood risk vulnerability classification](#) (<https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification>)
- [Table 2: Flood risk vulnerability and flood zone 'incompatibility'](#)

Paragraph: 077 Reference ID: 7-077-20220825

Revision date: 25 08 2022

Table 1: Flood Zones

Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 0.1% annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map for Planning – all land outside Zones 2, 3a and 3b)
Zone 2 Medium Probability	Land having between a 1% and 0.1% annual probability of river flooding; or land having between a 0.5% and 0.1% annual probability of sea flooding. (Land shown in light blue on the Flood Map)

Flood Zone	Definition
Zone 3a High Probability	Land having a 1% or greater annual probability of river flooding; or Land having a 0.5% or greater annual probability of sea. (Land shown in dark blue on the Flood Map)
Zone 3b The Functional Floodplain	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise: • land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or • land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding). 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)

Note: The Flood Zones shown on the Environment Agency's Flood Map for Planning (Rivers and Sea) do not take account of the possible impacts of climate change and consequent changes in the future probability of flooding. Reference should therefore also be made to the [Strategic Flood Risk Assessment \(https://www.gov.uk/guidance/local-planning-authorities-strategic-flood-risk-assessment\)](https://www.gov.uk/guidance/local-planning-authorities-strategic-flood-risk-assessment) when considering location and potential future flood risks to developments and land uses.

Paragraph: 078 Reference ID: 7-078-20220825

Revision date: 25 08 2022

Table 2: Flood risk vulnerability and flood zone 'incompatibility'

Flood Zones	Flood Risk Vulnerability Classification				
	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

Notes to table 2:

- This table does not show the application of the [Sequential Test](#) which should be applied first to guide development to the lowest flood risk areas; nor does it reflect the need to avoid flood risk from sources other than rivers and the sea;
- The Sequential and [Exception Tests](#) do not need to be applied to those developments set out in [National Planning Policy Framework footnote 56](#) (<https://www.gov.uk/guidance/national-planning-policy-framework/14-meeting-the-challenge-of-climate-change-flooding-and-coastal-change>). The Sequential and Exception Tests should be applied to ‘major’ and ‘non major’ development;
- Some developments may contain different elements of vulnerability and the highest vulnerability category should be used, unless the development is considered in its component parts.

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

APPENDIX B: EA INFORMATION & CORRESPONDENCE

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Hollie Waud
Betts Hydro
holliewaud@betts-associates.co.uk

Our ref: EIR2025/16511
Date: 22nd July 2025

Dear Hollie Waud,

Thank you for your enquiry which was received on 3rd July 2025. We respond to requests under the Freedom of Information Act 2000 and Environmental Information Regulations 2004.

Abstract

Name	Product 4
Description	Detailed Flood Risk Assessment Map for BA14 6GY NGR: ST8939160209
Licence	Open Government Licence
Information Warnings	<i>The mapping of features provided as a background in this product is © Ordnance Survey. It is provided to give context to this product. The Open Government Licence does not apply.</i>
Attribution	Contains Environment Agency information © Environment Agency and/or database rights. Contains Ordnance Survey data © Crown copyright 2025 Ordnance Survey AC0000807064.

Open Data

Environment Agency published datasets are available on the weblink below as part of the Government's 'Open Data' project and are available for you to download free of charge.

Environment Agency published datasets: [Find open data - data.gov.uk](#)

Examples of datasets you may require:

- Flood Map for Planning
- Recorded Flood Outlines
- Historic Flood Map
- Surface Water for Spatial Planning extents

You can also access the Flood Map for Planning here: <https://flood-map-for-planning.service.gov.uk/>

You can also access the Risk of Flooding from Surface Water maps and Risk of Flooding from Reservoirs information here: <https://check-long-term-flood-risk.service.gov.uk/>

If you have requested this information to help inform a development proposal, then you should also note the detail in the attached advisory text on the use of Environment Agency Information and Further Guidance for FRAs.

Recorded Historic Flood Events

We no longer produce pdf copies of the Historic Flood Map. This information is available to search select, and download free of charge as part of the Government's 'Open Data' project as

- Recorded Flood Outlines
- Historic Flood Map

These are GIS layers and can be downloaded from: [Environment Agency - Publishers - data.gov.uk](https://data.gov.uk/publishers/environment-agency)

Please note: we cannot guarantee that this is an exhaustive list of all past flood events in this location. All reasonable care has been taken to ensure that the historical flood event data is as accurate as possible. The Environment Agency will update it's records if new evidence emerges.

Strategic Flood Risk Assessment (SFRA)

When preparing a FRA to support a development proposal in this location you should refer to Wiltshire Council's SFRA Reports Level 1 which is available to download via the following link:

https://www.wiltshire.gov.uk/media/14497/SD67-Wiltshire-Level-1-Strategic-Flood-Risk-Assessment-2024/pdf/SD67_Wiltshire_Level_1_Strategic_Flood_Risk_Assessment_2024.pdf?m=1733141632550

The Wiltshire Council Local Plan is available via this link: <https://www.wiltshire.gov.uk/planning-policy-local-plan-review-consultation>. Please contact Wiltshire Council for further information about their latest SFRA.

Planning Advice

We now charge for aspects of discretionary planning advice including pre-application enquiries. This approach provides advice to developers in two ways. Firstly, there is the provision of 'free' high level advice available to everyone where we give a preliminary opinion on a proposed development. This sets out the environmental constraints together with any issues this raises for us. Should you wish us to obtain more detailed advice, we may be able to provide this through our discretionary chargeable scheme aimed at recovering our costs. If you have questions regarding elements of your enquiry related to Planning and Development, please contact our Sustainable Places team on wx.sp@environment-agency.gov.uk.

Flood Levels

The site is situated outside of Flood Zone 2 and Flood Zone 3. Therefore, we do not have any relevant 1D/ 2D modelled water level or depth data to provide.

Please note: If your site is in Flood Zone 1 but the Flood Map for Planning (FMfP) or your Local Planning Authority's (LPA) Strategic Flood Risk Assessment (SFRA) shows it will be at increased risk of flooding from rivers or the sea during the development lifetime, you should make sure a Flood Risk Assessment (FRA) is done, and treat the site as if it were in Flood Zone 2 when deciding which advice you need to access.

Environmental Permit for Flood Risk Activities

In addition to any other permission(s) that you may have already obtained e.g. planning permission, you may need an environmental permit for flood risk activities (formerly known as Flood Defence Consent prior to 06 April 2016) if you want to do work:

- in, under, over or near a main river (including where the river is in a culvert)
- on or near a flood defence on a main river
- in the flood plain of a main river
- on or near a sea defence

For further information and to check whether a permit is required please visit:

<https://www.gov.uk/guidance/flood-risk-activities-environmental-permits>.

For any further advice, please email Blandford.frap@environment-agency.gov.uk.

Flood Defences

If there are any formal flood defences within 1km of the site boundary provided, a PDF containing flood defence information will be enclosed. This information has been taken from our Asset Information Management System database (AIMS). A data download can be accessed here: [AIMS Asset Bundle](#)

Please note that flood defences can increase water levels elsewhere e.g. through channels being restricted by defences, or because defences prevent flood water flowing back into the river channel.

Further Information

We advise that you also contact Wiltshire Council by email: drainage@wiltshire.gov.uk, or by phone: 0300 456 0105, based at: Bythesea Road, Trowbridge, Wiltshire, BA14 8JN as they may be able to provide further advice with respect to localised flooding and drainage issues.

Further details about the Environment Agency information supplied can be found on our website: <https://www.gov.uk/browse/environment-countryside/flooding-extreme-weather>

If you have requested this information to help inform a development proposal, then you should note the information on GOV.UK on the use of Environment Agency Information for FRAs:

<https://www.gov.uk/planning-applications-assessing-flood-risk>

<https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion>

We hope you find this information helpful. It is provided subject to the guidance below, which we strongly recommend you read.

Yours sincerely

Katy Barnes

Customer & Engagement, Wessex
Rivers House, East Quay, Bridgwater, Somerset, TA6 4YS
Email: wessexenquiries@environment-agency.gov.uk

Enc: Use of Environment Agency Information for Flood Risk Assessments (below)
EIR2025/16511 Defences Map & Data (if applicable)

Use of Environment Agency Information for Flood Risk Assessments (FRAs)

Important

Use of Environment Agency data: you should note that

1. Information supplied by the Environment Agency may be used to assist in producing a Flood Risk Assessment (FRA) where one is required, but the use of Environment Agency information does not constitute such an assessment on its own.
2. As part of your data request, we have provided all of the modelled data we hold for your location. Please note that some of our modelled information may have been produced for purposes other than for flood zone generation. This may mean that some of the modelled data you have been provided with has a lower confidence level, and has not been used in producing our flood map, nor definitively reflects the predicted flood water level at the property/development site scale. To check the suitability of the use of this information in your FRA please contact your local Partnership & Strategic Overview (PSO) team.
3. This information covers flood risk from main rivers and the sea, and you will need to consider other potential sources of flooding, such as groundwater or surface water runoff. The information produced by the Local Planning Authority and the Lead Local Flood Authority (LLFA) may assist in assessing other sources of flood risk.
4. Where a planning application requires a FRA and this is not submitted or deficient, the Environment Agency may well raise an objection.
5. For more significant proposals in higher flood risk areas, we would be pleased to discuss details with you ahead of making any planning application, and you should also discuss the matter with your Local Planning Authority.

Pre-Planning Advice from the Environment Agency

If you have requested this information to help inform a development proposal, then we recommend that you undertake a formal pre-application enquiry using the form available from our website:

Pre-application Preliminary Opinion:

<https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion>

Pre-application Charged Service:

<https://www.gov.uk/government/publications/planning-advice-environment-agency-standard-terms-and-conditions>

Depending on the enquiry we may also provide advice on other issues related to our responsibilities, including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.

Flood Risk Assessment (FRA) Guidance

You should refer to the Planning Practice Guidance of the National Planning Policy Framework (NPPF) and the Environment Agency's Flood Risk Standing Advice for information about Flood Risk Assessment (FRA) for new development in the different Flood Zones. These documents can be accessed via:

National Planning Policy Framework Planning Practice Guidance:

<http://planningguidance.planningportal.gov.uk/>

Environment Agency advice on FRAs:

<https://www.gov.uk/flood-risk-assessment-for-planning-applications#when-to-follow-standing-advice>

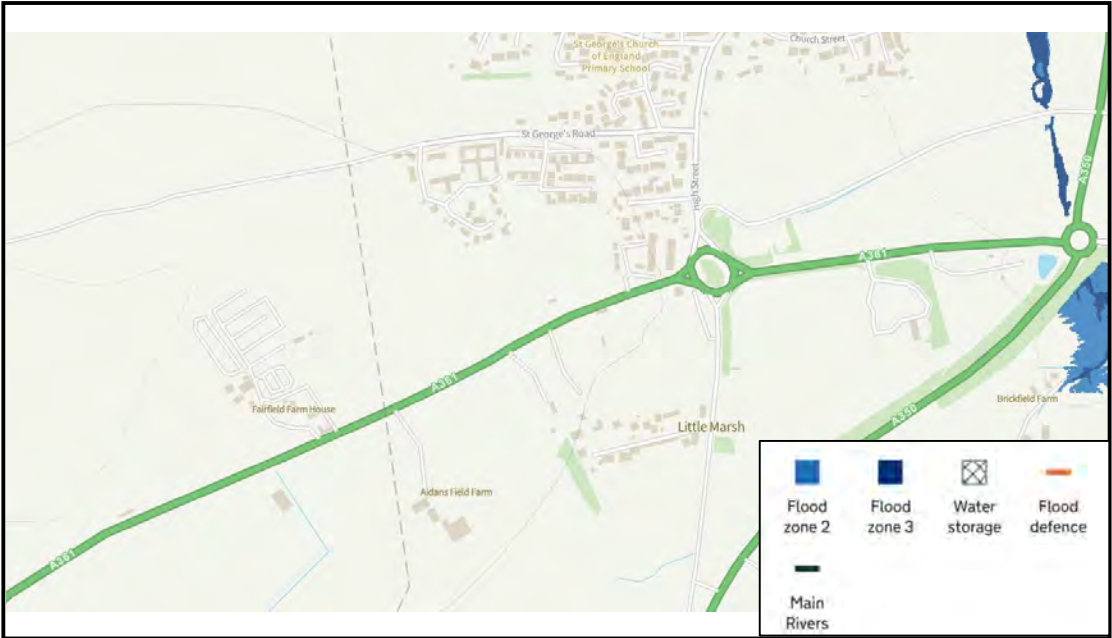
<https://www.gov.uk/government/publications/planning-applications-assessing-flood-risk>

NATIONAL FLOOD MAPPING

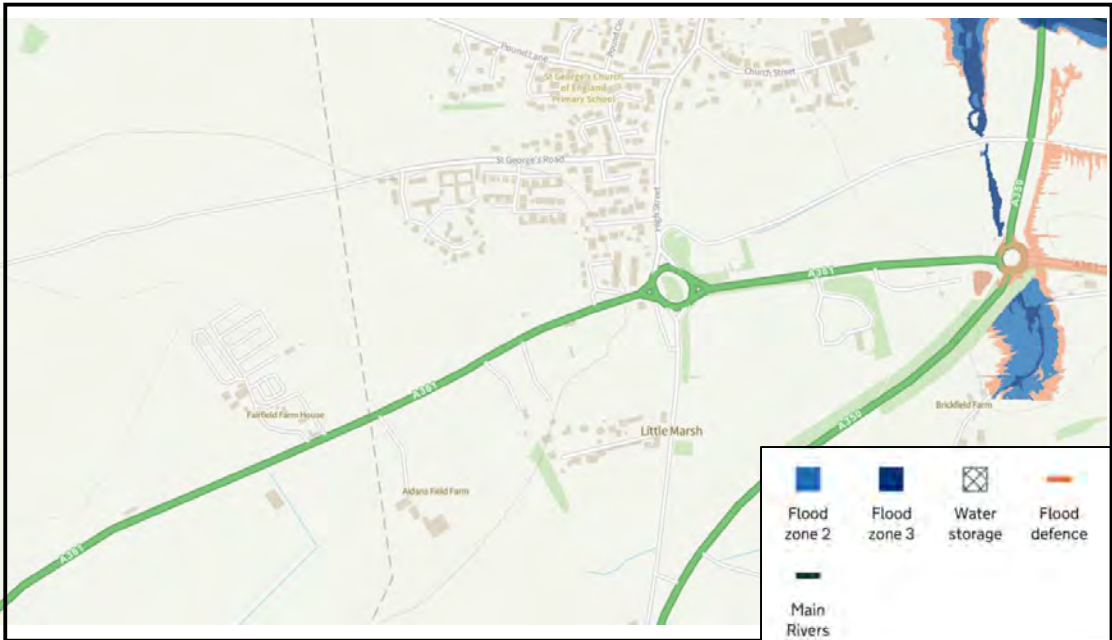


FLOOD MAP FOR PLANNING

Flood Zones (Present Day)



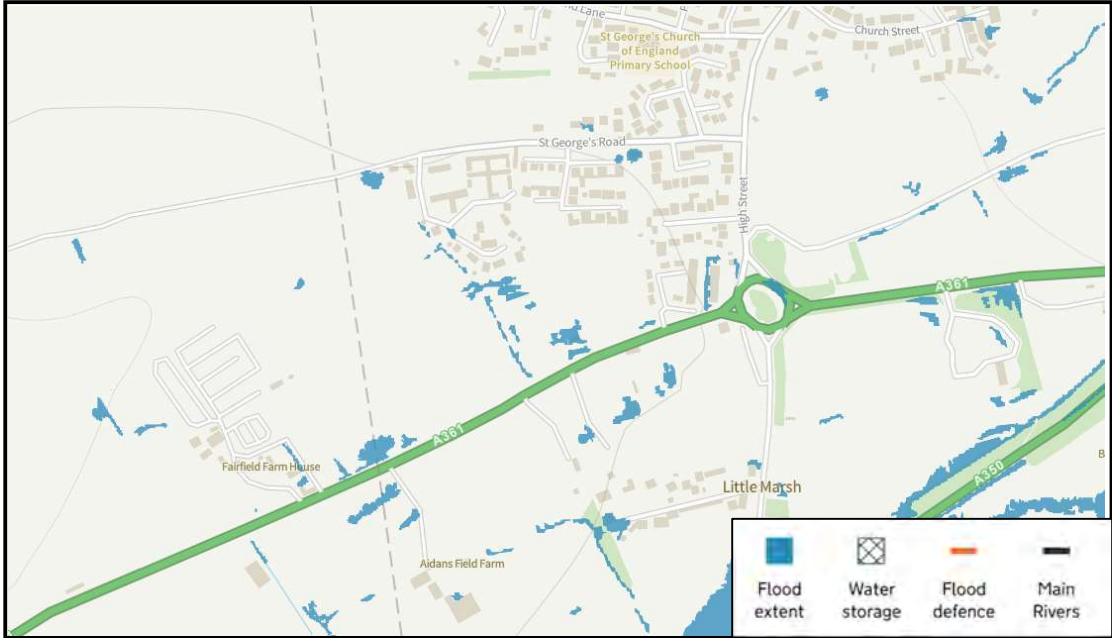
Flood Zones (2070 to 2125)



