Waterman Infrastructure & Environment Limited
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Technical Note

Nutfield Green Park – Outline Drainage Review Response
(Planning Application Reference: 2023/1281)

Date: July 2024

Client Name: Nutfield Park Developments Limited

Document Reference: WIE19222-100-TN-3-2-1

This document has been prepared and checked in accordance with Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

Issue	Prepared by	Checked by	Approved by	Notes
P01 19.07.24	Gurveer Jutte (Engineer)	Stephen Henry (Associate Director)	Stephen Henry (Associate Director)	Issued to HGH
P02 25.07.24	Gurveer Jutte (Engineer)	Stephen Henry (Associate Director)	Stephen Henry (Associate Director)	Updated following comments from HGH

1. Introduction

Waterman Infrastructure and Environment Ltd (Waterman) were appointed by the Nutfield Park Developments Limited (Ltd) to undertake a Flood Risk Assessment (FRA) and Drainage Strategy report to support the outline planning application of the Nutfield Green Park development.

The development proposals were submitted for outline planning permission in December 2023, with successful consultee no-objection responses by the Environment Agency (EA) and Lead Local Flood Authority (LLFA), Surrey County Council, in April 2024 and December 2023 respectively.

For completeness, this application (ref: 2023/1281) seeks outline planning permission for the creation of up to 166 new residential homes, up to a 70 bed care home, up to 41 extra care homes, flexible ancillary floorspace in use class E(e) and/or F2 (up to 1,500sqm). High quality environmental and ecological enhancements to the existing open space, woodland and waterbodies are also proposed. The Site extends to approx. 58.8ha. Only approx. 7ha of the total site area will be subject to built development or hardstanding. This accounts for only approx. 12% of the total site area. These proposals are inherently different to those submitted under application ref: TA/2021/1040, which was refused in September 2021.

Extensive consultation and pre-application advice was sought by Waterman during the development of the Outline submission with the LLFA. This was to ensure all policies and design parameters were in accordance with their standards for an Outline planning submission. Refer to Appendix A for these discussions.

In response to the planning submission local land owner J&J Franks commissioned AECOM to review the FRA and Drainage Strategy with a view to submitting an objection to the planning application. Waterman have reviewed the response by AECOM on behalf of J&J Franks, dated 4th April 2024. The following sections summarise Waterman's outline planning submission and address the comments made by AECOM's technical review. Note, J&J Franks and AECOM assessed a variety of technical disciplines and reports made for the planning submission, however this Technical Note will address comments raised regarding Waterman's outline planning FRA (WIE19222-100-R-1-3-1-FRA).

1.1 Summary of Outline Planning FRA and Drainage Strategy

The entire Site is designated as Flood Zone 1. This is land defined as having less than 0.1% (1 in 1,000) Annual Exceedance Probability (AEP) of flooding from rivers or sea in any year, classified as a low probability of fluvial flooding.

The EA's Risk of Flooding from Surface Water mapping indicates that the majority of the Site is at a 'very low' risk of surface water flooding (less than 0.1% AEP).

There are small pockets of ponding at 'high' risk (greater than 3.33% AEP) of flooding from surface water. However, these are due depressions in ground level, most of which are existing water features, and are all outside of the development areas. Therefore, the risk to the Proposed Development is low and surface water flood risk will not be affected by the Proposed Development.

Additionally, there is an offsite surface water flow route that runs through the south-eastern corner of the Site. This passes to the east of the Proposed Development, outside of any development areas and therefore will not be affected by the Proposed Development. For full details of this, refer to the FRA (WIE19222-100-R-1-3-1-FRA) submitted with the outline planning application (application ref: 2023/1281).

The Proposed Development areas will be actively drained by the proposed drainage network, which will ensure the development is safe from surface water flooding over its lifetime. Any existing flow routes through the Site will be maintained. Therefore, the proposed drainage strategy will be sufficient to manage the risk of flooding from surface water.

The risk of flooding from groundwater, sewers and artificial sources have all been assessed and are not considered to require further mitigation.

The proposed drainage strategy has been developed to mitigate potential impacts on the local ecology. In line with the drainage hierarchy, surface water runoff will discharge to the Redhill Brook to the north of the Site, following the existing hydrological regime. Flow will discharge from the Site via an existing connection under Chilmead Lane to an offsite drainage ditch that runs north into the Redhill Brook.

Existing discharge rates from the Site are much lower (up to 96%) than greenfield runoff rates due to the existing onsite drainage features. Therefore, it is proposed to limit flow from the Site to existing rates rather than the much higher greenfield rates. The drainage strategy consists of three subcatchments: western, central (the Drive), and eastern.

Flows from each of the development parcels (western and eastern subcatchments) will be conveyed through to a network of detention lined basins and ponds to the recreation ponds at the north of the Site before connecting into the Redhill Brook via the existing outflow connection.

Surface water runoff from the road connecting the two development parcels (the Drive) will drain to a roadside filter drain before discharging overland to the historical settlement pond to the north, in line with the existing hydrological regime.

Source control, through the use of SuDS, is proposed throughout the Site to provide multiple benefits beyond flood risk management, such as water quality management, amenity, and biodiversity and ecology. Sitewide integration of these features will minimise any impact on the local environment.