NATIONAL FLOOD MAPPING



Surface Water Annual Likelihood of Flooding – 1 in 30yr



Surface Water Annual Likelihood of Flooding – 1 in 100yr



NATIONAL FLOOD MAPPING



Surface Water Annual Likelihood of Flooding – 1 in 1000yr

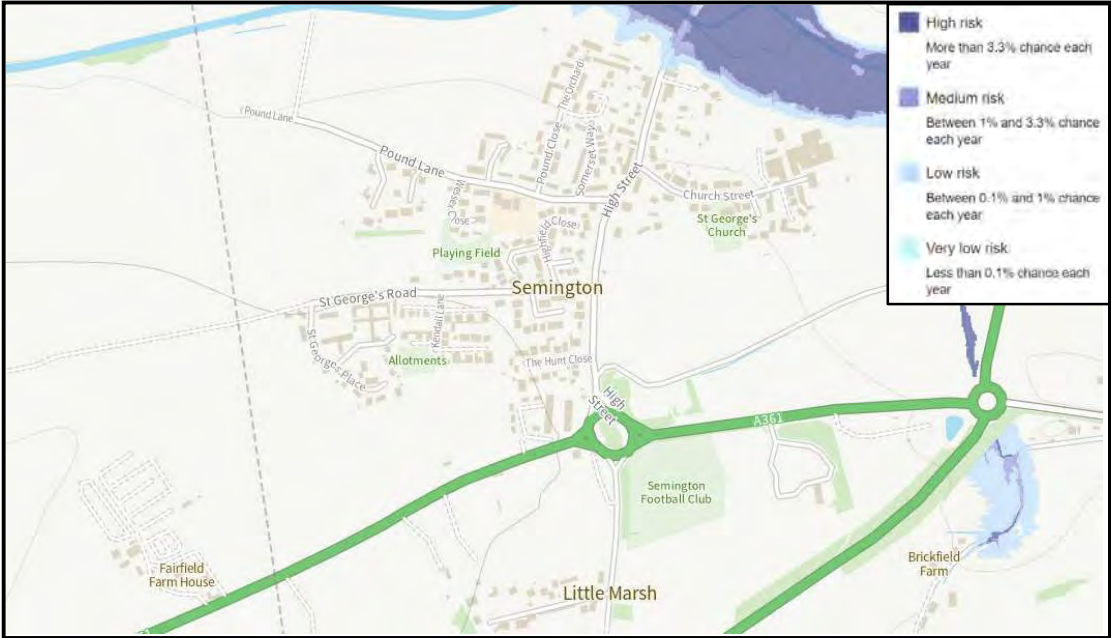


NATIONAL FLOOD MAPPING



LONG TERM RISK OF FLOODING MAPPING

Rivers or Sea – Current



Rivers or Sea – Future (2036-2069)



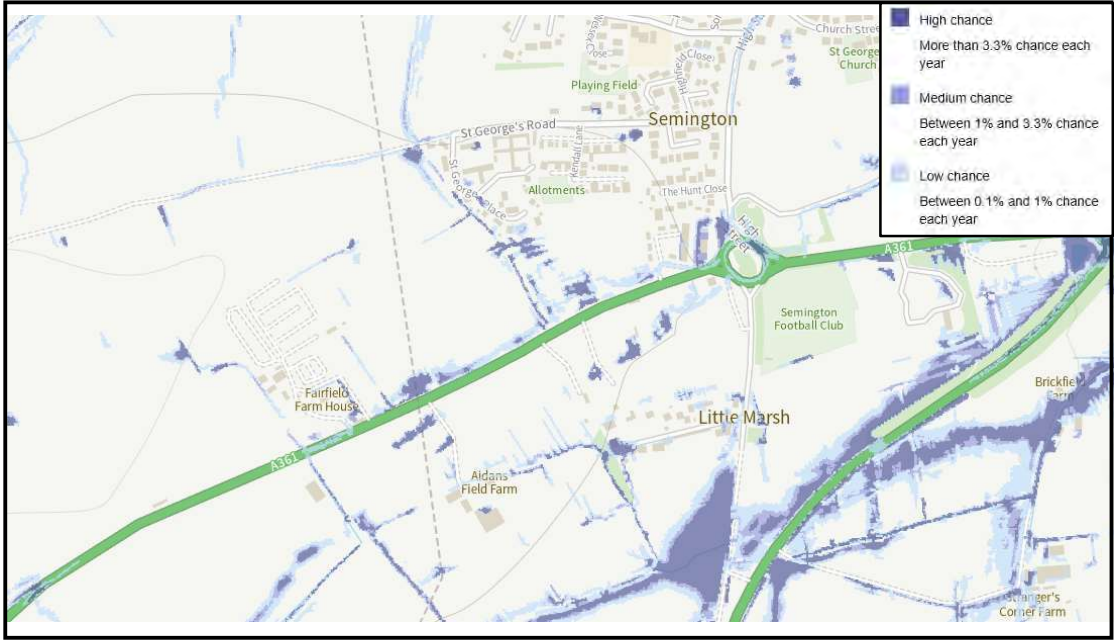
NATIONAL FLOOD MAPPING



Surface Water – Current



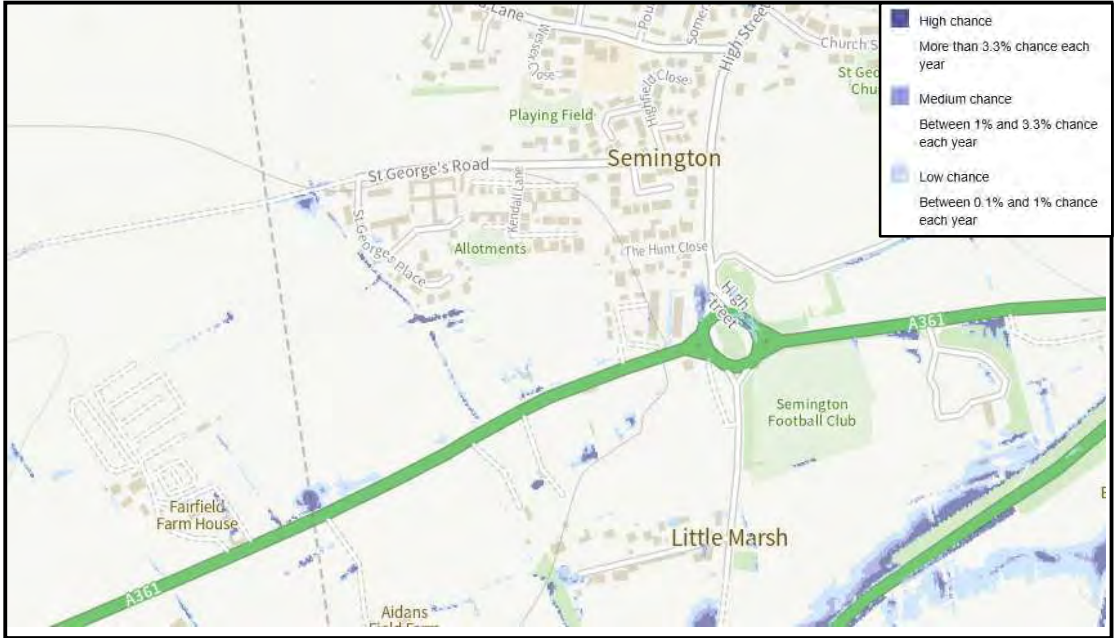
Future (2040-2060)



NATIONAL FLOOD MAPPING



Surface Water – Future Depth (To 20cm)



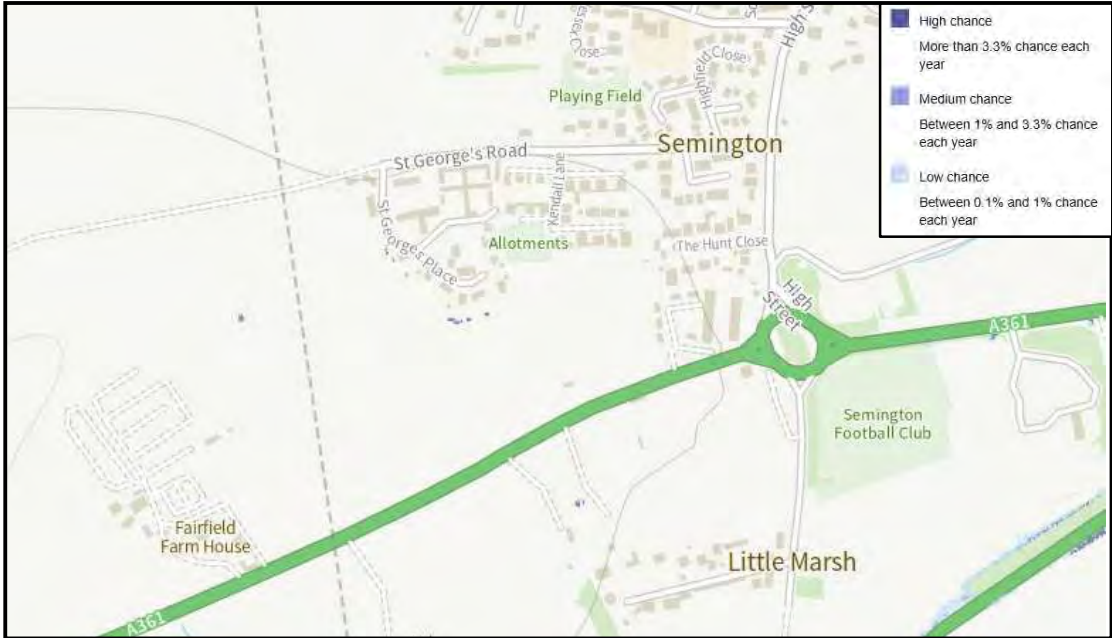
Surface Water – Future Depth (To 30cm)



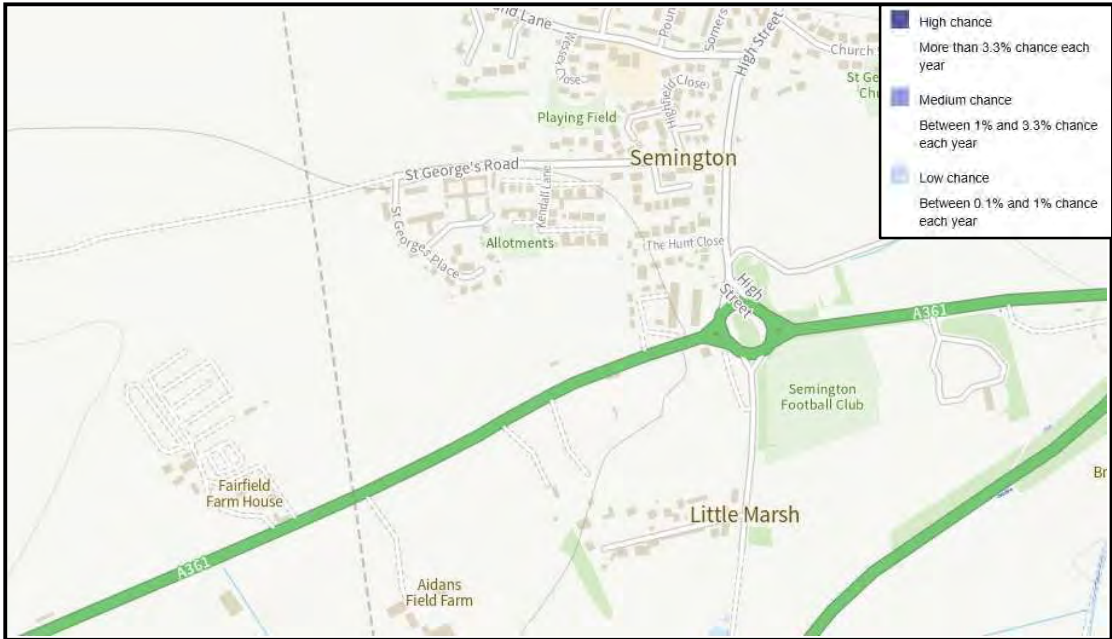
NATIONAL FLOOD MAPPING



Surface Water – Depth Extent (To 60cm)



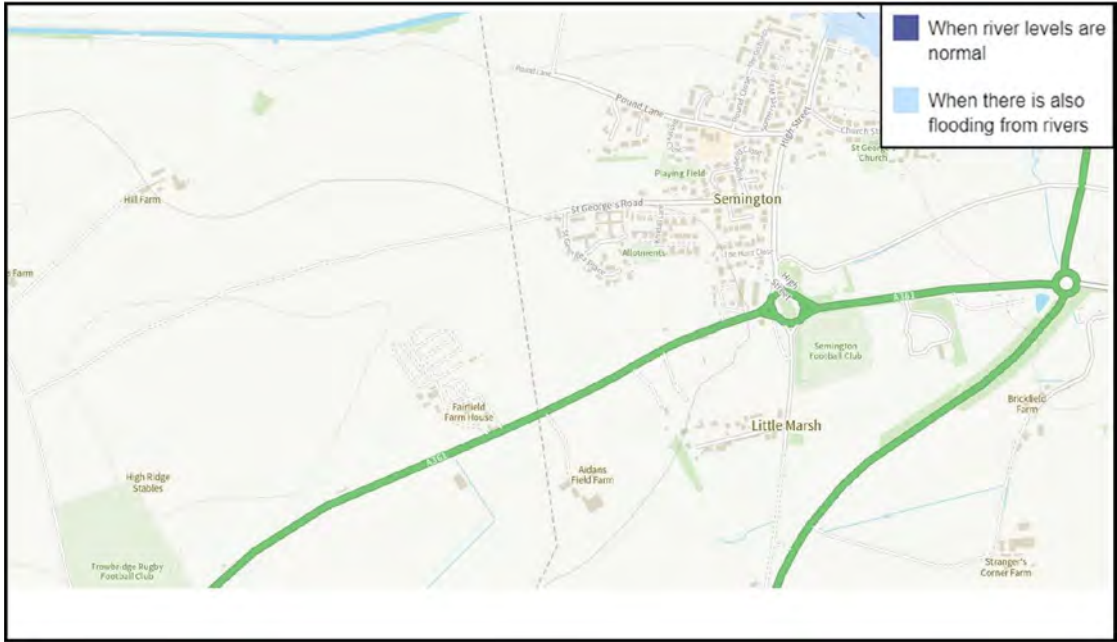
Surface Water – Future Depth (To 90cm)



NATIONAL FLOOD MAPPING

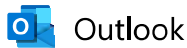


Long Term Flood Risk - Reservoirs



APPENDIX C: WW CORRESPONDENCE

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WW Dev Resp PL53247 Turnpike Close, Semington.

From Stella Davies <Stella.Davies@wessexwater.co.uk>

Date Mon 2025-07-07 10:49 AM

To Hollie Waud <holliewaud@betts-associates.co.uk>; Hayley Freeman <Hayley.Freeman@wessexwater.co.uk>

 1 attachment (1,020 KB)

WW Dev Map PL53247 Turnpike Close, Semington.pdf;

Thank you for your recent enquiry. From the information provided it is hard to determine the exact location and site boundary. Only high-level response is available at this stage. Developer is required to submit a new enquiry when housing numbers are known and masterplan is established as this will dictate supply demands.

Map of Wessex Water assets in the vicinity of the area is attached.

-
Foul Sewerage

Wessex Water will accommodate domestic type foul flows in the public foul sewer with connections made on a size for size basis. Developers fund the cost of connecting to the nearest 'size for size' sewer and Wessex Water will manage the sewer network to accommodate foul flows from granted development. We fund this through our infrastructure charging arrangements.

The developer should contact the local development team development.north@wessexwater.co.uk to agree proposals for the Section 104 adoption or Section 106 connection and submit details for technical review prior to construction. We will not accept foul connections from below ground level, foul flows from below ground level must be pumped to ground level prior to connection to the public foul sewer.

Please Note: No surface water runoff or land drainage will be accepted into the foul sewer either directly or indirectly.

Surface Water Drainage:

Surface water must be disposed of via the SuDS Hierarchy which is subject to Building Regulations and NPPF.

No surface water runoff, land drainage or ground water will be accepted into a public sewer that carries sewerage, either directly or indirectly.

The National Planning Policy Framework (NPPF) mandates that Sustainable Drainage Systems (SuDS) must be incorporated into new developments to manage surface water runoff, mitigate flood risks, and provide additional benefits, including enhanced water quality and green spaces. However, the proposed surface water drainage strategy fails to meet NPPF requirements regarding SuDS and sustainable development. Additionally, it omits compliance with the surface water discharge hierarchy.

In line with the drainage hierarchy outlined in Approved Document H of the Building Regulations, Planning Practice Guidance, and the necessity to address water scarcity, all surface water runoff should aim to be discharged as high up the following hierarchy as feasible:

- Rainwater reuse through harvesting or greywater recycling
- An adequate soakaway or other infiltration system

- A hybrid solution involving infiltration and discharge to a surface water body
 - Discharge directly to a surface water body (e.g., an ordinary watercourse)
 - Discharge to a surface water sewer, highway drain, or other drainage system
- Proposed surface water strategy to be agreed with LLFA.

Wessex Water statement on surface water discharge can be accessed via the following link:
<https://developerservices.wessexwater.co.uk/media/m4rjrfmg/wwds-dev063p-rainwater-drainage-policy.pdf>

Water Supply – Point of Connection

Water mains are available in the area.

Wessex Water can provide a point of connection for new water mains to be laid into the development site, either through a Section 41 agreement or a self-lay arrangement. Developers may connect to our water network on a 'size for size' basis at their cost and Wessex Water will undertake any network reinforcement that may be required to accommodate granted development, this is funded through our infrastructure charging arrangements.

We can liaise with you to agree the point of connection subject to your site layout.

For more details and guidance for applying to connect to our networks please see our website:
<https://www.wessexwater.co.uk/services/building-and-developing/building-multiple-properties-or-large-developments>

Note: These comments are based upon known circumstances prevailing at the time of writing. A review of the contents of this email is required where 18 months or more have elapsed since issue or in the light of significant changes likely to impact upon the response (e.g. changes in development numbers or phasing). Please email review requests to planning.liason@wessexwater.co.uk

Best Regards,

Stella Davies

Senior Planning Liaison Engineer



Wessex Water

Operations Centre, Claverton Down, Bath BA2 7WW

Web ytl.com | wessexwater.co.uk



Disclaimer

Response to: LPA e-mail: planning@sf.wiltshire.gov.uk FOA Gen Collins				
Planning Ref:	PL/2025/09736	Our Ref: ST86SE/ 475	Our Email:	planning.liaison@wessexwater.co.uk
Proposal:	Development of 48 dwellings			
Location:	Land Lying west of Semington Turnpike , Semington	DATE	14.01.2026	

Thank you for consulting us on the above planning application. Extracts from our records showing the approximate location of our apparatus within the vicinity of the site are attached.

We have reviewed documents submitted in support of the enquiry. We have following comments to make:

Existing Services

There are no known Wessex Water assets within the proposed site boundary.

A map showing all known Wessex Water Assets within the area of the proposed site is attached at the bottom of this response. Additional maps can be obtained from our website [Mapping enquiries \(wessexwater.co.uk\)](http://Mapping.enquiries.wessexwater.co.uk)

Foul Sewerage – Point of Discharge

Wessex Water will accommodate domestic type foul flows in the public foul sewer with connections made on a size for size basis, Developers fund the cost of connecting to the nearest 'size for size' sewer. The minimum diameter receiving sewer to meet size for size principles for a development of this magnitude is 150mm.

The nearest public foul sewer of suitable dimension or greater is the 150mm dia public foul sewer located to the east of the site in A361 Hilperton Road. Connection should be made on-line downstream of FWMH ref ST89606001, shown as 6001 on the attached plan. CL. 49.790; IL. Unknown

The point of connection to the public network is by application and agreement with Wessex Water.