The proposed SuDS system (due to their lined nature and ecological behaviour), some of the ponds will be seasonal to wetting and drying, this will provide additional (not modelled) resilience to the scheme, with increased buffering against the existing baseline (greenfield run off) and post-development. This seasonal effect will provide great flood resilience in practice than has been currently modelled.

The combined effect of no surface infiltration over the developed areas and the use of extensive, interconnected and lined SUDS will act to reduce rainfall infiltration against the current status/quo baseline and therefore in practice reduce the existing risk of water passing through the Nutfield Green development to J&J Frank land.

It is considered that the information provided within this report satisfies the flood risk requirements of the National Planning Policy Framework and local policy.

The proposed drainage strategy clearly lays out the existing and proposed flow rates from the Site, demonstrating that flow rates from the Site will not be increased and adequately ensuring that there will be no increase in flood risk elsewhere.

Infiltration is not proposed for the Site to ensure no potential for contamination of groundwater. Furthermore, lined SuDS features are proposed throughout the Site to ensure that surface water runoff is treated. Multiple SuDS features in series are proposed, in line with the SuDS Management Train approach as detailed within the CIRIA SuDS Manual. For full details of the Drainage Strategy, refer to the FRA report (WIE19222-100-R-1-3-1-FRA).

1.2 Post-Planning Consultee Comments

1.2.1 Lead Local Flood Authority (LFFA)

The LLFA responded to the outline planning submission on the 13th December 2023, whereby they stated;

We are satisfied that the proposed drainage scheme meets the requirements set out in the aforementioned documents and are content with the development proposed, subject to our advice below.

Our advice would be that, should planning permission be granted, suitably worded conditions are applied to ensure that the SuDS Scheme is properly implemented and maintained throughout the lifetime of the development.

The conditions are standard for an outline submission and would be met by the detailed design of the development in the future.

These conditions ensure all principles of flood risk and drainage proposals are adhered to in the outline planning submission FRA.

Refer to Appendix B for the full response from the LLFA.

They set Condition 1 which will address the issues raised by AECOM in their assessment, the LLFA want to see the final solution for the development in accordance with the principles set out in the outline FRA. Notably, the detailed model will require *a plan showing exceedance flow (i.e. during rainfall greater than design events or during blockage) and how property on and off site will be protected from increased flood risk.*

To ensure the design is adhered to during the construction stage, they have also set Condition 2 which is a verification of all the design works are correctly built in accordance with the approved drawings and specifications.

AECOM and J&J Franks have completed their own assessment and review of the FRA to support the outline planning application. The suggested conditions by the LLFA are in place to ensure future detailed design meets the latest guidance set by the LLFA by reviewing the future submission packs to discharge the planning conditions.

1.2.2 Environment Agency

Similarly to the LLFA, the EA had a positive response stating;

We do not have any objection to the proposed development subject to the following conditions being attached to any planning permission.

With respect to drainage comments, the EA summarised;

It is understood from the Flood Risk Assessment and Drainage Strategy produced by Waterman (Ref: WIE19222-100-R-1-3-1-FRA, dated October 2023) that surface water is to discharge to existing ponds, which are to discharge to an adjacent surface water feature. It is also understood that foul water is to be discharged via mains sewer. This is considered acceptable from a groundwater quality perspective, however, should these plans change, we would wish to be consulted further.

The suggested planning conditions set by the EA, are able to be resolved post-planning which cover items such as further ground contamination investigations, rather than drainage related matters or flood risk. It is typical of developers to increase their investment on a site post-determination and therefore, will complete further site investigation works, to satisfy the EA conditions.

Therefore, following this outline planning application's determination (ref: 2023/1281), all conditions will be met in regard to ground contamination investigations and ground water checks.

It is noted by the EA, as there are no plans to discharge to ground via infiltration, they are in approval of discharging via a waterbody, to ensure groundwater is protected.

Refer to Appendix C for the full consultation response by the EA.

2. Response to J&J Franks and AECOM 2024 Review

2.1 Response to AECOM Review

J&J Franks commissioned AECOM to provide advice on whether proposed development within Nutfield Green Park (the development site) will impact flood risk to the client's adjacent land at Chilmead. This report provided AECOM's assessment of the likely flood risk impact to the areas adjacent to Nutfield Green Park. AECOM's assessment is based on a review of the documents submitted for planning application 2023/1281 available on Tandridge District Council's planning portal.

AECOM note in Section 1.2 of their assessment, regarding existing surface water flood risk, Waterman have identified the areas of flood risk and demonstrated that as part of the development the continued operation of this drainage flow path must be maintained.

AECOM identify in Section 1.3 of their report, greenfield runoff rates were calculated by Waterman as well as existing site discharge rates. Extract below from their report;

It is notable that Waterman have identified that their calculated greenfield runoff rate is greater than the current rate of discharge from the development site. The drainage strategy proposes to limit the post development discharge rate to their calculated current rate of discharge, not to their calculated greenfield runoff rate. AECOM have not been able to identify how this current rate to discharge from the site has been calculated from the information contained within Waterman's FRA report and appendices. As the discharge from the Nutfield Green Park site is not proposed at Waterman's calculated greenfield runoff rate, overestimation of the greenfield runoff rate would not result in increased discharge to J&J Franks' Chilmead site based on Waterman's proposals.

Waterman covered the calculation of existing drainage catchments and discharge rates in Section 5.0 of the Flood Risk Assessment document (WIE19222-100-R-1-3-1-FRA). Existing discharge rates were calculated using a Network Design Model in MicroDrainage (which incorporated the existing lagoons and associated conveyance pipes). As noted above, this infrastructure was noted to be retained. Refer to Appendix G of WIE19222-100-R-1-3-1-FRA for the existing MicroDrainage model.

AECOM also cover an overview of Waterman's proposed drainage strategy, it is incorrectly stated that:

This land drainage ditch and the Redhill Brook drain into J&J Franks' Chilmead site and so any increase in the rate of discharge from the Nutfield Green Park site may increase flood risk to J&J Franks' assets.

It is evidenced in WIE19222-100-R-1-3-1-FRA, Section 5.39 where Tables 11 and 12 stipulate the existing discharge rates and proposed rates. Noting, a 4% reduction in discharge rates post-development, due to the use of sustainable urban drainage features (SuDS) across the development.

Waterman, in line with best practice, proposed a suitable treatment train for water quality management before discharging to a waterbody. This is identified by AECOM in their review and note, to minimise any risk of ground water contamination, all SuDS features are to be lined with an impermeable membrane.

Similarly to the previous incorrect conclusions by AECOM, they have cropped and extracted certain elements of Waterman's FRA for example, regarding the existing western drainage route. They have stated in 3.2.1 of their response:

3.2 Existing Western Drainage Route

3.2.1 Paragraph 5.37 of Waterman's FRA report discusses the attenuation of surface water runoff within the southwestern housing development area of the development site. The report states that:

"*Due to spatial constraints within this catchment, it is not possible to provide sufficient storage within the catchment to match greenfield runoff rates for all events up to and including the 1% (1 in 100) AP plus 40% climate change event*".

3.2.2 This drainage route passes through third party land via open channels and a 1.2m diameter culvert, providing land drainage for this area. Surface water drainage for the village of Nutfield to the south also discharges through this route and thus its continued clear operation is vital to limiting the surface water flood risk within Nutfield.

3.2.3 Additional flow which enters the drainage assets within the third-party land will increase the risk of surface water flooding to that third party land. Although this flow path re-enters the development site further downstream, the flow must be managed upstream of the point that it first leaves the Nutfield Green Park area to be compliant with guidance. AECOM consider that details showing a strategy to reduce the discharge rate through the third-party land to the lower of the greenfield or pre-development discharge rate should be provided.

However, they have crucially missed the second paragraph of Waterman's FRA (paragraph 5.37);

Source control and surface water storage volume is provided for the Western Plot within a series of cascading lined basins. Due to spatial constraints within this catchment, it is not possible to provide sufficient storage within the catchment to match greenfield runoff rates for all events up to and including the 1% (1 in 100) AP plus 40% climate change event. Instead, the additional storage requirement is provided within the Eastern Recreation Pond by restricting flow to the Western Recreation Pond using an orifice plate (130mm diameter) flow control. Further calculations of the baseline and proposed discharge from the Site is provided within Appendix G

Therefore, Waterman have correctly identified a suitable way to manage additional flows where spatial constraints prevented all attenuation being provided on the western end, it can be conveyed to the eastern end where there is more opportunity for attenuation.

2.2 Response to J&J Franks

From review of the J&J Franks covering letter, it would appear J&J Franks is not a technical specialist in flood risk assessments and drainage strategies and therefore commissioned AECOM to provide the technical support. However, in some instances it appears they may have incorrectly interpreted AECOM's assessments.

Such as, paragraph 5.8 by J&J Frank's letter dated 4th April 2024;

Para 2.2.7 of AECOM's Review identifies that Waterman's MicroDrainage model suggests that surface water flooding is expected to occur downstream of the recreation ponds during the 30-year return period event. AECOM expect that flooding downstream of the recreation pond will reach our adjacent Chilmead Farm site to the north and they have assessed that the flood risk to the third-party land to the west and to Nutfield Marsh Road to the east appear likely to increase.

This is incorrect, as noted above, it is clear in the Waterman FRA proposed discharge rates leaving the site will be reduced from the existing scenario. It is inconclusive that AECOM can state flood risk will increase downstream, without providing any calculations or modelling to prove this.

The J&J Franks letter does not correctly interpret AECOM's reporting, as they have noted a *high-risk* flood event would occur due to the proposed discharge rates However, this would not be the case since the development at Nutfield Green will improve existing discharge rates.

The letter also noted;

AECOM have also identified that the hard standing around the retirement home post development would generate additional runoff to the surface water flow path which contributes to flood risk to Nutfield Marsh Road and does not follow the proposed drainage system

However, it is noted by Waterman's proposed impermeable areas plan (19222-WIE-ZZ-XX-DR-D-92001) that all proposed hardstanding areas will be positively drained under gravity in to the proposed attenuation features as part of the drainage strategy and adequate attenuation volume are provided for within the proposals.

2.3 Existing Drainage Infrastructure

It is discussed by AECOM and J&J Franks in detail with regards to the existing drainage infrastructure on the site. They recommend surveys to be completed to assess the condition and sizing.

It should be noted that Waterman completed a site inspection prior to the planning submission to confirm the above. These photos are appended to Appendix B of the FRA.

During the next course of design development, further inspection and structural integrity surveys can be undertaken to provide Technical Approval of all existing assets on the site. The visual site inspection completed by the Waterman team prior to submission, was considered appropriate by the LLFA during pre-app consultations and typically a standard approach for this level of design and for a planning application of this nature at outline stage.