Please Note: No surface water runoff, land drainage or ground water will be accepted into any public sewer that carries sewerage, either directly or indirectly.

Surface Water Drainage (rainwater falling onto, and running off, impermeable surfaces)

Surface water must be disposed of via the SuDS Hierarchy which is subject to Building Regulations and NPPF.

No surface water runoff, land drainage or ground water will be accepted into a public sewer that carries sewerage, either directly or indirectly.

The National Planning Policy Framework (NPPF) mandates that Sustainable Drainage Systems (SuDS) must be incorporated into new developments to manage surface water runoff, mitigate flood risks, and provide additional benefits, including enhanced water quality and green spaces.

In line with the drainage hierarchy outlined in Approved Document H of the Building Regulations, Planning Practice Guidance, and the necessity to address water scarcity, all surface water runoff should aim to be discharged as high up the following hierarchy as feasible:

- Rainwater reuse through harvesting or greywater recycling
- An adequate soakaway or other infiltration system
- A hybrid solution involving infiltration and discharge to a surface water body
- Discharge directly to a surface water body (e.g., an ordinary watercourse)
- Discharge to a surface water sewer, highway drain, or other drainage system

Wessex Water statement on surface water discharge can be accessed via the following link: :

<https://developerservices.wessexwater.co.uk/media/m4rjrfmg/wwwds-dev063p-rainwater-drainage-policy.pdf>

Review of the proposed Drainage Strategy by Betts Hydro dated November 2025 indicates discharge via soakaways. This is supported by Wessex Water as our records indicate that the site is in the area of high infiltration potential, additionally review of our layers indicates that nearby properties discharge via soakaways.

Drainage strategy based on soakaway discharge to be agreed with the LLFA.

Adoption

Wessex Water can adopt SuDS features as part of a surface water sewer network, SuDS schemes will be required to have full S104 technical approval and full planning approval before construction work begins. All drainage design requirements for the site (discharge rates, attenuation, climate change etc.) must be agreed, in consultation with the Local Planning Authority / Lead Local Flood Authority, prior to the submission of a formal S104 application. Adoption is by agreement with Wessex Water. More detailed information and guidance for adoptable standards can be found on our Developer Services Web Pages Sector guidance on sewerage and water adoption agreements ([wessexwater.co.uk](https://www.wessexwater.co.uk))

Water Supply

Development of this scale will require a minimum 90mm connection for new water mains to be laid into the development site, through a Section 41 agreement or a self-lay arrangement.

There are 6" and 8" water mains in A361 Hilpert Road.

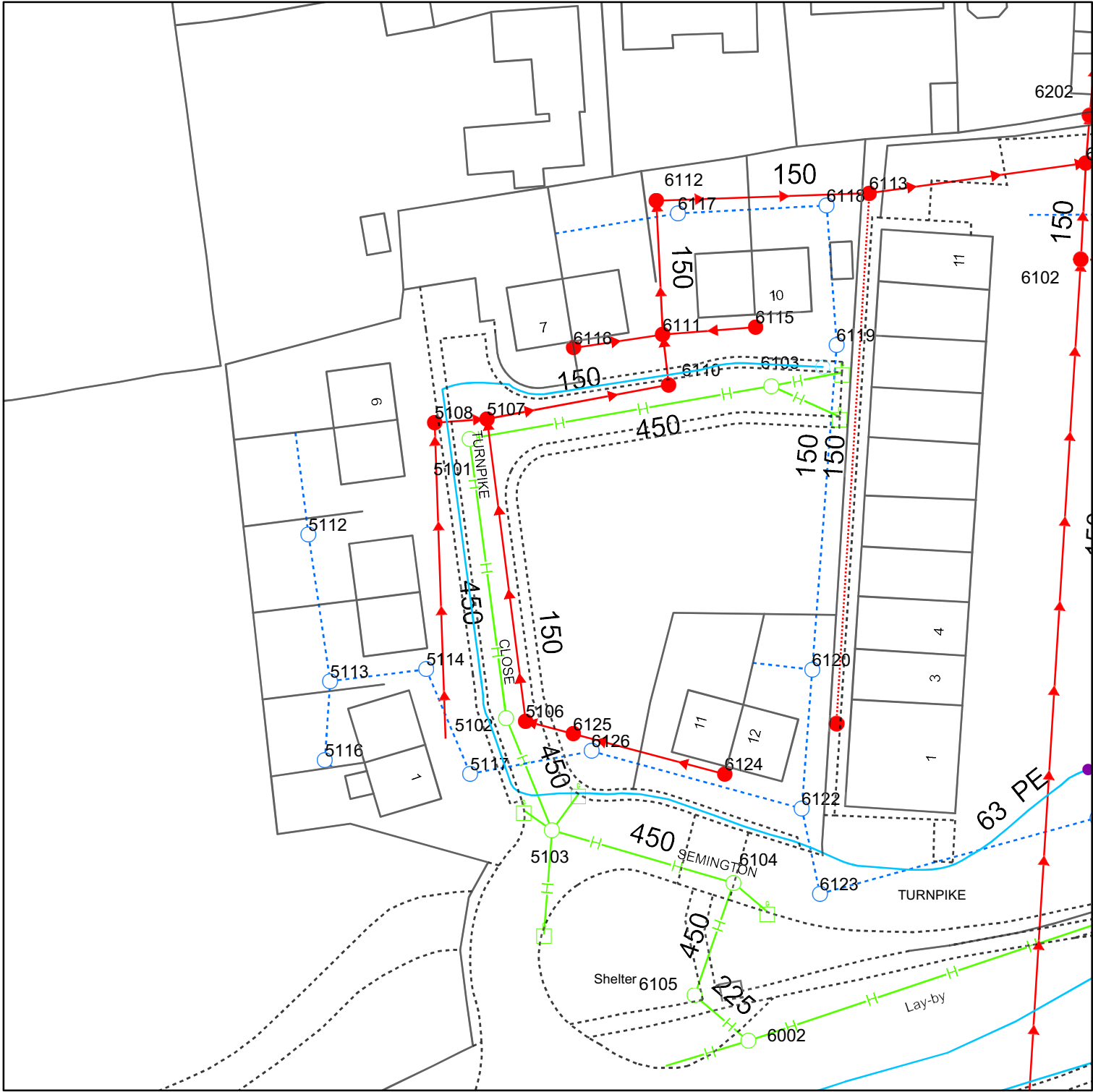
Developers may connect to our water network on a size for size basis at their cost and Wessex Water will undertake any network reinforcement that may be required to accommodate granted development, this is funded through our infrastructure charging arrangements

For more details and guidance for applying to connect to our networks please see our website:
<https://www.wessexwater.co.uk>.

We trust that you will find the mapping and initial comments of use.

Note: These comments are based upon known circumstances prevailing at the time of writing. A review of the contents of this email is required where 18 months or more have elapsed since issue or in the light of significant changes likely to impact upon the response (e.g. changes in development numbers or phasing). Please email review requests to planning.liaison@wessexwater.co.uk

Wessex Water Network Map

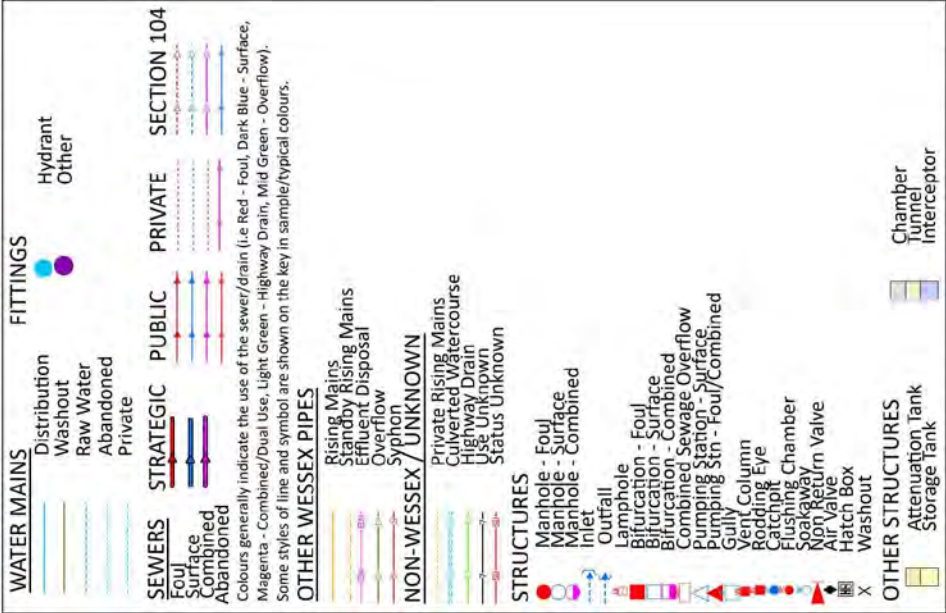


Reproduced from the Ordnance Survey map with the permission of the Controller of His Majesty's Stationery Office. © Crown copyright and database rights (2025) OS AC0000848304

WATER MAINS	SEWERS	STRATEGIC	PUBLIC	PRIVATE	SECTION 104	OTHER WESSEX PIPES	NON-WESSEX / UNKNOWN
Distribution	Foul	Surface	Public	Private	Section 104	Rising Mains	Private Rising Mains
Washout	Surface	Surface	Public	Private	Section 104	Standby Rising Mains	Private Rising Mains
Raw Water	Combined	Surface	Public	Private	Section 104	Effluent Disposal	Private Rising Mains
Abandoned	Abandoned	Surface	Public	Private	Section 104	EDM	Private Rising Mains
Private	Abandoned	Surface	Public	Private	Section 104	Overflow	Private Rising Mains
	Abandoned	Surface	Public	Private	Section 104	Syphon	Private Rising Mains
	Abandoned	Surface	Public	Private	Section 104	Syphon	Private Rising Mains
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WW Dev Map PL53247 Turnpike Close, Semington.



Information in this map is provided for identification purposes only. No warranty as to accuracy is given or implied. The precise route of pipe work may not exactly match that shown. Wessex Water does not accept liability for inaccuracies. Sewers and lateral drains adopted by Wessex Water under the Water Industry Schemes for Adoption of Private Sewers Regulations 2011 are to be plotted over time and may not yet be shown. In carrying out any works, you accept liability for the cost of any repairs to Wessex Water apparatus damaged as a result of your works. You are advised to commence excavations using hand tools only. Mechanical digging equipment should not be used until pipe work has been precisely located. If you are considering any form of works and pipe work is shown within the boundary of your property or a property to be proposed, you should contact Wessex Water's Apparatus Locating and Marking Service (ALMS) for advice on the proposed works. If you are proposing to build over or near Wessex Water's Apparatus you should contact the Developer Services Team, tel: 01225 526333 or e-mail: developer.enquiries@wessexwater.co.uk to discuss your proposals. Details of assets within Wessex Water's land ownership are unavailable through this service.

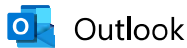


Date: 07/07/2025
Centre: 389698E, 159923N
Scale: 1:2,500
(When printed at A2 size)

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APPENDIX D: LPA/LLFA CORRESPONDENCE

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RE: Historic Flood Risk and Drainage Information Request / Turnpike, Semington

From Drainage <Drainage@wiltshire.gov.uk>
Date Fri 2025-07-04 10:30 AM
To Hollie Waud <holliewaud@betts-associates.co.uk>
Cc Drainage <Drainage@wiltshire.gov.uk>

Hi Hollie,

We are unable to provide information outside of the planning process, further information on pre-application advice is available on our website: [Pre-application advice - Wiltshire Council](#)

Best regards,
Emma

Emma Biggs IEng MICE
Drainage Engineer
Highways Asset Management and Commissioning



From: Hollie Waud <holliewaud@betts-associates.co.uk>
Sent: 03 July 2025 09:17
To: Drainage <Drainage@wiltshire.gov.uk>
Subject: Historic Flood Risk and Drainage Information Request

You don't often get email from holliewaud@betts-associates.co.uk. [Learn why this is important](#)

To whom it may concern,

(Turnpike Close, Semington)

Please could you confirm whether you have any information that you feel would be valuable to a Flood Risk Assessment and Drainage Management Strategy for the above site (location plan attached), including details of historical flooding and specific drainage requirements; this would be greatly appreciated. If there are any other specific requirements that you require in a scope of works for this site, please can you advise at this stage so that it can be fully incorporated into the proposals at an early stage.

Please do not hesitate to contact me on the details below to discuss further should you require additional information or clarification.

Kind Regards

Hollie Waud BSc(Hons)

Graduate Flood Risk Analyst

BETTS HYDRO

Consulting Engineers

Old Marsh Farm Barns, Welsh Road, Sealand, Flintshire, CH5 2LY

Chester +44 (0)1244 289041

holliewaud@betts-associates.co.uk

www.betts-associates.co.uk

CIVIL | STRUCTURAL | GEO-ENVIRONMENTAL | HYDROLOGY | FLOOD RISK MANAGEMENT

SUDS | STRUCTURAL SURVEYS | PARTY WALL DUTIES | INFILTRATION | GEOTECHNICAL

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To:	Gen Collins	From:	James Playfair
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Planning App Ref:	PL/2025/09736
Service Ref:	Drainage
Date:	3 rd February 2026

PROPOSAL

Outline planning permission: Some matters reserved

Outline planning application for up to 48 dwellings, a village shop (use class F2(a)) and associated green infrastructure (all matters reserved other than access).

SITE LOCATION

Land Lying west of Semington Turnpike, Semington

SUMMARY OF THE CONSULTEE POSITION

Object	
Holding Objection: Further information required	X
Support	
No comment	
No objection	
No objection subject to conditions	
Consultation not required	

APPLICATION DOCUMENTS REVIEWED

- Flood Risk Assessment
- Drainage Management Strategy

ASSESSMENT OF THE PROPOSAL

Context

In planning terms, flood risk refers to the potential for development to increase the likelihood or severity of flooding on-site or elsewhere, while drainage considerations relate to the capacity of the site and surrounding infrastructure to manage surface water runoff in a sustainable and effective manner.

The local planning authority must be satisfied that the proposed development will not increase flood risk, either on-site or elsewhere, and that surface water will be managed in a sustainable and coordinated manner.

Where necessary, planning conditions or legal agreements may be used to secure the implementation, maintenance, and monitoring of SuDS and other drainage infrastructure.

Assessment

The application has been supported with a Site-Specific Flood Risk Assessment (FRA). It should be noted that our comments below are reliant on the accuracy and completeness of the FRA and we do not take any responsibility for incorrect data or interpretation made by the authors.

The Wiltshire Council Strategic Flood Risk Assessment, Risk of Flooding from Rivers and the Sea (RoFRS) 2025, has indicated that the site is located within Flood Zone 1 and there has a low level of risk from fluvial flooding.

The site has, in places, a medium to high level of risk from surface water flooding.

The Wiltshire Council Strategic Flood Risk Assessment, [SFRA Data Explorer](#). The site has a medium level of risk from ground water flooding.

An intra-site sequential approach has been taken, and the proposed residential development avoids medium and high chance of surface water flooding areas where practical. Where residential development is required within these higher likelihood locations, it has been determined that these high chance areas are essentially localised low-spots onsite and as the catchments originate onsite, this risk can be adequately mitigated. Mitigation in the form of both appropriate levels design and implementation of formal surface water drainage infrastructure will be proposed.

There are three methods that have been reviewed for the management and discharge of surface water, these may be applied individually or collectively and should be applied in the order of priority as follows:

- 1. Discharge via infiltration;*
- 2. Discharge to watercourse; and*
- 3. Discharge to public sewer.*

It is proposed that a combination of infiltration-based features be utilised to serve the site including an infiltration basin serving the wider scheme but also plot level infiltration in the form of bio-filtration, permeable surfacing, raingardens and domestic soakaways (subject to design parameters and engineering constraints). Soakaway Testing (to BRE365) should be undertaken in due course to inform the detailed drainage design works by confirming onsite infiltration rates.

In relation to the FRA:

1. In paragraph 1.1.6 of the submitted FRA the applicant indicates that further assessment of overland flow routes through the development will be required in order

to demonstrate the development will not increase flood risk elsewhere. This has not been provided currently

2. The applicant's FRA indicates that significant portions of the site are at risk of pluvial flooding. The LLFA would encourage the LPA to consider on this basis, whether a sequential test to demonstrate how other sites at lower risk of flooding are reasonably available for development in line with NPPF. As this is a planning matter only, we will not speculate on whether the site passes the Sequential Test. The applicant themselves have identified the need for a Sequential Test to be completed in paragraph 6.1 of the submitted FRA
3. The applicant states that the LLFA have confirmed through correspondence in Appendix D that there are no records of historic flooding; this is incorrect - the correspondence in Appendix D states that the LLFA cannot provide such information outside of the formal pre-application process.

In relation to the Drainage Management Strategy:

4. The applicant assumes that 55% of the area of the site will become impermeable as a result of the proposed development (a total area of 1.138ha) but is calculating runoff based on a 1.75ha area. As permeable areas are often discounted from the hydraulic models (due to them not having formal drainage) we require the applicant to either use a rate of 1.138ha for the calculation of discharge rate or demonstrate that the permeable areas of the site are included within hydraulic modelling. Given that the applicant is currently proposing to discharge of surface water via infiltration, this is likely to not be a significant issue.
5. We note that the impermeable areas are an estimate at this stage and therefore these will need to be refined as part of the development of the detailed site proposals.
6. The applicant currently has not undertaken soakaway testing in accordance with BRE365, and therefore the indicative size of infiltration basin cannot be relied upon. As this may result in significant changes to the overall development layout, and potential financial viability for the developer, these tests should be completed and used to iterate the current drainage management strategy.
7. On paragraph 4.7.1 it is stated that there is an existing highways drain within Turnpike Close which could be a viable alternative; this statement is false. It cannot be assumed that the council will accept the additional discharge into the highways drain. In order to confirm this as a viable solution, the council would require full CCTV survey of the highways drain from point of connection to outfall, and supporting hydraulic modelling of the network in order to demonstrate that there would be no detriment. Without this information it cannot be assumed that an outfall to the highways drainage system is viable.
8. In Appendix K the applicant states that "The information reviewed is not exhaustive and has been accepted in good faith as providing representative and true data pertaining to site conditions" - this statement implies to the LLFA that the applicant is not certain of their strategy or fully understand the site conditions. We would therefore have to object to the application at this stage.