3. Recommendation for Detailed Design

Section 4.2 of AECOM's assessment recommend the requirements to achieve full planning permission.

These recommendations set out by AECOM are in line with standard practice for the next stage of design after outline planning permission has been granted, and the full detailed hydraulic modelling will be able to

provide further clarification to J&J Franks on final discharge rates leaving the site and proposed attenuation features.

As per the LLFA approval, planning conditions have been set for the future design team to adhere to, and ensure the principles set out in the Waterman outline FRA are met.

4. Summary

To conclude the assessment and response to AECOM and J&J Franks, refer to the summary below which addresses their final conclusions. The combined effect of no surface infiltration over the developed areas and the use of extensive, interconnected and lined SUDS will act to reduce rainfall infiltration against the current status/quo baseline and therefore in practice reduce the existing risk of water passing through the Nutfield Green development to J&J Frank land.

AECOM Summary	Waterman Response
Waterman's FRA has been submitted as part of the development proposals for Nutfield Green Park to achieve outline planning permission. The level of detail provided is generally in line with what would typically be expected for outline planning approval.	As noted by AECOM, Waterman's FRA was submitted to support the submission of an outline planning application (ref: 2023/1281) and it outlines the flood risk assessment requirements in accordance with national and local policy. It set out the existing hydrological regime and set the principles for the proposed surface water strategy, which will be adhered to in the later design stages. At Outline stage, it is expected by local authorities, that not all final details can be provided hence pre-app consultations take place to confirm assumptions and parameters, and planning conditions are included to informed detailed design.
MicroDrainage modelling appears to indicate that the risk of surface water flooding downstream of the existing recreation ponds will increase. Flooding in this area would be expected to impact J&J Franks' Chilmead site. AECOM would normally expect that evidence to demonstrate that there will be no increase in flood risk to these areas should be provided to achieve outline planning permission.	As noted in Waterman's FRA, existing discharge rates will be met by the proposed surface water strategy, thereby ensuring no increase in flood risk offsite. MicroDrainage modelling was conceptual to achieve outline planning. Following a detailed network analysis, incorporating all sustainable drainage features and storage in pipes and manholes on the development, it is expected to be a betterment to the concept modelling complete at this Outline stage. The existing northern ponds act as a flood risk buffer, are hydraulically connected to the ground water and only seasonally (not permanently) discharge to the Chilmead Brook, and that their use will remain unfettered by the development and (importantly) the proposed flow to Chilmead is throttled by an existing pipe, with greater storage capacity above the exit pipe level if required.
Waterman's drainage strategy appears to indicate that an increased runoff rate will leave the development site to the third-party land to the west and to Nutfield Marsh Road to the east. AECOM would normally expect that details showing methods to mitigate this should be provided to achieve outline planning permission.	This has not been clearly substantiated by AECOM or J&J Frank. All future impermeable area has been accounted for as part of the proposed surface water strategy. It is an incorrect assumption flows from the area of hard standing will enter the existing overland flow path. This is subject to final finished surface levels and the

	future design team can incorporate this in their design to ensure no onsite flows leave the site extents.
AECOM would expect that proposals for managing water quality on a site of this type would more clearly demonstrate the potential sources of contamination and appropriate mitigation as a fully integrated part of the outline drainage strategy.	The principles of source control and water quality treatment are stipulated in the Outline FRA by Waterman. During the detailed design stage or reserved matters application, sub-catchments of land uses such as the residential roads and roofs, can be analysed using the Simple Index Assessment. The nature and scale of this development at Outline, proposes the principles and the future detailed design can ensure water quality targets are met for discharge to a waterbody. It is also confirmed in the FRA, all features will be lined with an impermeable membrane to prevent any contamination to groundwater. In principle, the proposed cascading ponds will provide sufficient treatment for the land use intended (residential / domestic roofs and roads).
The description of the drainage proposals within the FRA report appears to be contradicted by details in some of the drawings and calculations provided within the appendices. AECOM would expect that these apparent contradictions are clarified.	The level of detail AECOM are requesting is above the scope of an Outline planning submission in accordance with the Surrey LLFA guidance. All documentations, drawings and calculations have been approved by both the EA and LLFA. Further work on the modelling and detailed network analysis would be completed post-planning, whereby AECOM can reassess the detailed calculations and drawings.

It is appreciated that AECOM and J&J Franks require further information and expect to see a detailed design completed to ensure their assets adjacent to the development are not affected by the proposed development at Nutfield Green. However, several conditions which will address J&J Franks' concerns at detailed design stage have been set by the LLFA, as is typical of a development of this nature. The principles laid out in the Waterman FRA for outline planning with respect to flood risk and drainage, are in clear agreement of national and local policies, this has been endorsed by both consultees (LLFA and EA) who provided no objections to the proposals during their reviews.

Appendix A – LLFA Consultations prior Submission

Sean Whelan

From: Amy Rodwell <amy.rodwell@surreycc.gov.uk>
Sent: 26 July 2023 10:36
To: Sean Whelan
Cc: Stephen Henry
Subject: RE: Flood risk and drainage information request - Site off A25, Nutfield, Redhill [Filed 26 Jul 2023 11:04]

Categories: Filed by Mail Manager

Hi Sean,

Have added some notes below in red.

Kind regards,

Amy Rodwell
Flood Risk & Climate Resilience Specialist
For the Flood Risk, Planning and Consenting Team
Surrey County Council – Merrow Depot
Tel: 0300 200 1003
Email: amy.rodwell@surreycc.gov.uk
(Please note my working days are Monday – Thursday)

From: Sean Whelan <sean.whelan@watermangroup.com>
Sent: Tuesday, July 25, 2023 12:02 PM
To: Amy Rodwell <amy.rodwell@surreycc.gov.uk>
Cc: Stephen Henry <stephen.henry@watermangroup.com>
Subject: RE: Flood risk and drainage information request - Site off A25, Nutfield, Redhill

Hi Amy,

I haven't seen any survey of the 1500mm sewer running through the adjacent former landfill site but will ask the question to see if there is an existing condition survey for the sewer. If not, presumably we could close this out with a statement along the lines of "condition of the sewer through the adjacent former landfill site to be confirmed post-planning" ? This will be fine however please consider how you will get to the existing ponds if the sewer through the adjacent site is found to be blocked and in a very poor state of repair.

We don't have any scope to daylight unfortunately as it is outside of our red line boundary, see screenshot below. I'm also not sure of the viability to daylight given the adjacent site's former land use. noted

In terms of the 150mm sewer, we haven't confirmed an approach for this yet but suggest we close out with "offsite sewer to either be retained or replaced to ensure no impact upstream of the proposed development" noted, please ensure this is included on the drainage layout too so it can be followed through to detailed design. Consider whether there is any flood risk from this pipe over the life time of the development, due to climate change. The existing pond to the south may overflow more frequently into the pipe so please consider whether diverting or retaining as like for like is appropriate here.

Cheers,

Sean

From: Amy Rodwell <amy.rodwell@surreycc.gov.uk>
Sent: Tuesday, July 25, 2023 11:45 AM
To: Sean Whelan <sean.whelan@watermangroup.com>
Cc: Stephen Henry <stephen.henry@watermangroup.com>
Subject: RE: Flood risk and drainage information request - Site off A25, Nutfield, Redhill

Hi Sean,

Nice to have met you this morning.

I can confirm your summary below provides an accurate reflection of our discussions.

Having just thought about it you will need to demonstrate that the culvert the short section of open watercourse is discharging to for the western catchment is in a suitable condition to receive flows i.e. its not blocked/silted etc. Has there been any consideration of opening up this culvert as it is within the red line of the site?

How will the existing 150mm dia. pipe that passes through the western catchment from the pond to the south of the A25 be retained or incorporated?

Kind regards,

Amy Rodwell
Flood Risk & Climate Resilience Specialist
For the Flood Risk, Planning and Consenting Team
Surrey County Council – Merrow Depot
Tel: 0300 200 1003
Email: amy.rodwell@surreycc.gov.uk
(Please note my working days are Monday – Thursday)

Please consider the environment before printing this email

From: Sean Whelan <sean.whelan@watermangroup.com>
Sent: Tuesday, July 25, 2023 11:40 AM
To: Amy Rodwell <amy.rodwell@surreycc.gov.uk>
Cc: Stephen Henry <stephen.henry@watermangroup.com>
Subject: RE: Flood risk and drainage information request - Site off A25, Nutfield, Redhill

Amy,

Thanks very much for your time just now.

Below is a quick summary of my notes from the meeting. Please have a read through and let me know if I have missed anything.

- We will need to:
  - demonstrate how the recreation ponds will provide the additional storage for the western catchment – this should include design storage levels for the existing and proposed scenarios;
  - Identify who will be responsible for maintaining the suds features and how they will be maintained;
- Additional suds features such as rain gardens, green roofs, etc should be considered for the non-residential areas to provide wider benefits;
- SCC to provide a flood risk report for the Site (included within the Level 2 pre-app service fee) to support the planning application;
- SCC to review our report pre-submission (included within the Level 2 pre-app service fee) to either confirm agreement in principle or identify any areas that need refinement.

Cheers,

Sean

Sean Whelan MCIWEM C.WEM CSci CEng
Principal Engineer
Waterman Infrastructure & Environment Ltd

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Please consider the environment before printing this e-mail. Thank you!

From: Amy Rodwell <amy.rodwell@surreycc.gov.uk>
Sent: Tuesday, July 25, 2023 8:24 AM
To: Sean Whelan <sean.whelan@watermangroup.com>
Cc: Stephen Henry <stephen.henry@watermangroup.com>
Subject: RE: Flood risk and drainage information request - Site off A25, Nutfield, Redhill [Filed 25 Jul 2023 10:13]

Morning Sean,

Just checking in about our 11am meeting today, you still happy to go ahead or did you want to move it to next week?

Kind regards,

Amy Rodwell
Flood Risk & Climate Resilience Specialist
For the Flood Risk, Planning and Consenting Team
Surrey County Council – Merrow Depot
Tel: 0300 200 1003
Email: amy.rodwell@surreycc.gov.uk
(Please note my working days are Monday – Thursday)

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From: Sean Whelan <sean.whelan@watermangroup.com>
Sent: Tuesday, July 18, 2023 4:21 PM
To: Amy Rodwell <amy.rodwell@surreycc.gov.uk>
Cc: suds/EAI/SCC <suds@surreycc.gov.uk>; Stephen Henry <stephen.henry@watermangroup.com>
Subject: RE: Flood risk and drainage information request - Site off A25, Nutfield, Redhill

Thanks Amy,

I need to get the third part costs approved by the client but in the meantime, can we pencil in for 11am on the 25th of July for a virtual meeting please?