RECOMMENDATION

Holding objection as further information required

At this stage, a full assessment cannot be completed due to insufficient information. The following documents/information are required to enable a proper review of the drainage and flood risk aspects of the proposal:

Applicable to the entire proposal

- The applicant's FRA indicates that significant portions of the site are at risk of pluvial flooding. The LLFA would encourage the LPA to consider on this basis, whether a sequential test to demonstrate how other sites at lower risk of flooding are reasonably available for development in line with NPPF. As this is a planning matter only, we will not speculate on whether the site passes the Sequential Test. The applicant themselves have identified the need for a Sequential Test to be completed in paragraph 6.1 of the submitted FRA.
- The applicant states that the LLFA have confirmed through correspondence in Appendix D that there are no records of historic flooding; this is incorrect - the correspondence in Appendix D states that the LLFA cannot provide such information outside of the formal pre-application process.

Specific requirements aligned to the National Standard for SuDS

Standard 1: runoff destinations

- Post development runoff rates. These must also be in accordance with Wiltshire Council's 30% betterment policy update, which can be found [here](#).
- The strategy mimics the existing drainage characteristics of the site by retaining and utilising any existing drainage features.
- Evidence that the [surface water disposal hierarchy](#) has been applied and how all other options have been exhausted.
- If infiltration is proposed, it is implemented in manner that does not create an offsite impact, particularly if there are reports of groundwater flooding in the area.
- Consent for any outfalls from the proposed drainage systems into a public sewer or other drainage system not owned by the applicant - In paragraph 4.7.1 it is stated that there is an existing highways drain within Turnpike Close which could be a viable alternative; this statement is false. It cannot be assumed that the council will accept the additional discharge into the highways drain. In order to confirm this as a viable solution, the council would require full CCTV survey of the highways drain from point of connection to outfall, and supporting hydraulic modelling of the network in order to demonstrate that there would be no detriment. Without this information it cannot be assumed that an outfall to the highways drainage system is viable

Standard 2: interception

- The first 5mm of rainfall from the majority of rainfall events will be managed by interception features and will not result in runoff from the site to surface water or piped systems.
- SuDS source control measures to manage water quantity and maintain water quality will be implemented wherever possible, and throughout the management train, so the development is not reliant upon large attenuation features close to the points of discharge.
- A schedule and plan of interception features must be provided, showing their location, type, and contributing catchment.

Standard 3: management of extreme rainfall and flooding

- Existing flood flow routes through the site have been maintained or where they will be affected, adequate measures to intercept and safely control flows through the site have been provided to ensure flood risk is not increased elsewhere.
- Exceedance routes that minimise the risks to people and property.
- Evidence that the finished floor levels above the maximum predicted 100-year flood level or if no flooding is predicted, at a sufficient height above the SW drainage cover levels.
- The drainage strategy does not increase flood risk as a result of catchment transfer. In paragraph 1.1.6 of the submitted FRA the applicant indicates that further assessment of overland flow routes through the development will be required in order to demonstrate the development will not increase flood risk elsewhere. This is required

- All proposed drainage features are outside flood zones 2 and 3 and where they are adjacent to an ordinary watercourse, they are not located within the EA surface water flood maps. Where drainage features are located adjacent to flood zones 2 and 3, they must be above the 1 in 100 year plus climate change flood level. This information can be provided by the EA.
- Calculations and drawings for the drainage system design showing designated holding areas and conveyance routes based on no flooding on site for a 1 in 30 year plus climate change rainfall event. Furthermore, the applicant assumes that 55% of the area of the site will become impermeable as a result of the proposed development (a total area of 1.138ha) but is calculating runoff based on a 1.75ha area. As permeable areas are often discounted from the hydraulic models (due to them not having formal drainage) we require the applicant to either use a rate of 1.138ha for the calculation of discharge rate or demonstrate that the permeable areas of the site are included within hydraulic modelling. Given that the applicant is currently proposing to discharge of surface water via infiltration, this is likely to not be a significant issue.
- Calculations and drawings for the drainage system design showing designated holding areas and conveyance routes based on no flooding on site for a 1 in 100 year plus climate change rainfall event in respect to a building (including basement) or utility plant susceptible to water within the development.
- Calculations should include an allowance for increased surface water runoff, as a result of urban creep, in accordance with LASOO guidance.
- Hydraulic Models should set the MADD factor / additional storage volume factor to 0m³ / ha in order to prevent an overestimation of storage capacity in the proposed drainage network.
- If the drainage model includes runoff from the full site (both permeable and impermeable areas), the default Cv values of 0.75 (summer) and 0.84 (winter) may be used. If runoff is only included from impermeable catchment areas within the drainage model, a Cv value of 1 must be used.
- If attenuation tanks are proposed that an allowance for reduced attenuation volume due to silt ingress (as per Section 21.9.9 of the SuDS Manual CIRIA C753)

Standard 4: water quality

- The applicant must provide a pollution hazard assessment for all areas draining to SuDS features and demonstrate that the proposed treatment train achieves the required pollution mitigation indices for suspended solids, metals, and hydrocarbons, using the Simple Index Approach (CIRIA SuDS Manual C753, Table 26.3).
- At least two stages of SuDS treatment must be provided for runoff from high-risk areas (e.g., car parks, roads), and at least one stage for low-risk areas (e.g., roofs).
- Calculations and supporting plans must be submitted to evidence compliance.
- A maintenance plan must be provided to ensure the long-term effectiveness of water quality treatment.

Standard 5: amenity

- The applicant must provide details of how SuDS features will deliver amenity benefits, including integration with public open space, accessibility, safety, and opportunities for recreation or education. Plans should clearly show how SuDS contribute to the quality and usability of the site for future occupants and the wider community. Note this may require additional engagement with the council's urban design and landscape officers.

Standard 6: biodiversity

- The applicant must provide details of how SuDS features will deliver biodiversity benefits, including planting schedules, habitat creation, and connectivity to existing ecological networks. A biodiversity net gain statement should be included, demonstrating how the SuDS proposals contribute to site-wide ecological enhancement. Maintenance plans should support the long-term success of these features. Note this may require additional engagement with the council's ecology and landscape officers.

Standard 7: design of drainage for construction, operation, maintenance, decommissioning and structural integrity

- A clearly labelled drainage layout plan showing the pipe networks and any attenuation ponds. The plan should show any pipe node numbers referred to within the drainage calculations.
- A plan showing the cross sections and design of any attenuation pond and its components.
- Geotechnical factual and interpretive reports, including infiltration tests in accordance with British Research Establishment (BRE) Digest 365 – Soakaway Design. The applicant currently has not undertaken soakaway testing in accordance with BRE365, and therefore the indicative size of infiltration basin cannot be relied upon. As this may result in significant changes to the overall development layout, and potential financial viability for the developer, these tests should be completed and used to iterate the current drainage management strategy.

- Groundwater level monitoring (taking into account seasonal variations).
- The applicant is referred to Wiltshire Council's Surface Water Soakaway Guidance for the standards that must be met for planning approval and adoption of infiltration drainage features.
- Adequate measures during construction to control pollution to existing watercourses and groundwater.
- Details of how the proposed and existing drainage features on the site will be maintained and managed after completion with confirmation from the relevant authority that they will adopt any systems that are being offered for adoption.
- If access to the site is predicted to flood, an emergency plan must be agreed with Wiltshire Council. Guidance on the preparation of an emergency plan can be found [here](#).

In Appendix K the applicant states that "The information reviewed is not exhaustive and has been accepted in good faith as providing representative and true data pertaining to site conditions" - this statement implies to the LLFA that the applicant is not certain of their strategy or fully understand the site conditions. We would therefore have to object to the application at this stage.

INFORMATIVES

Prior to any works commencing on the upstream drainage network, the approved outfall structure and flow control device shall be fully constructed, tested, and commissioned. No discharge to the receiving system (including watercourses, waterbodies, sewers, or drains) shall occur until these measures are operational to ensure compliance with agreed discharge rates and prevent an increase in flood risk elsewhere.

RELEVANT PLANNING POLICY & GUIDANCE

National Planning Policy Framework (NPPF) [NPPF December 2024 Link](#)
Planning and Flood Risk (Paras 170–182)

Wiltshire Core Strategy – Adopted January 2015 [Wiltshire Core Strategy Link](#)
Core Policy 67 requires that all new development must address flood risk from all sources and not increase flood risk elsewhere. It supports the use of Sustainable Drainage Systems (SuDS) and requires that developments demonstrate how surface water will be managed sustainably.

Wiltshire Local Plan (emerging) [Local Plan Review Link](#)
Development must avoid high flood risk areas using the sequential approach. Proposals require a Flood Risk Assessment, Surface Water Drainage Strategy, and Groundwater Assessment where relevant. All schemes must include Sustainable Drainage Systems (SuDS), with major developments achieving a 30% reduction in runoff compared to greenfield rates, following the surface water discharge hierarchy.

Culverting and building over watercourses is discouraged, and natural drainage features should be retained or restored. Drainage strategies must ensure safety during extreme flood events (1-in-100-year + climate change) and provide safe access/egress. SuDS should also deliver biodiversity, amenity, and water quality benefits.

Supplementary Planning Documents

Wiltshire Council Drainage Betterment Strategy (2024) [SPD Link](#)
This technical guidance outlines expectations for surface water discharge hierarchy, attenuation, exceedance routes, water quality, and post-development monitoring.

Wiltshire Design Guide (March 2024) [SPD Link](#)
Includes principles of good design, including integration of SuDS and flood resilience.

Other Relevant Policies and Guidance

Planning Practice Guidance (PPG) – Flood Risk and Drainage [Guidance Link](#)
Covers detailed expectations for flood risk assessments, SuDS design, discharge hierarchy, sequential testing and climate change allowances.

Wiltshire SFRA (2024) [SFRA Link](#)
This document underpins the Sequential and Exception Test application and provides site screening evidence.

Section 19 Flood Investigation Reports [Section 19 Reports Link](#)
These documents summarise investigations into significant local flood incidents and establish what caused the flooding, how authorities responded, and actions needed to prevent future floods.

National Standards for Sustainable Drainage Systems (SuDS) June 2025 [Guidance Link](#)
Establishes mandatory criteria for runoff destination hierarchy, interception, flood resilience, water quality, amenity, biodiversity, and long-term maintenance for all new developments in England.

SuDS Manual (CIRIA C753)

This document sets out design principles, especially where attenuation, exceedance routing, and water quality are discussed.

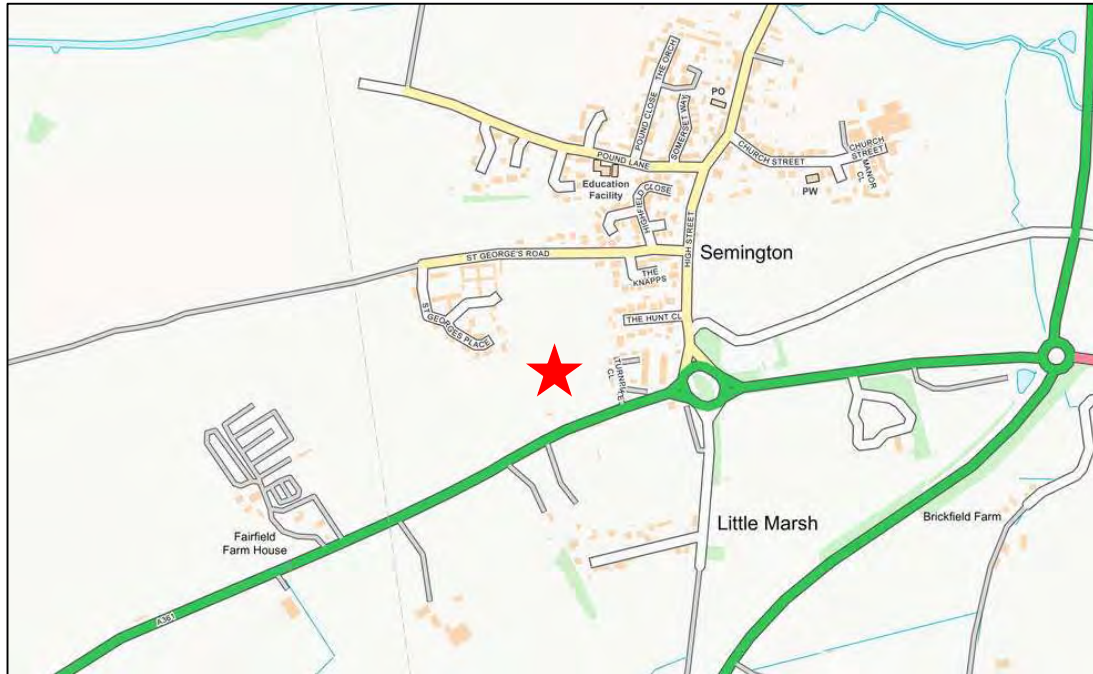
Infiltration drainage design must be supported by ground investigations, including infiltration testing in accordance with *British Research Establishment (BRE) Digest 365 – Soakaway Design*, and groundwater level monitoring that accounts for seasonal variation.

APPENDIX E: LOCATION PLAN

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LOCATION PLAN

Turnpike Close, Semington



OS X (Easting)	389391
OS Y (Northings)	160209
Nat Grid	ST893602 / ST8939160209
Nearest Post Code	BA14 6GY
Lat (WGS84)	N51:20:27 (51.340866519510634)
Long (WGS84)	W2:09:13 (-2.1536914267103158)
Lat,Long (WGS84)	51.340866519510634,-2.1536914267103158
Lat (OSGB36)	N51:20:25 (51.340367111065106)
Long (OSGB36)	W2:09:08 (-2.152322541451127)
Lat,Long (OSGB36)	51.340367111065106,-2.152322541451127



APPENDIX F: TOPOGRAPHICAL SURVEY

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SURVEY ORIENTATED TO REAL TIME GPS

NOTES AND AMENDMENTS
ONLY MANHOLES AND SERVICES VISIBLE AT SURFACE ARE SHOWN. ALL SERVICES ARE VERIFIED WITH LOCAL AUTHORITY RECORDS PRIOR TO WORK COMMENCING. ANY SERVICES NOT SHOWN ARE ASSUMED TO BE UNDERGROUND. TREE SPREADS ARE SYMBOLIC ONLY AND ARE REPRESENTATIVE OF THE AVERAGE SPREAD. THE DRIP LINE LAYER DENOTES THE TREES EXTREMITY

REVISIONS

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4	Spot height
5	Spot height
6	Spot height
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JLP Surveying

JLP Surveying & Construction Ltd. Registered Surveyors 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 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1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088,
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APPENDIX G: PROPOSED PLANNING LAYOUT

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Drawing Title: Illustrative Masterplan
Drawing Number: 2829 - URB - XX - XX - DR - UD - 9001
Project: Land at Turnpike Close, Semington, Wiltshire

Revision:
Scale:
Date:

03
1:1000 @ A3
18.11.2025



APPENDIX H: SURFACE WATER RUN-OFF CALCULATIONS

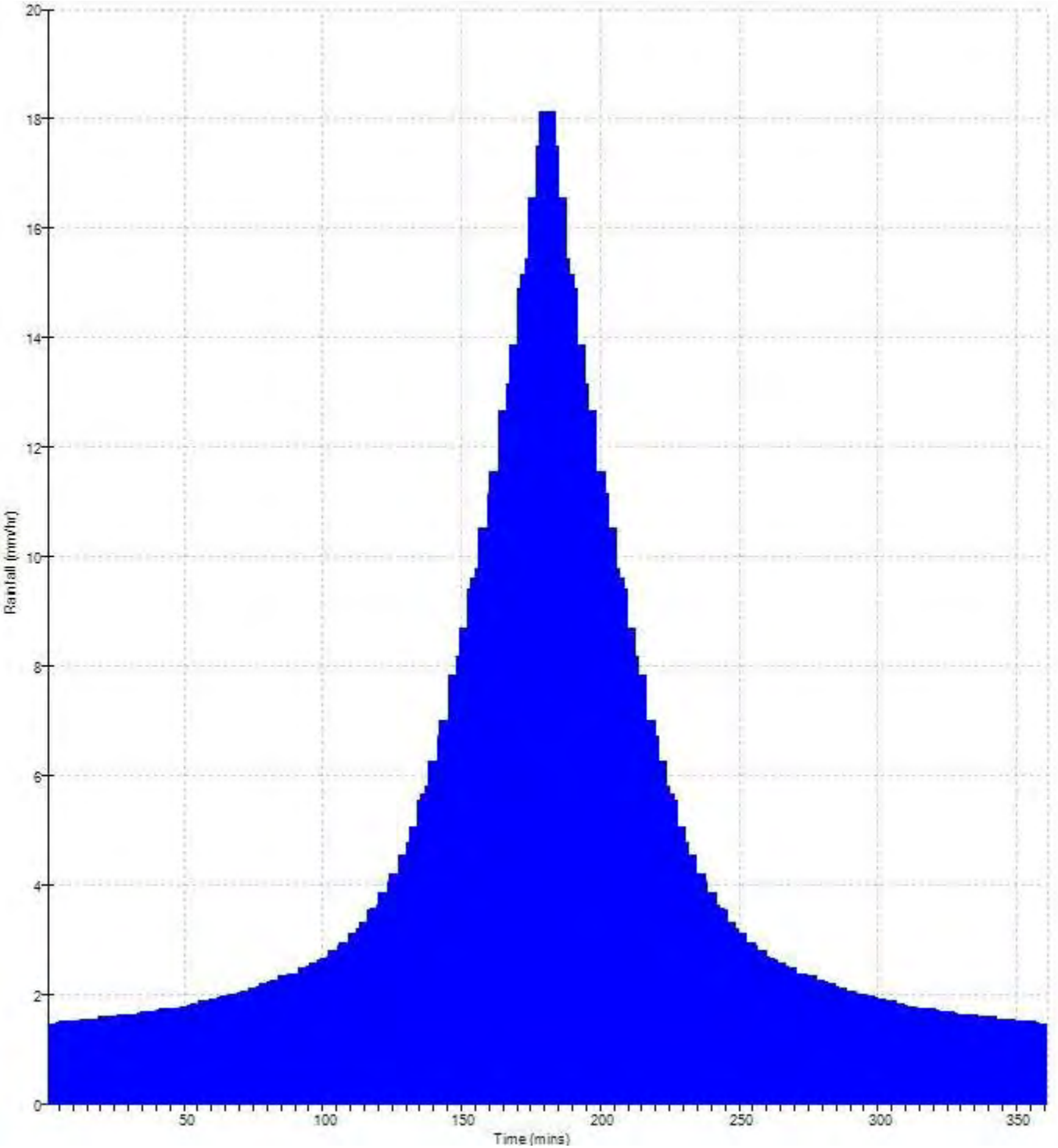
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Betts Associates Ltd		Page 1
Old Marsh Farm Barns Welsh Road Sealand Flintshire CH5 2LY	Turnpike Close Semington	
Date 15/10/2025	Designed by SM	
File	Checked by KH	
Micro Drainage	Network 2020.1	