Please send through the payment info and I'll get this sorted as soon as I can.

I was planning on talking through the flood risk and the proposed drainage strategy for the Site. Please let me know if there is anything further you would like to see at the meeting.

Cheers,

Sean

From: Amy Rodwell <amy.rodwell@surreycc.gov.uk>
Sent: Tuesday, July 18, 2023 3:50 PM
To: Sean Whelan <sean.whelan@watermangroup.com>
Cc: suds/EAI/SCC <suds@surreycc.gov.uk>
Subject: RE: Flood risk and drainage information request - Site off A25, Nutfield, Redhill

Sean,

Apologies I have just re-read your email and realised you might not want a physical site visit, if not I can also do the following dates on MS Teams.

Officer meeting = £1668 + £333.60 VAT = £2001.60

Tue 25th July after 10.30am but before 3pm
Thursday 3rd from 2pm

Kind regards,

Amy Rodwell
Flood Risk & Climate Resilience Specialist
For the Flood Risk, Planning and Consenting Team
Surrey County Council – Merrow Depot
Tel: 0300 200 1003
Email: amy.rodwell@surreycc.gov.uk
(Please note my working days are Monday – Thursday)

Please consider the environment before printing this email

From: Amy Rodwell
Sent: Tuesday, July 18, 2023 3:46 PM
To: 'sean.whelan@watermangroup.com' <sean.whelan@watermangroup.com>
Cc: suds/EAI/SCC <suds@surreycc.gov.uk>
Subject: RE: Flood risk and drainage information request - Site off A25, Nutfield, Redhill

Good afternoon Sean,

Further to your email below I will be picking this up as the case officer. Please can you confirm the site area? looks like the site would be large major (200 or more dwellings proposed / site over 4ha).

A site visit meeting would be £1828 + £365.60 VAT = £2193.60 which includes our flood risk report and takes you through the planning process so would include an pre-submission reviews etc.
Planning Advice - Sustainable Drainage Systems (SuDS) - Surrey County Council (surreycc.gov.uk)

Please can you confirm if you would like to progress on this basis copying in our team inbox above and my colleague will provide payment details and a reference number.

My availability for a site visit is as follows any time from 10am

Wed 26th July
Mon 31st
Tue 1st Aug
Wed 2nd Aug

Kind regards,

Amy Rodwell
Flood Risk & Climate Resilience Specialist
For the Flood Risk, Planning and Consenting Team
Surrey County Council – Merrow Depot
Tel: 0300 200 1003
Email: amy.rodwell@surreycc.gov.uk
(Please note my working days are Monday – Thursday)

Please consider the environment before printing this email

From: Stephen McKenzie <Stephen.McKenzie@surreycc.gov.uk> **On Behalf Of** suds/EAI/SCC
Sent: Tuesday, July 18, 2023 3:39 PM
To: Amy Rodwell <amy.rodwell@surreycc.gov.uk>
Subject: RE: Flood risk and drainage information request - Site off A25, Nutfield, Redhill

Thank you very much Amy.

Stephen McKenzie
Flood Risk Planning and Consenting Team Administrator
Flood and Climate Resilience
Surrey County Council
0300 200 1003

Please consider the environment before printing this email

From: Sean Whelan <sean.whelan@watermangroup.com>
Sent: Friday, July 14, 2023 11:41 AM
To: Glen Westmore <glen.westmore@surreycc.gov.uk>
Subject: RE: Flood risk and drainage information request - Site off A25, Nutfield, Redhill

Caution: This email originated from outside Surrey County Council.
Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi Glen,

Thanks for the below.

Would it be possible to arrange a pre-application meeting to discuss our proposed drainage strategy for the Site?

We are looking to submit an outline application in August. Please can you advise on suitable dates, ideally as soon as possible.

What level of consultation would you recommend to support an outline application? Typically, the pre-app consultations I have undertaken have been in line with your level 3 bespoke advice service. We have discussed our flood risk and drainage proposals for the Site with the relevant LLFA to either confirm agreement in principle or identify any further requirements. Would this be appropriate? Or what would you recommend?

Cheers,

Sean

From: Glen Westmore <glen.westmore@surreycc.gov.uk> **On Behalf Of** suds/EAI/SCC
Sent: Thursday, May 25, 2023 3:21 PM
To: Sean Whelan <sean.whelan@watermangroup.com>
Subject: FW: Flood risk and drainage information request - Site off A25, Nutfield, Redhill

Dear Sean,

Many apologies for the delay in responding to your request – we have a new enquiries tracker software and things have bounced around somewhat.

It sounds as though you are asking for a Flood Risk Report on the site – which is a chargeable service from Surrey County Council.