Rainfall profile

Storm duration (mins) 360

FEH Data	
FEH Rainfall Version	2013
Site Location	GB 389474 160210 ST 89474 60210
Data Type	Point
Peak Intensity (mm/hr)	18.135
Ave. Intensity (mm/hr)	4.626
Return Period (years)	2.0



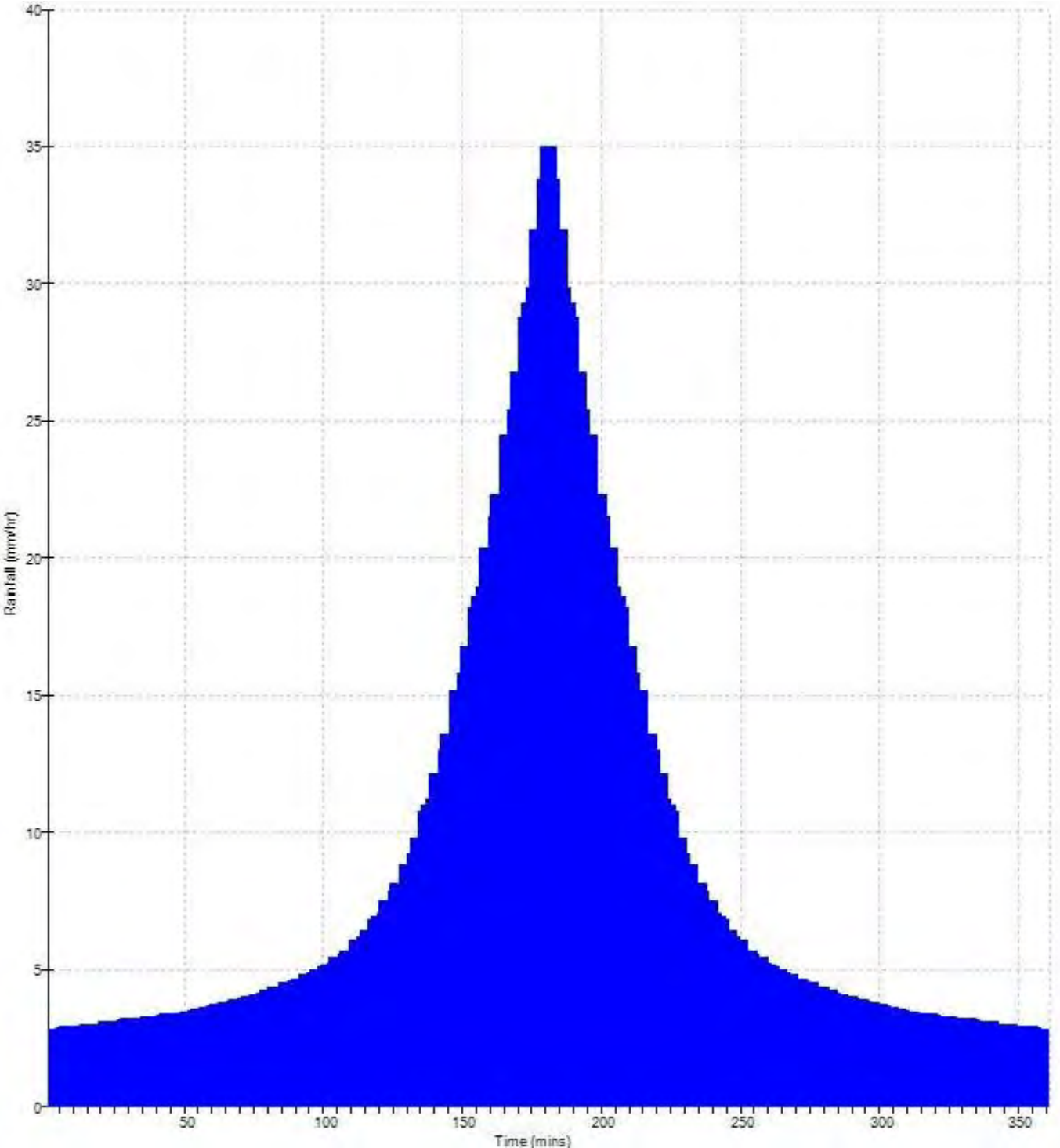
Betts Associates Ltd		Page 1
Old Marsh Farm Barns Welsh Road Sealand Flintshire CH5 2LY	Turnpike Close Semington	
	Designed by SM Checked by KH	
Date 15/10/2025	File	
Micro Drainage		Network 2020.1

Rainfall profile

Storm duration (mins) 360

FEH Data

FEH Rainfall Version	2013
Site Location	GB 389474 160210 ST 89474 60210
Data Type	Point
Peak Intensity (mm/hr)	35.046
Ave. Intensity (mm/hr)	8.940
Return Period (years)	30.0

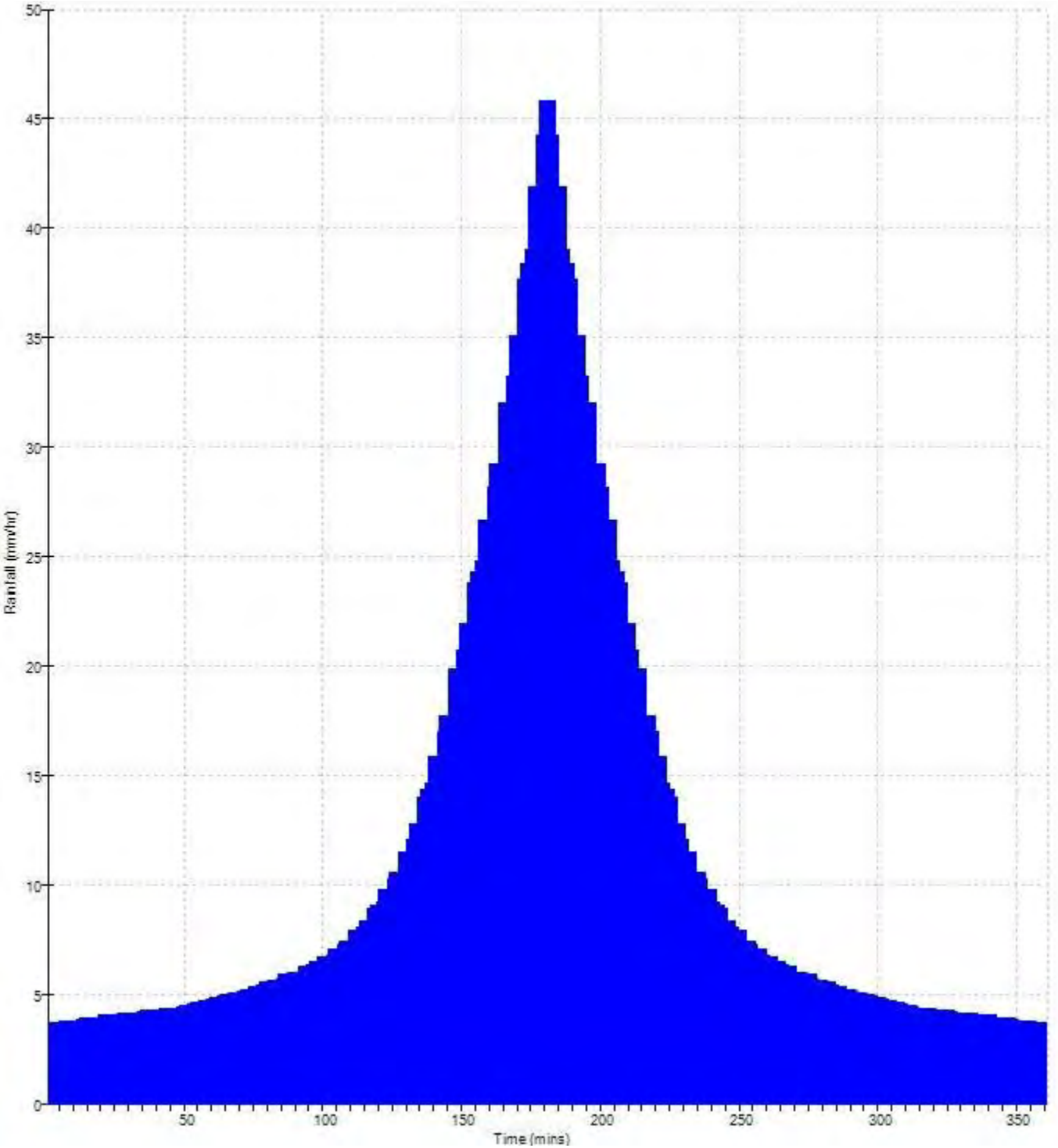


Betts Associates Ltd		Page 1
Old Marsh Farm Barns Welsh Road Sealand Flintshire CH5 2LY	Turnpike Close Semington	
Date 15/10/2025	Designed by SM	
File	Checked by KH	
Micro Drainage	Network 2020.1	

Rainfall profile

Storm duration (mins) 360

FEH Data	
FEH Rainfall Version	2013
Site Location	GB 389474 160210 ST 89474 60210
Data Type	Point
Peak Intensity (mm/hr)	45.883
Ave. Intensity (mm/hr)	11.705
Return Period (years)	100.0



Betts Associates Ltd		Page 1
Old Marsh Farm Barns Welsh Road Sealand Flintshire CH5 2LY	Turnpike Close	
Date 19/11/2025	Designed by SM	
File	Checked by HB	
Micro Drainage	Source Control 2020.1	

Greenfield Runoff Volume

FEH Data

Return Period (years)	2
Storm Duration (mins)	360
FEH Rainfall Version	2013
Site Location	GB 389474 160210 ST 89474 60210
Data Type	Point
Areal Reduction Factor	1.00
Area (ha)	1.750
SAAR (mm)	733
CWI	109.258
SPR Host	38.800
URBEXT (1990)	0.0000

Results

Percentage Runoff (%)	34.86
Greenfield Runoff Volume (m³)	169.356

Betts Associates Ltd		Page 1
Old Marsh Farm Barns	Turnpike Close	
Welsh Road		
Sealand Flintshire CH5 2LY		
Date 19/11/2025	Designed by SM	
File	Checked by HB	
Micro Drainage	Source Control 2020.1	

Greenfield Runoff Volume

FEH Data

Return Period (years)	30
Storm Duration (mins)	360
FEH Rainfall Version	2013
Site Location	GB 389474 160210 ST 89474 60210
Data Type	Point
Areal Reduction Factor	1.00
Area (ha)	1.750
SAAR (mm)	733
CWI	109.258
SPR Host	38.800
URBEXT (1990)	0.0000

Results

Percentage Runoff (%)	37.67
Greenfield Runoff Volume (m³)	353.602

Betts Associates Ltd		Page 1
Old Marsh Farm Barns Welsh Road Sealand Flintshire CH5 2LY	Turnpike Close	
Date 19/11/2025 File	Designed by Sm Checked by HB	
Micro Drainage	Source Control 2020.1	

Greenfield Runoff Volume

FEH Data

Return Period (years)	100
Storm Duration (mins)	360
FEH Rainfall Version	2013
Site Location	GB 389474 160210 ST 89474 60210
Data Type	Point
Areal Reduction Factor	1.00
Area (ha)	1.750
SAAR (mm)	733
CWI	109.258
SPR Host	38.800
URBEXT (1990)	0.0000

Results

Percentage Runoff (%)	39.76
Greenfield Runoff Volume (m³)	488.615

SURFACE WATER RUN-OFF CALCULATION SHEET



Development	Turnpike Close, Semington
Project No.	HYD1097

Revision	A	Completed by	SM
Date	18/11/2025	Checked by	HB

Areas			
Total Site	2.156	ha	
Development Area ¹	1.750	ha	
Existing Impermeable		ha	
Existing Impermeable ²		ha	
Existing Pervious	2.156	ha	
Existing Pervious ²	0.000	ha	
Proposed total impermeable	1.138	ha	65%
*55% impermeable post dev. Plus 10% allowance for urban creep.			

Catchment Characteristics			
SAAR	733	mm	
SPR	0.388		
BFI19	0.499		
i_1	18.1	mm/hr	d_1 24.1 mm
i_{30}	35.0	mm/hr	d_{30} 52.1 mm
i_{100}	45.9	mm/hr	d_{100} 67.0 mm

Run-off Rates - FEH Method			
Pre-development			
Impermeable -----	1yr	0.0	l/s
	30yr	0.0	l/s
	100yr	0.0	l/s
	50mm/hr ³	0.0	l/s
Pervious ⁴ -----	1yr	4.6	l/s
	30yr	11.2	l/s
	100yr	14.0	l/s
	QBar ⁵	5.8	l/s
Total -----	1yr	4.6	l/s
	30yr	11.2	l/s
	100yr	14.0	l/s
Post-development (without control)			
Impermeable ⁶ -----	1yr		l/s
	30yr	110.7	l/s
	100yr+45%CC	203.0	l/s

Volumes			
Pre-development			
Impermeable -----	1yr	0.0	cu.m
	30yr	0.0	cu.m
	100yr	0.0	cu.m
Pervious ⁴ -----	1yr	169.4	cu.m
	30yr	353.6	cu.m
	100yr	488.6	cu.m
Total -----	1yr	169.4	cu.m
	30yr	353.6	cu.m
	100yr	488.6	cu.m
Post-development			
Impermeable ⁶ -----	1yr	274.4	cu.m
	30yr	592.2	cu.m
	100yr	761.8	cu.m

1/ The 'development area' removes areas of POS and/or landscaped areas of the wider site that are to remain as existing.
 2/ On occasion the existing impermeable area cannot be evidenced to connect and a reduction is applied.
 3/ 50mm/hr is used for BRegs calculations and often used by Water Companies when considering allowable post-development rates of discharge. (Rational Method)
 4/ The Greenfield rates and of run-off have been calculated using the UK SUDS Calculator
 5/ QBar is the estimated flood flow for the 2.33yr return period event and is often used as a post-development rate restriction.
 6/ Post-development run-off is only considered from the impermeable area when the proposed post-development impermeable area >50% in accordance with the EA Guidance Preliminary rainfall runoff management for developments (W5-074/A/TR1/1 rev E (2012)).

NB. The catchment characteristics are from the FEH catchment, the UK SUDS Calculator and Microdrainage.
 NB. The rainfall intensities and depths are calculated for the 6hr duration rainfall event (peak summer intensity)

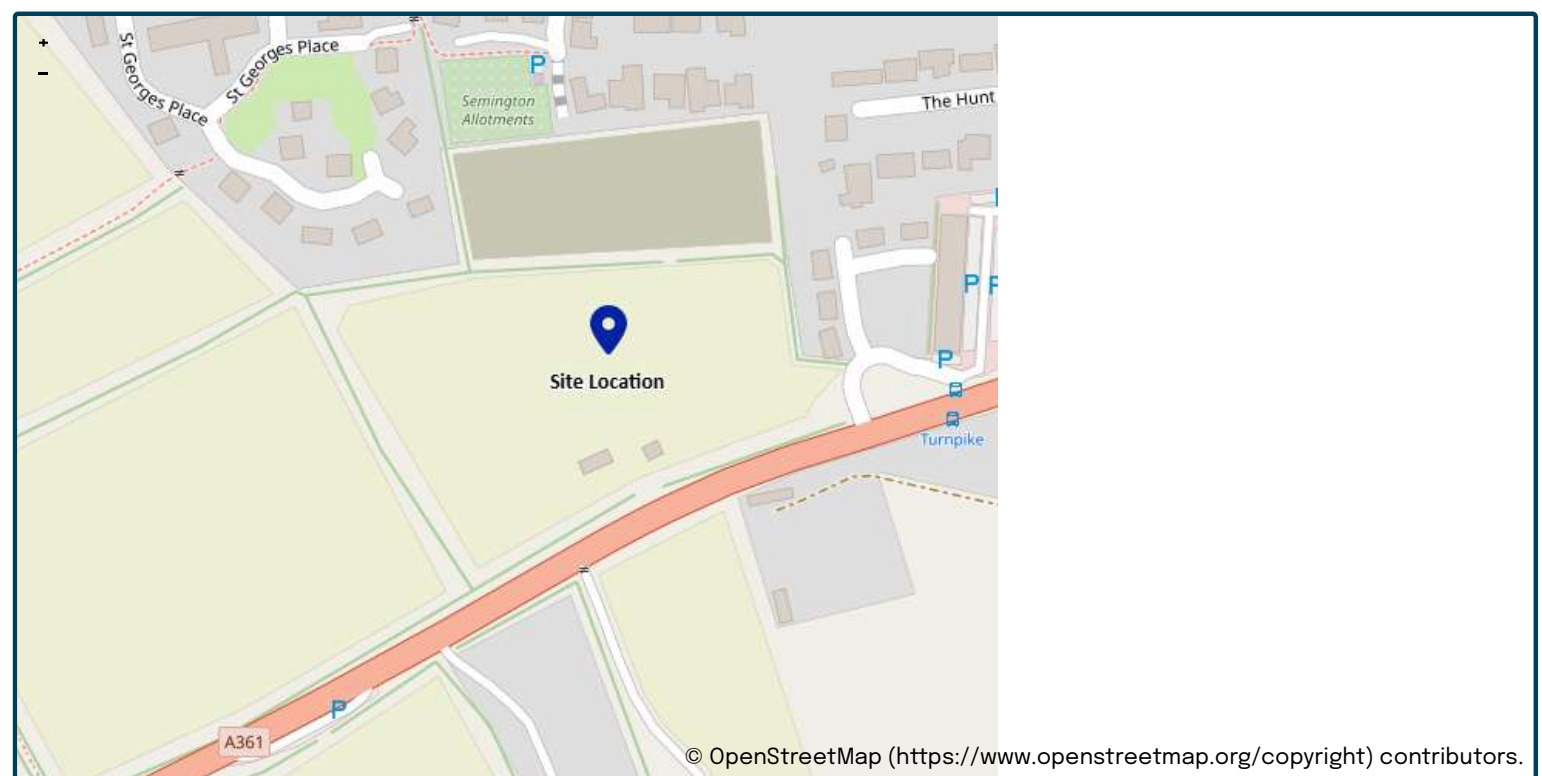
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Project details

Date	15/10/2025
Calculated by	SM
Reference	HYD1097
Model version	2.2.1

Location

Site name	Turnpike Close
Site location	Semington



Site easting (British National Grid)	389474
Site northing (British National Grid)	160114

Site details

Total site area (ha)	1	ha
----------------------	--------------------------------	----

Greenfield runoff

Method

Method	FEH statistical (2025)
--------	------------------------

FEH statistical (2025)

	<u>My value</u>	<u>Map value</u>
SAAR9120 (mm)	733	mm
BFIHOST19scaled	0.499	
QMed-QBar conversion	1.075	1.075
QMed (l/s)	3.1	l/s
QBar (FEH statistical 2025) (l/s)	3.3	l/s

Growth curve factors

	<u>My value</u>	<u>Map value</u>
Hydrological region	8	8
1 year growth factor	0.78	
2 year growth factor	0.93	
10 year growth factor	1.49	
30 year growth factor	1.95	
100 year growth factor	2.43	
200 year growth factor	2.78	

Results

Method	FEH statistical (2025)
Flow rate 1 year (l/s)	2.6
Flow rate 2 year (l/s)	3.1
Flow rate 10 years (l/s)	4.9
Flow rate 30 years (l/s)	6.4
Flow rate 100 years (l/s)	8.0
Flow rate 200 years (l/s)	9.1

Please note runoff estimation is subject to significant uncertainty. Results are therefore normally reported to only 1 decimal place. Where 2 decimal places are provided, this does not indicate accuracy to this level, it has been adopted to prevent ‘zero’ figures from being reported. Outputs less than 0.01 l/s are reported as 0.01 l/s.