Level 1 – Flood risk report

What we provide

A Detailed Flood Risk Report (FRR) of the known flood risks and historic information we hold, and a review of the suitability of the site for SuDS techniques. We include information from the following sources:

- Fluvial Flood Risk - Flood Zones (Environment Agency)
- Flood Warning and Alert areas (Environment Agency)
- Flood Maps for Surface Water (Environment Agency)
- Susceptibility to Groundwater Flooding (British Geological Survey)
- Historic Flood Map (Environment Agency)
- Wetspots (Surrey County Council)
- Historic Flooding Incidents Database (Surrey County Council)

- Detailed desktop assessment of geological data and suitability of site for SuDS (British Geological Survey)
- Officer analysis and comment of likely suitable SuDS approaches

For more details including prices and pre-app services please visit - https://www.surreycc.gov.uk/community/emergency-planning-and-community-safety/flooding-advice/more-about-flooding/suds-drainage

Some of the above is available online at https://www.gov.uk/check-long-term-flood-risk

If you are interested in this service please email the Suds@surreycc.gov.uk address with the site location and the level of service you require

Kind Regards

Flood Risk Planning and Consenting Team
Surrey County Council

From: Sean Whelan <sean.whelan@watermangroup.com>
Sent: 13 April 2023 15:52
To: Flooding Enquiries/EAI/SCC <flooding.enquiries@surreycc.gov.uk>
Subject: Flood risk and drainage information request - Site off A25, Nutfield, Redhill

Hi,

I am working on the flood risk and drainage side of things for a site off the A25 in Nutfield, Redhill - screenshot of the site boundary and indicative location details are below.

As part of your role as the Lead Local Flood Authority, please can you provide details of:
- any flood defence assets in the area
- any drainage assets in the area
- recorded flood events/history of flooding
- any further information you think may be useful/relevant to the site

BNG coordinates (X,Y) = (530500, 15100)
Postcode = RH1 4HE

Cheers,

Sean

Sean Whelan MCIWEM C.WEM CSci CEng
Principal Engineer
Waterman Infrastructure & Environment Ltd

Pickfords Wharf | Clink Street | London SE1 9DG
t +44 207 928 7888 | **d** +44 330 060 4343
www.watermangroup.com | LinkedIn | Twitter | YouTube

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Sean Whelan

From: Amy Rodwell <amy.rodwell@surreycc.gov.uk>
Sent: 21 September 2023 16:25
To: Sean Whelan
Cc: Stephen Henry
Subject: RE: VLLFA-PAA-RE-23-0065 -Site off A25 Nutfield, Redhill - Maps and Report

Good afternoon Sean,

Further to your email below, I have the following comments/queries:

- Report should include greenfield run-off calculations to evidence the values in table 6
- Storage calcs only appear to have been included for west catchment? Please include (and clearly label) the calcs for each of the 3 catchments
- The ha figures in Table 6 – are these the positively drained areas? It is unclear
- Pro-forma in Appendix H is only partially completed
- Please include assurances that the existing pipe in the western parcel (outfall from the ponds to the south) will be retained in publicly accessible areas with an appropriate easement. As per our meeting notes please provide the justification for not being able to day light the watercourses that are currently pipes. The pipe should be clearly indicated on the drainage layout as requiring retention / diversion.
- Include reference to any remedial works required to existing outfalls/watercourse and the requirement for Ordinary Watercourse consent for any alterations to existing.
- What are the details for restricting flows from the western recreational ponds? How will these be managed and modelled? The drainage layout states 'use of flow control' on the plan but no details have been provided, how would this be followed through to detailed design? It is unclear how the rates for the western catchment would actually be managed what is the proposed restriction at the parcel?
- As per our pre-app discussions please include reference to maintenance responsibilities.

Happy to re-review once you have made the amendments.

Kind regards,

Amy Rodwell
Flood Risk & Climate Resilience Specialist
For the Flood Risk, Planning and Consenting Team
Surrey County Council – Merrow Depot
Tel: 0300 200 1003
Email: amy.rodwell@surreycc.gov.uk
(Please note my working days are Monday – Thursday)

From: Sean Whelan <sean.whelan@watermangroup.com>
Sent: Tuesday, September 19, 2023 2:22 PM
To: Amy Rodwell <amy.rodwell@surreycc.gov.uk>
Cc: suds/EAI/SCC <suds@surreycc.gov.uk>; Stephen Henry <stephen.henry@watermangroup.com>
Subject: RE: VLLFA-PAA-RE-23-0065 -Site off A25 Nutfield, Redhill - Maps and Report

Thanks Amy,

The draft FRA and appendices can be accessed here using the password “draft FRA”. Please shout if you have any issues accessing it.

I somehow forgot to send it to you a couple of weeks ago. Appreciate it’s not on you to clean up my mess but the sooner you can take a look, the smaller you make my mistake.

Have a good one.

Cheers,

Sean

From: Amy Rodwell <amy.rodwell@surreycc.gov.uk>
Sent: Tuesday, August 8, 2023 10:47 AM
To: Sean Whelan <sean.whelan@watermangroup.com>
Cc: suds/EAI/SCC <suds@surreycc.gov.uk>
Subject: VLLFA-PAA-RE-23-0065 -Site off A25 Nutfield, Redhill - Maps and Report [Filed 22 Aug 2023 17:14]

Morning Sean,

Further to your email below please find attached the completed Flood Risk Report and our mapping.

Kind regards,

Amy Rodwell
Flood Risk & Climate Resilience Specialist
For the Flood Risk, Planning and Consenting Team
Surrey County Council – Merrow Depot
Tel: 0300 200 1003
Email: amy.rodwell@surreycc.gov.uk
(Please note my working days are Monday – Thursday)

From: Sean Whelan <sean.whelan@watermangroup.com>
Sent: Tuesday, August 1, 2023 2:59 PM
To: Stephen McKenzie <Stephen.McKenzie@surreycc.gov.uk>
Subject: RE: VLLFA-PAA-RE-23-0065 Site boundary map

Hi Stephen,

Apologies for the delay in responding, I was on leave the end of last week.