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.2.1) developed by HR Wallingford and available at uksuds.com (<https://www.uksubs.com/>). The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at uksuds.com/terms-conditions (<https://www.uksubs.com/terms-conditions>). The outputs from this tool have been used to estimate Greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

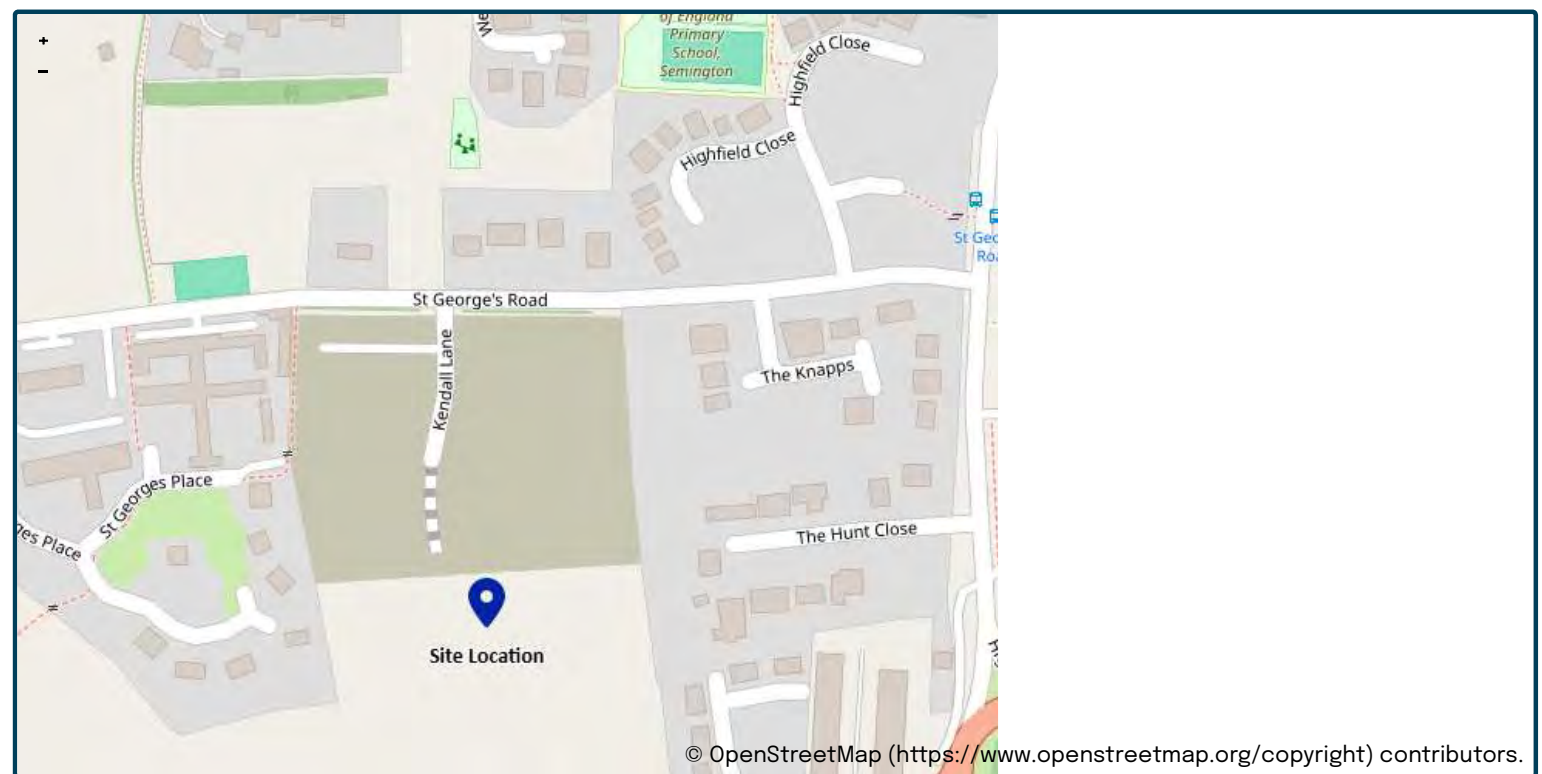
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Project details

Date	25/07/2025
Calculated by	HW
Reference	HYD1097
Model version	2.0.1

Location

Site name	Turnpike Close
Site location	Semington



Site easting	389477
Site northing	160192

Site details

Total site area (ha)	1	ha
----------------------	--------------------------------	----

Greenfield runoff

Method

Method	IH124		
IH124			
	<u>My value</u>	<u>Map value</u>	
SAAR (mm)	702 mm		702
How should SPR be derived?	Estimate using BFI		
BFIHOST	0.499		
SPR	0.388		
QBar (IH124) (l/s)	3.2 l/s		

Growth curve factors

	<u>My value</u>	<u>Map value</u>	
Hydrological region	8		8
1 year growth factor	0.78		
2 year growth factor	0.93		
10 year growth factor	1.49		
30 year growth factor	1.95		
100 year growth factor	2.43		
200 year growth factor	2.78		

Results

Method	IH124	
Flow rate 1 year (l/s)	2.5	l/s
Flow rate 2 year (l/s)	3	l/s
Flow rate 10 years (l/s)	4.8	l/s
Flow rate 30 years (l/s)	6.2	l/s
Flow rate 100 years (l/s)	7.8	l/s
Flow rate 200 years (l/s)	8.9	l/s

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.0.1) developed by HR Wallingford and available at [uksuds.com](https://www.uksuds.com) (<https://www.uksuds.com/>). The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at [uksuds.com/terms-conditions](https://www.uksuds.com/terms-conditions) (<https://www.uksuds.com/terms-conditions>). The outputs from this tool have been used to estimate Greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

APPENDIX I: PRELIMINARY DRAINAGE STRATEGY

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DO NOT SCALE

Legend:

- Planning Application Boundary
- Public foul water Sewer
- Proposed Foul Water Sewer
- Proposed Surface Water
- Connection
- Indicative Infiltration Basin

REV	DATE	BY	DESCRIPTION	CHK
C	10/03/26	SM	FOUL POC UPDATED	KH
B	19/11/25	SM	UPDATED LAYOUT	KH
A	16/10/25	SM	PRELIMINARY FOR ISSUE	KH
				CHK

DRAWING STATUS:

Unit 6, Old Marsh Farm Barns, Welsh Road, Sealand, Flintshire CH5 2LY
Tel: 01244 288178
enquiries@betts-associates.co.uk

HSL | HOLLINS STRATEGIC LAND

PROJECT: TURNPIKE CLOSE SEMINGTON

TITLE: PRELIMINARY DRAINAGE STRATEGY

DATE: MAR '26	SCALE @ SIZE: 1:1000@A3	DRAWN: SM	CHECKED: KH
PROJECT NO: HYD1097	DRAWING NO: 105	REV: C	

APPENDIX J: CONVEYANCE EXTRACT

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a larger transaction or of a series of transactions in respect of which the amount or value or the aggregate amount or value of the consideration exceeds Thirty nine thousand pounds _____

IN WITNESS whereof the vendors have hereunto set their hands and seals and the Council has caused its Common Seal to be hereunto affixed the day and year first before written _____

FIRST SCHEDULE above referred to

(1) Full free and uninterrupted passage of water soil and drainage to and from all parts of the vendors retained land together with the right to tie into the sewers and drains to be constructed and passing through the land at points F2 or F3 marked on the plan annexed hereto together also with the right in common with any other person having the like right to use all sewers and drains now passing or within eighty years from the date hereof to pass under any portion of the land with power at any time on giving previous reasonable notice to enter upon the land to tie in as aforesaid and to inspect repair cleanse and maintain and renew such connections as may be made so that the person or persons entering shall make good all damage to the surface occasioned thereby _____

(2) Full and unrestricted right of access at all times and for all purposes over the access road to be constructed by the Council over the land between the points X and Y marked on the plan annexed hereto together with the right within eighty years of the date hereof to create a point of entry on to the said access road from the vendors retained land of such reasonable width as may be required to accommodate any future permitted use to which such retained land may be put _____

SECOND SCHEDULE above referred to

(1) Without prejudice to clause 2 of the First Schedule hereto the Council shall within six months from the date hereof at its own expense and in a proper and workmanlike manner and of a pattern to be approved by the vendors erect and for ever thereafter maintain and keep in good repair a stock-proof fence between four feet six inches and five feet in height along the western boundary of the land and the access road to be constructed thereto together with a pair of gates ten metres in width between the points A and B marked on the plan annexed hereto _____

THIRD SCHEDULE above referred to

FIRST PART

THE VENDORS

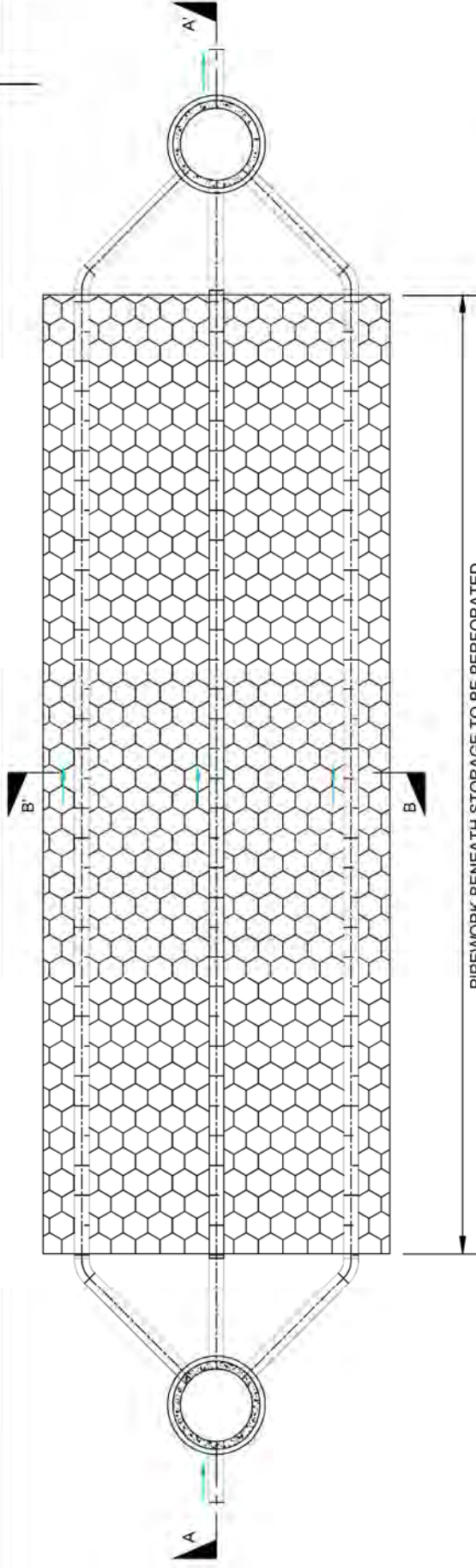
: Leonard Michael Noad of Manorfield Seend near Melksham in the County of Wilts and Rodney Frank Moody of Huckshards The Gravel Holt Trowbridge aforesaid and Michael Leonard Dyson of Streamside Norton Lacock aforesaid and David William Lock of Quantock 78 Wessington Park Calne aforesaid _____

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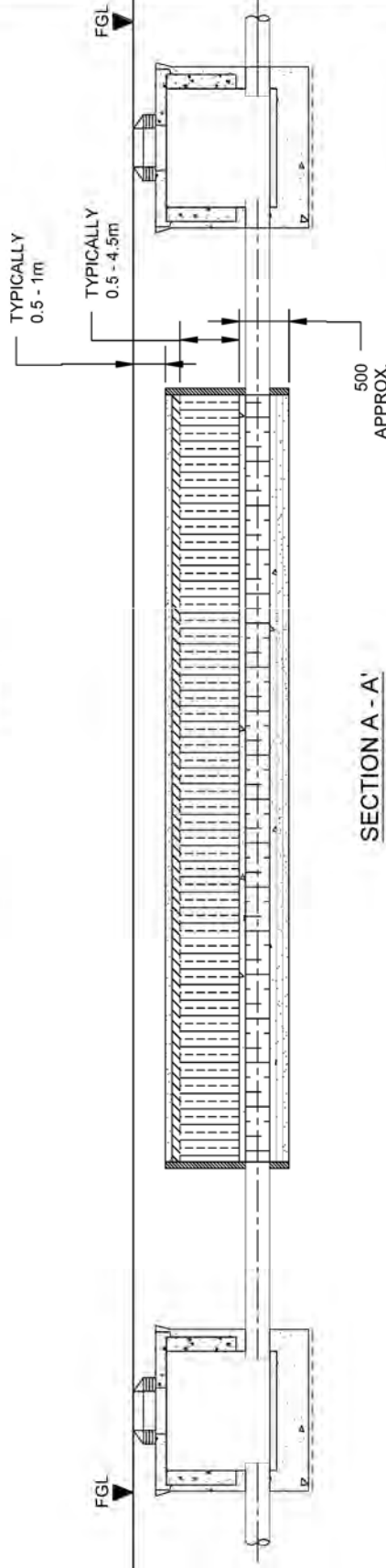
APPENDIX K: SUDS EXAMPLES

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DO NOT SCALE

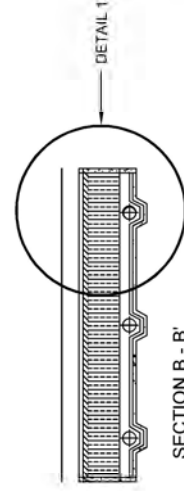


PLAN

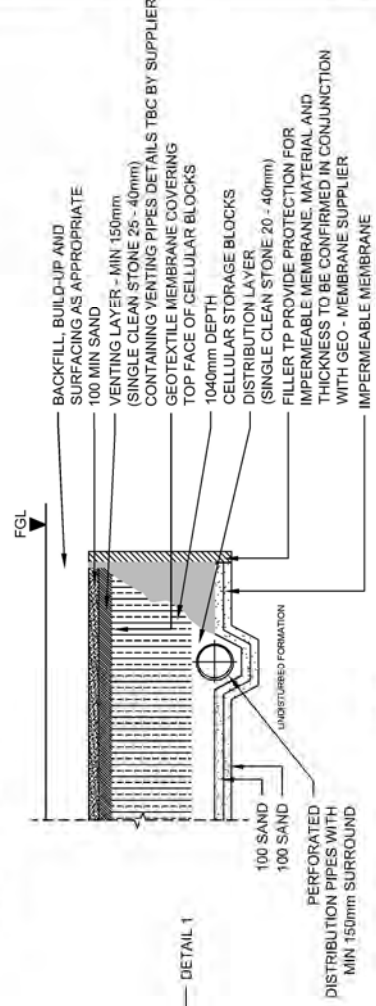


SECTION A - A'

ALL DIMENSIONS AND DEPTHS DEPENDENT ON REQUIRED VOLUME AND LOCAL GROUND CONDITIONS



SECTION B - B'

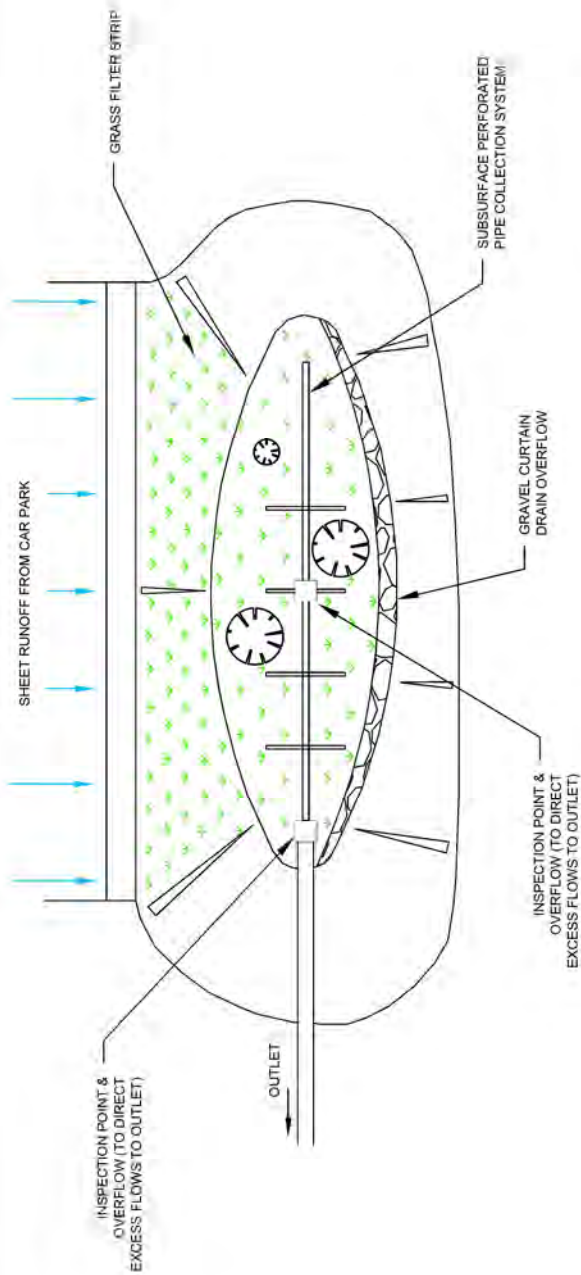


DETAIL 1

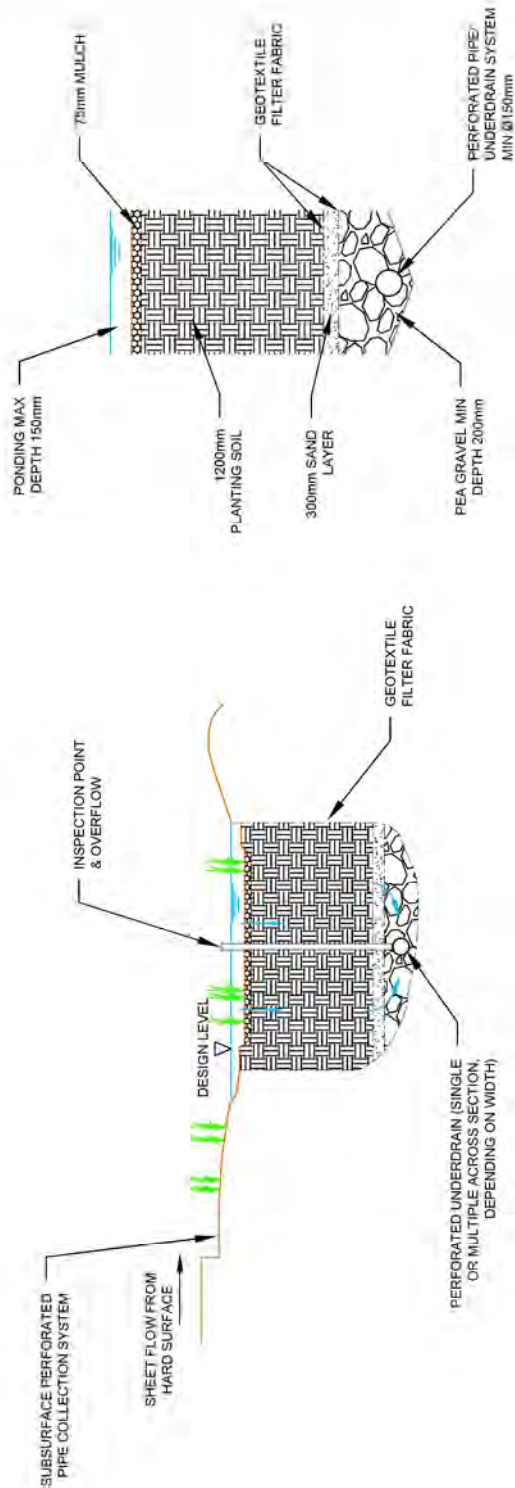
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DRAWING STATUS: PRELIMINARY				
BETTS ASSOCIATES CIVIL AND STRUCTURAL ENGINEERS Unit 6, Old Marsh Farm Barn, Marsh Road, Sodbury, Bristol BS32 2LY Tel: 01244 288178 Fax: 01244 288216 enquiries@betts-associates.co.uk				

PROJECT: TYPICAL SUDS DETAIL				
TITLE: CELLULAR STORAGE				
DATE: SEP 2014	SCALE: 1:50	SIZE: A3	DRAWN: CP	CHECKED: RDN
PROJECT No: BETTS	DRAWING No: 113	REV: A		

DO NOT SCALE



PLAN VIEW



PROFILE

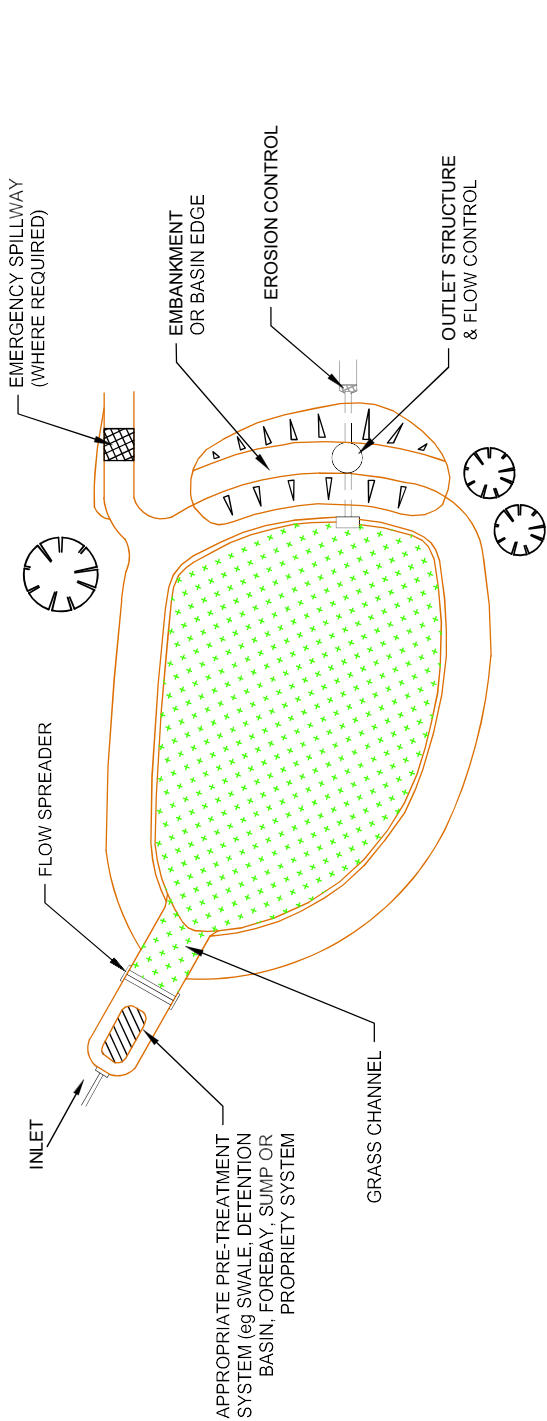
TYPICAL SECTION

REV	DATE	BY	DESCRIPTION	CHK
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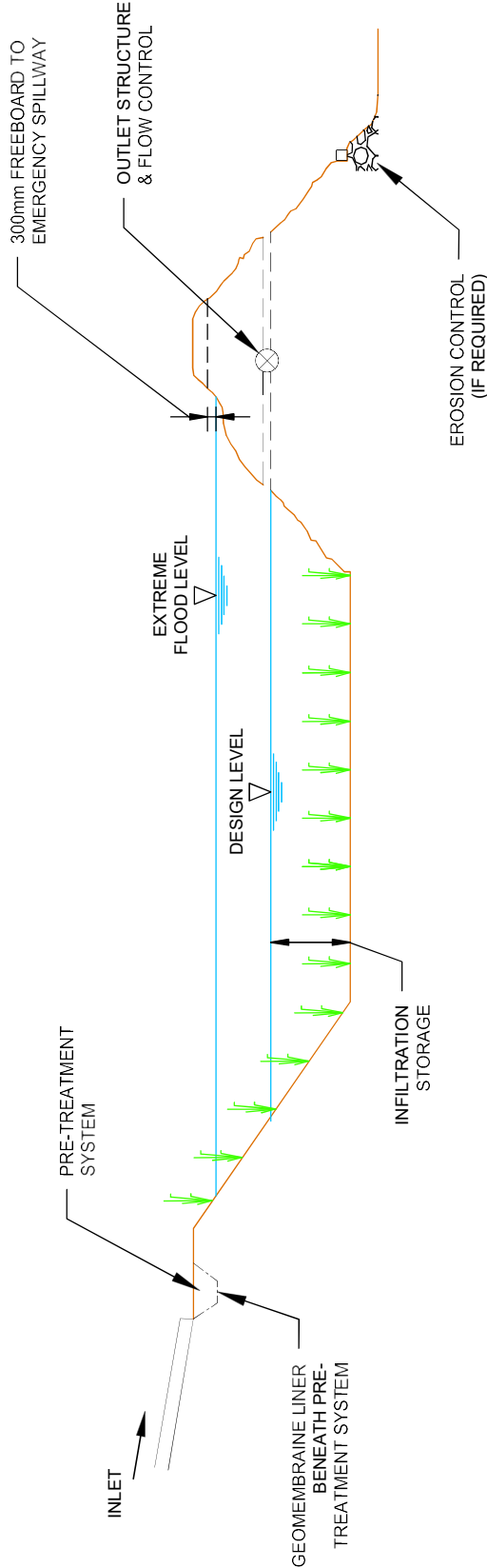
BETTS ASSOCIATES
CIVIL AND STRUCTURAL ENGINEERS
Unit 6, Old Marsh Farm Barn, Marsh Road, Sodbury, Gloucestershire GL8 2LY
Tel: 01244 288178 Fax: 01244 288216 enquiries@betts-associates.co.uk

PROJECT: TYPICAL SUDS DETAIL				
TITLE: BIORETENTION APPLICATIONS				
DATE: SEP 2014	SCALE: 1:50	SIZE: A3	DRAWN: CP	CHECKED: RDN
PROJECT No: BETTS	DRAWING No: 112	REV: A		

DO NOT SCALE



PLAN VIEW



ELEVATION

REV	DATE	BY	DESCRIPTION	CHK

DRAWING STATUS:

PRELIMINARY



BETTS ASSOCIATES
CIVIL AND STRUCTURAL ENGINEERS
Unit 6, Old Marsh Farm Barns, Welsh Road, Sealand, Fifehire CH4 2LY
Tel: 01244 288178 Fax: 01244 288518 enquiries@betts-associates.co.uk

PROJECT:

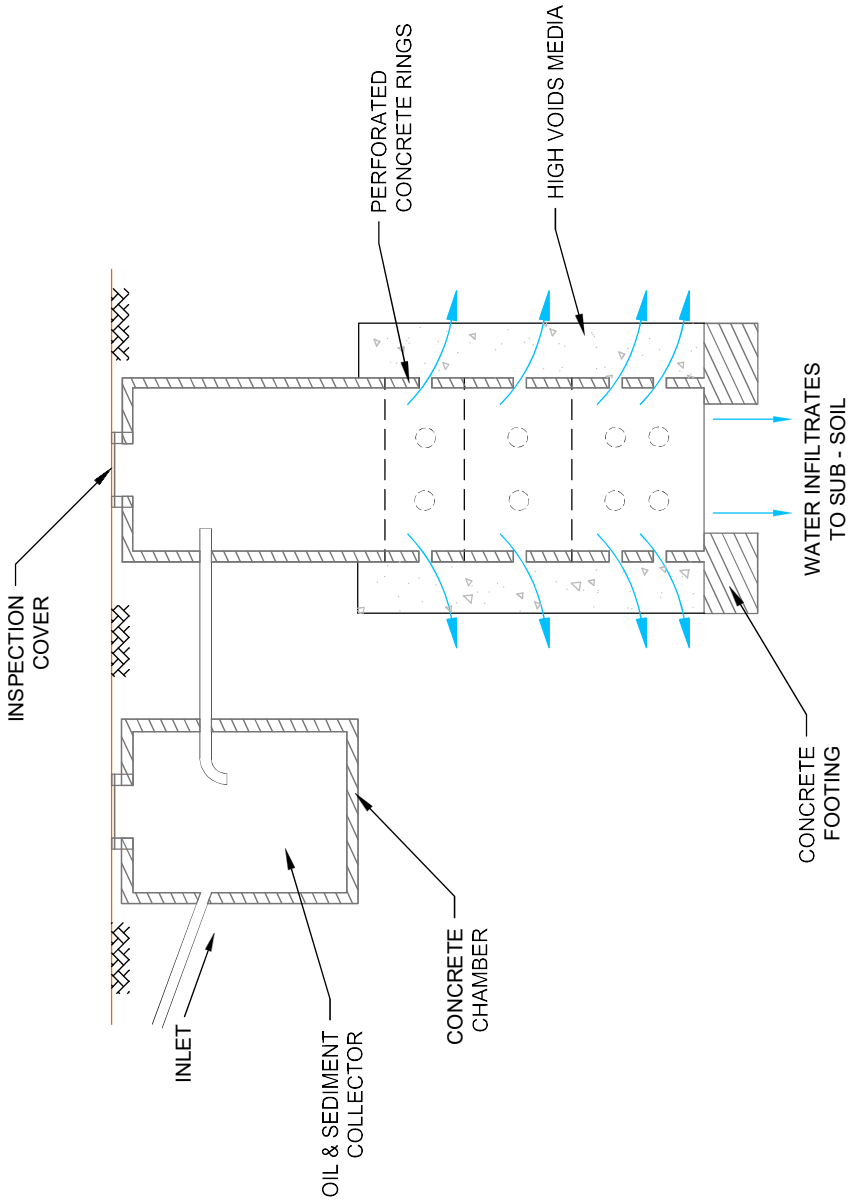
TYPICAL SUDS DETAIL

TITLE:

INFILTRATION BASINS

DATE:	SCALE:	SIZE:	DRAWN:	CHECKED:
SEP 2014	@ A3	CP	RDN	RDN
PROJECT No:	BETTS	DRAWING No:	109	REV:
				A

DO NOT SCALE



SOAKAWAY DETAILS
(INCLUDING PRE-TREATMENT DEVICE)

REV	DATE	BY	DESCRIPTION	CHK

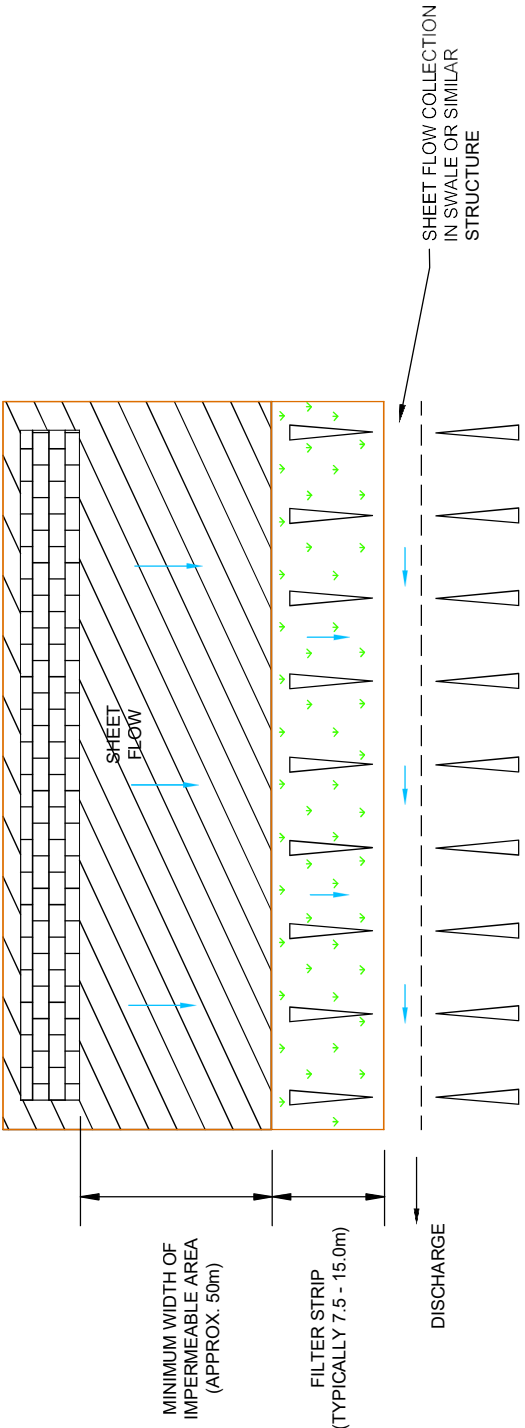
DRAWING STATUS: PRELIMINARY



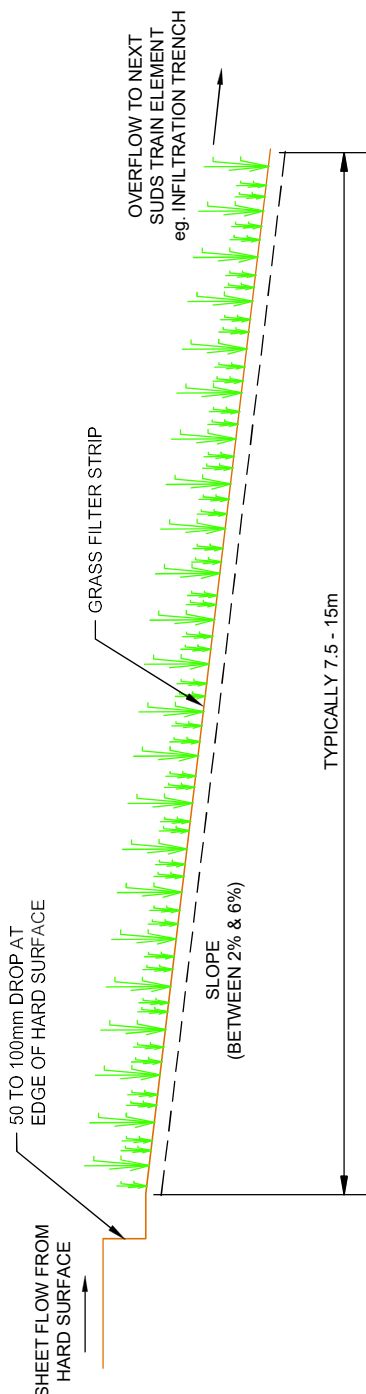
BETTS ASSOCIATES
CIVIL AND STRUCTURAL ENGINEERS
Unit 6, Old Marsh Farm Barris, Welsh Road, Sealand, Fifehire CH5, 2LY
Tel: 01244 288178 Fax: 01244 288518 enquiries@betts-associates.co.uk

PROJECT:			
TYPICAL SUDS DETAIL			
TITLE:			
SOAKAWAYS			
DATE: SEP 2014	SCALE @ A3	DRAWN: CP	CHECKED: RDN
PROJECT No: BETTS		DRAWING No: 108	
REV:		A	

DO NOT SCALE



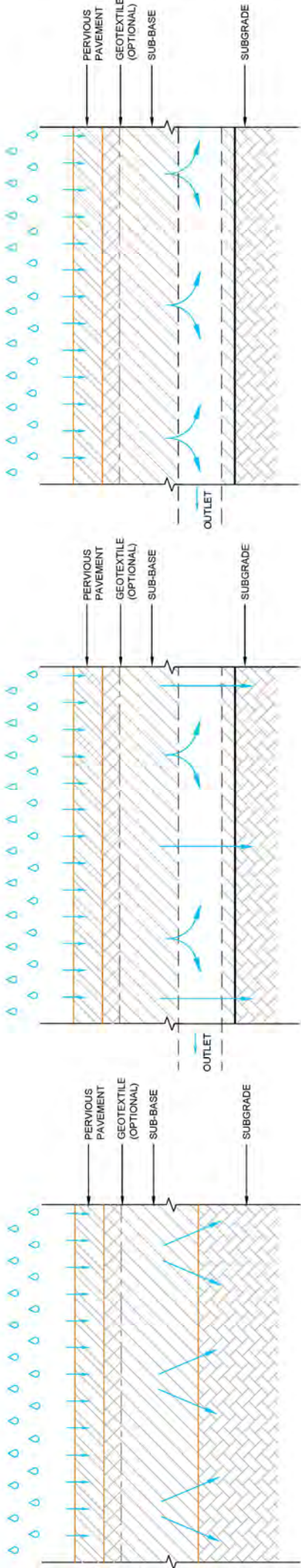
PLAN



ELEVATION

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DRAWING STATUS: PRELIMINARY					
 BETTS ASSOCIATES CIVIL AND STRUCTURAL ENGINEERS Unit 6, Old Marsh Farm Barns, Welsh Road, Sealand, Fifehire CH5 2LY Tel: 01244 288178 Fax: 01244 288518 enquiries@betts-associates.co.uk					
PROJECT:					
TYPICAL SUDS DETAIL					
TITLE:					
FILTER STRIPS					
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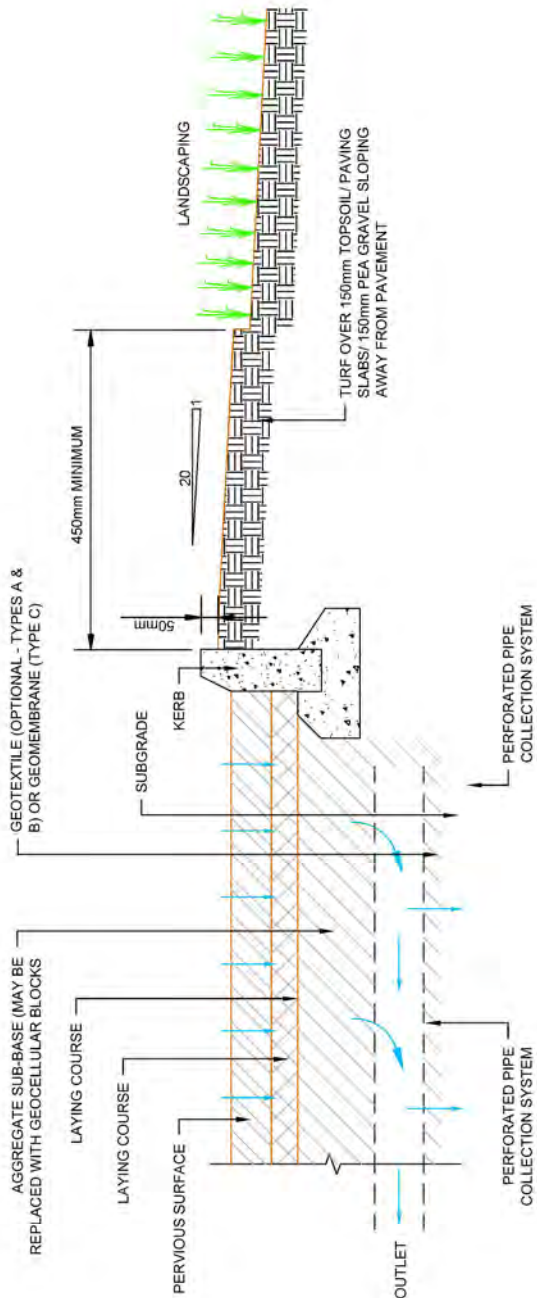
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TYPE A: TOTAL INFILTRATION

TYPE B: PARTIAL INFILTRATION

TYPE C: NO INFILTRATION



LANDSCAPING DETAIL

REV	DATE	BY	DESCRIPTION	CHK
-----	------	----	-------------	-----

DRAWING STATUS:

PRELIMINARY

BETTS ASSOCIATES
CIVIL AND STRUCTURAL ENGINEERS
Unit 6, Old Marsh Farm, Berris, Welsh Road, Sodbury, Gloucestershire GL8 2LY
Tel: 01244 288178 Fax: 01244 288516 enquiries@betts-associates.co.uk

PROJECT:

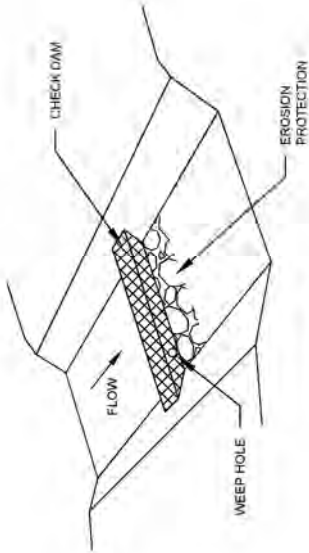
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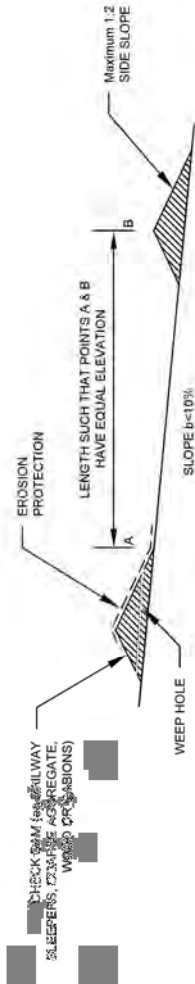
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PROJECT No:	DRAWING No:	105	REV:	A
BETTS				

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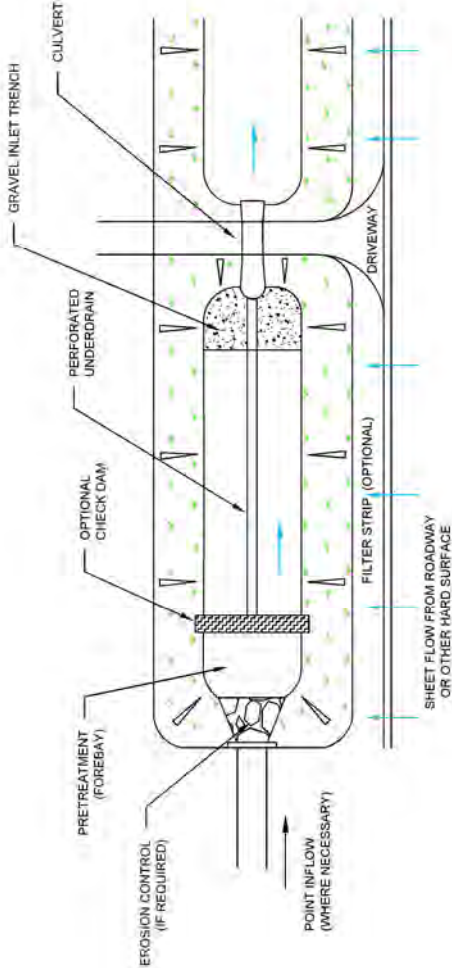


SCHEMATIC



ELEVATION

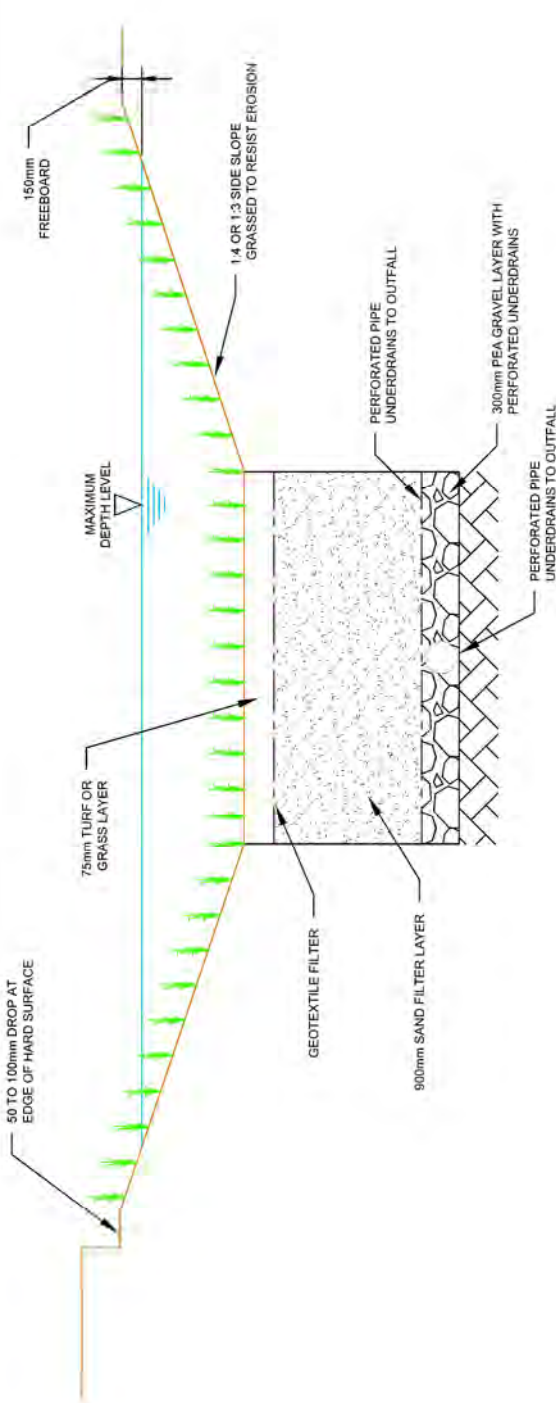
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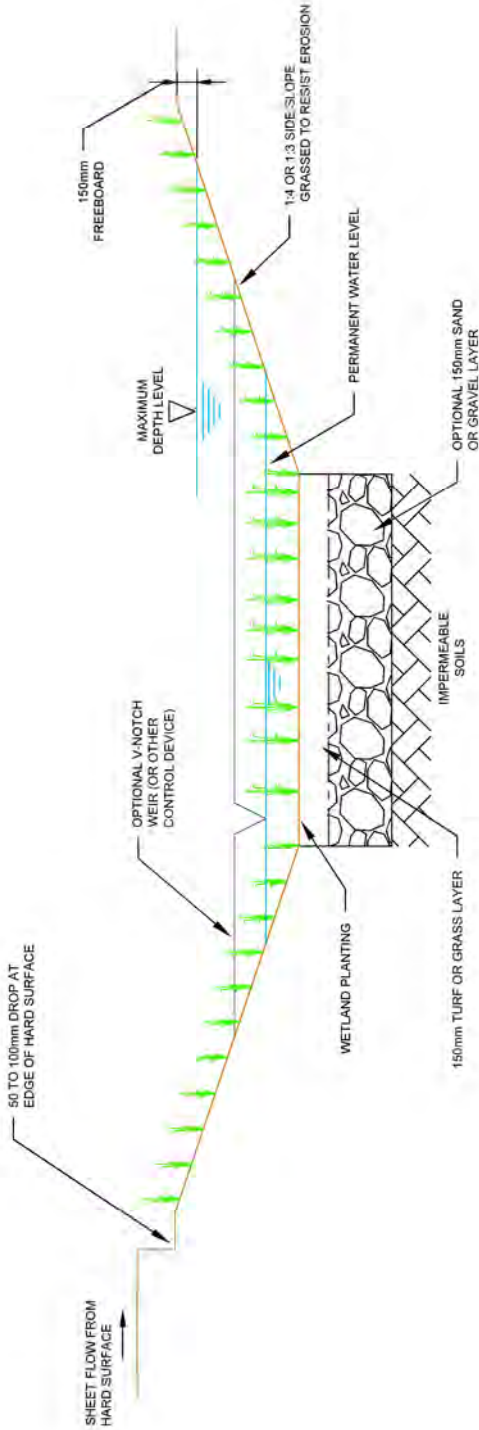
ENHANCED DRY SWALE

REV	DATE	BY	DESCRIPTION	CHK
DRAWING STATUS: PRELIMINARY				
BETTS ASSOCIATES CIVIL AND STRUCTURAL ENGINEERS 11th Fl, Old Marsh Farm Barns, Marsh Road, Seelands, Epsom, Surrey TW20 2JY Tel: 01244 288178 Fax: 01244 288518 email@betts-associates.co.uk				
PROJECT: TYPICAL SUDS DETAIL				
TITLE: SWALES (2 of 2)				
DATE: SEP 2014	SCALE: 1:50	SIZE: A3	DRAWN: CP	CHECKED: RDN
PROJECT No: BETTS	DRAWING No: 104	REV: A		

DO NOT SCALE



DRY SWALE



WET SWALE

REV	DATE	BY	DESCRIPTION	CHK

DRAWING STATUS:

BETTS ASSOCIATES
CIVIL AND STRUCTURAL ENGINEERS
14th Fl, Old Marsh Farm Barns, Marsh Road, Seelands, Ealinghe Rd 21Y
Tel: 01844 288178 Fax: 01844 288518 email: info@betts-associates.co.uk

PROJECT:

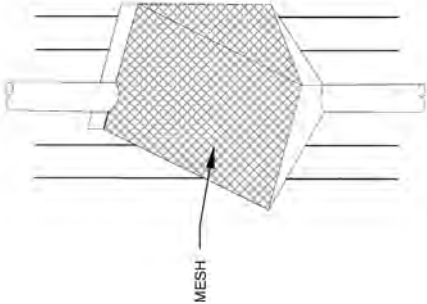
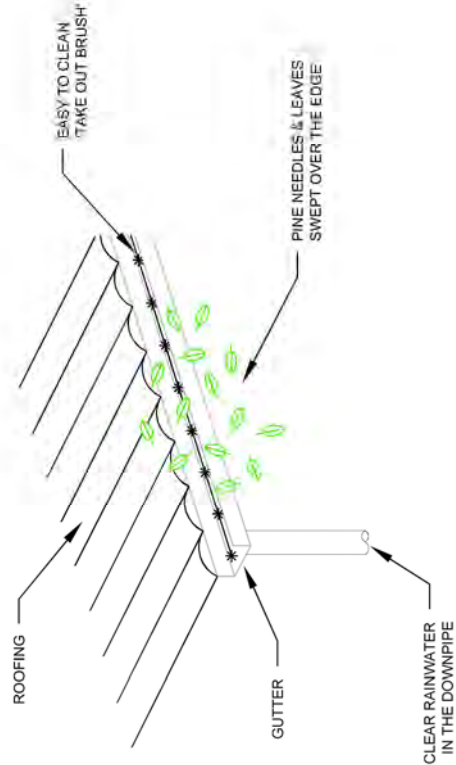
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TITLE:

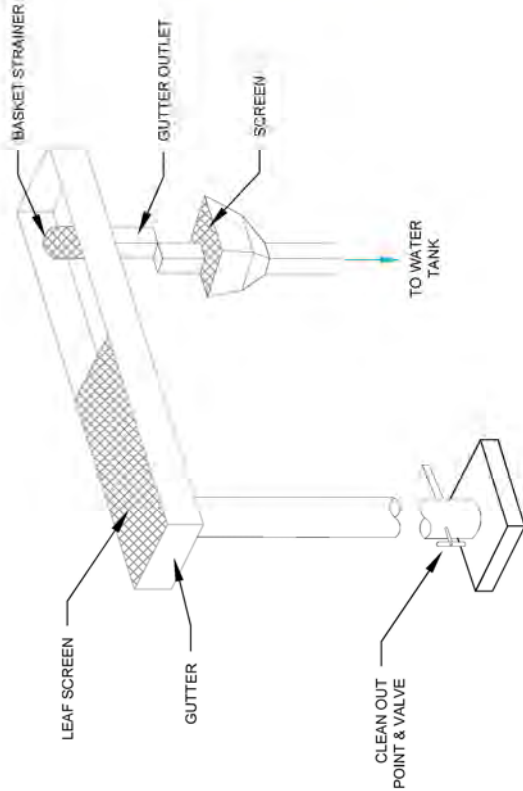
SWALES
(1 of 2)

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PROJECT No: BETTS	DRAWING No: 103	REV: A		

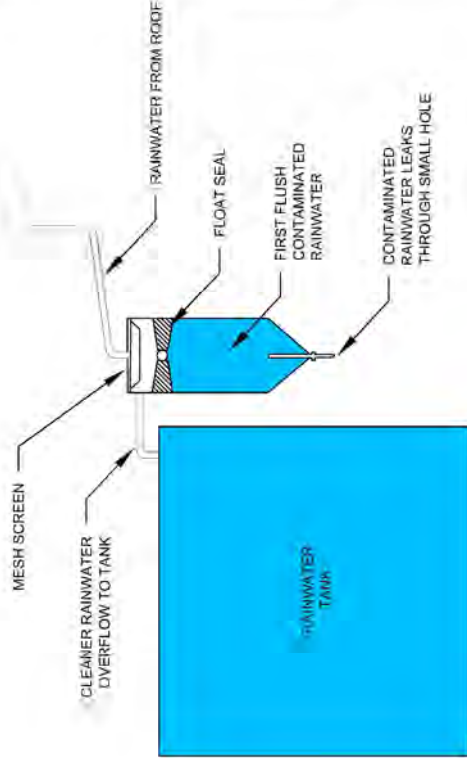
DO NOT SCALE



RAINWATER HARVESTING



RAINWATER HARVESTING



RAINWATER HARVESTING

RAINWATER HARVESTING

REV	DATE	BY	DESCRIPTION	CHK
DRAWING STATUS: PRELIMINARY				
 BETTS ASSOCIATES CIVIL AND STRUCTURAL ENGINEERS 11th Fl, Old Marsh Farm Barns, Marsh Road, Sealand, Flintshire DD6 2JY Tel: 01244 288178 Fax: 01244 288518 email: info@betts-associates.co.uk				
PROJECT: TYPICAL SUDS DETAIL				
TITLE: RAINWATER HARVESTING				
DATE: SEP 2014	SCALE: 1:100	SIZE: A3	DRAWN: CP	CHECKED: RDN
PROJECT No: BETTS		DRAWING No: 102		REV: A

APPENDIX L: NOTES OF LIMITATIONS

The data essentially comprised a study of available documented information from various sources together with discussions with relevant authorities and other interested parties. There may also be circumstances at the site that are not documented. The information reviewed is not exhaustive and has been accepted in good faith as providing representative and true data pertaining to site conditions. If additional information becomes available which might impact our conclusions, we request the opportunity to review the information, reassess the potential concerns, and modify our opinion if warranted.

It should be noted that any risks identified in this report are perceived risks based on the available information.

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