Attached is a site location plan that you can use for your reporting. Please let me know if you need anything else.

When do you think you'll be able to provide the flood risk report?

Cheers,

Sean

From: Stephen McKenzie <Stephen.McKenzie@surreycc.gov.uk>
Sent: Tuesday, August 1, 2023 11:58 AM
To: Sean Whelan <sean.whelan@watermangroup.com>
Subject: RE: VLLFA-PAA-RE-23-0065 Site boundary map

Dear Sean

Further to the below, are you able to provide a better resolution map please?

Kind regards

Stephen McKenzie
Flood Risk Planning and Consenting Team Administrator
Flood and Climate Resilience
Surrey County Council
0300 200 1003

From: Stephen McKenzie
Sent: Wednesday, July 26, 2023 11:43 AM
To: sean.whelan@watermangroup.com
Subject: VLLFA-PAA-RE-23-0065 Site boundary map

Dear Sean

Thank you for the attached map: the low resolution makes it challenging to use, are you be able to please send us a higher resolution map showing the application site boundary?

Thank you.

Kind regards

Stephen McKenzie
Flood Risk Planning and Consenting Team Administrator
Flood and Climate Resilience
Surrey County Council
0300 200 1003

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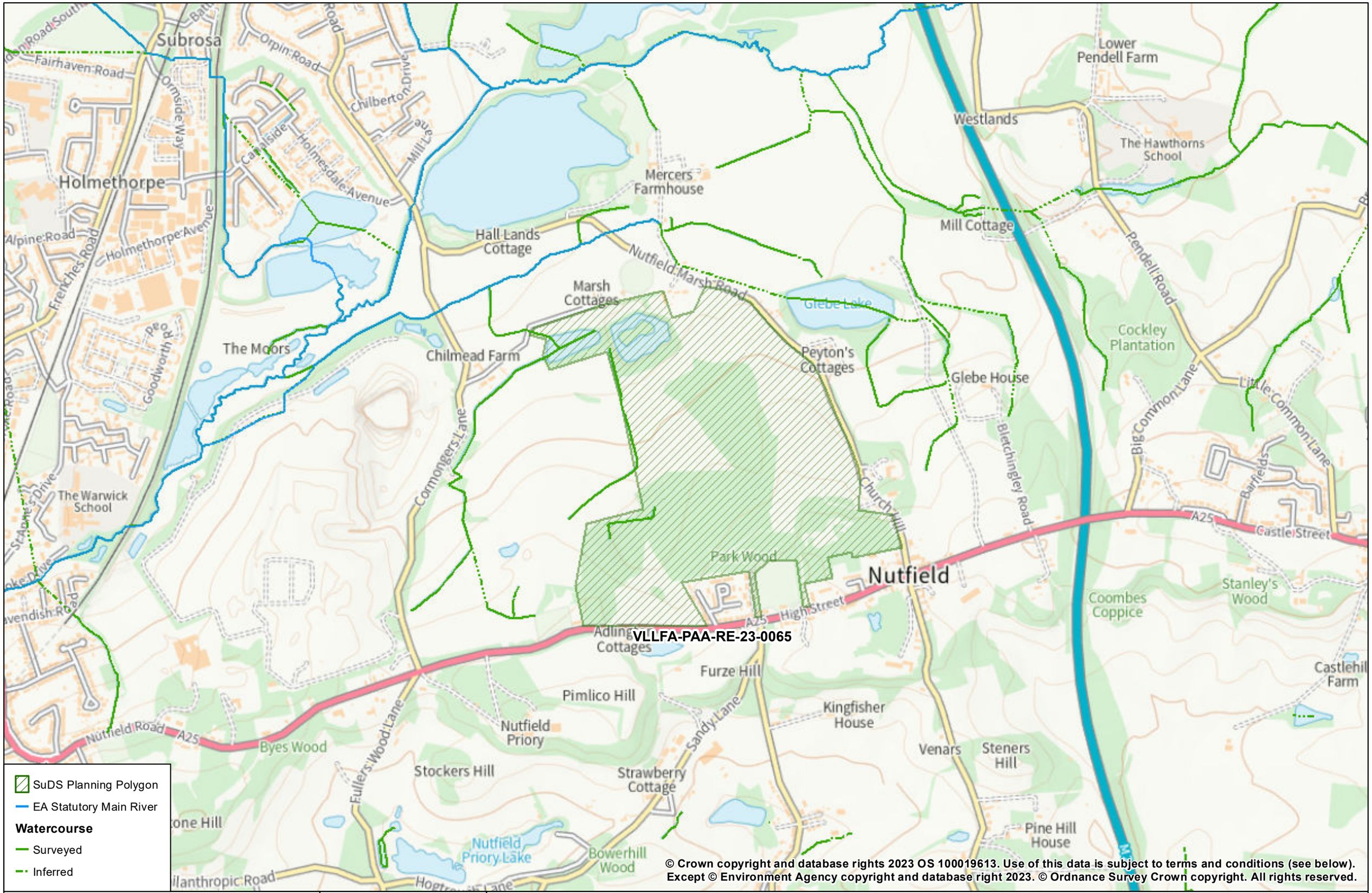


SuDS Planning Polygon

EA Statutory Main River

Watercourse

Surveyed

Inferred

N

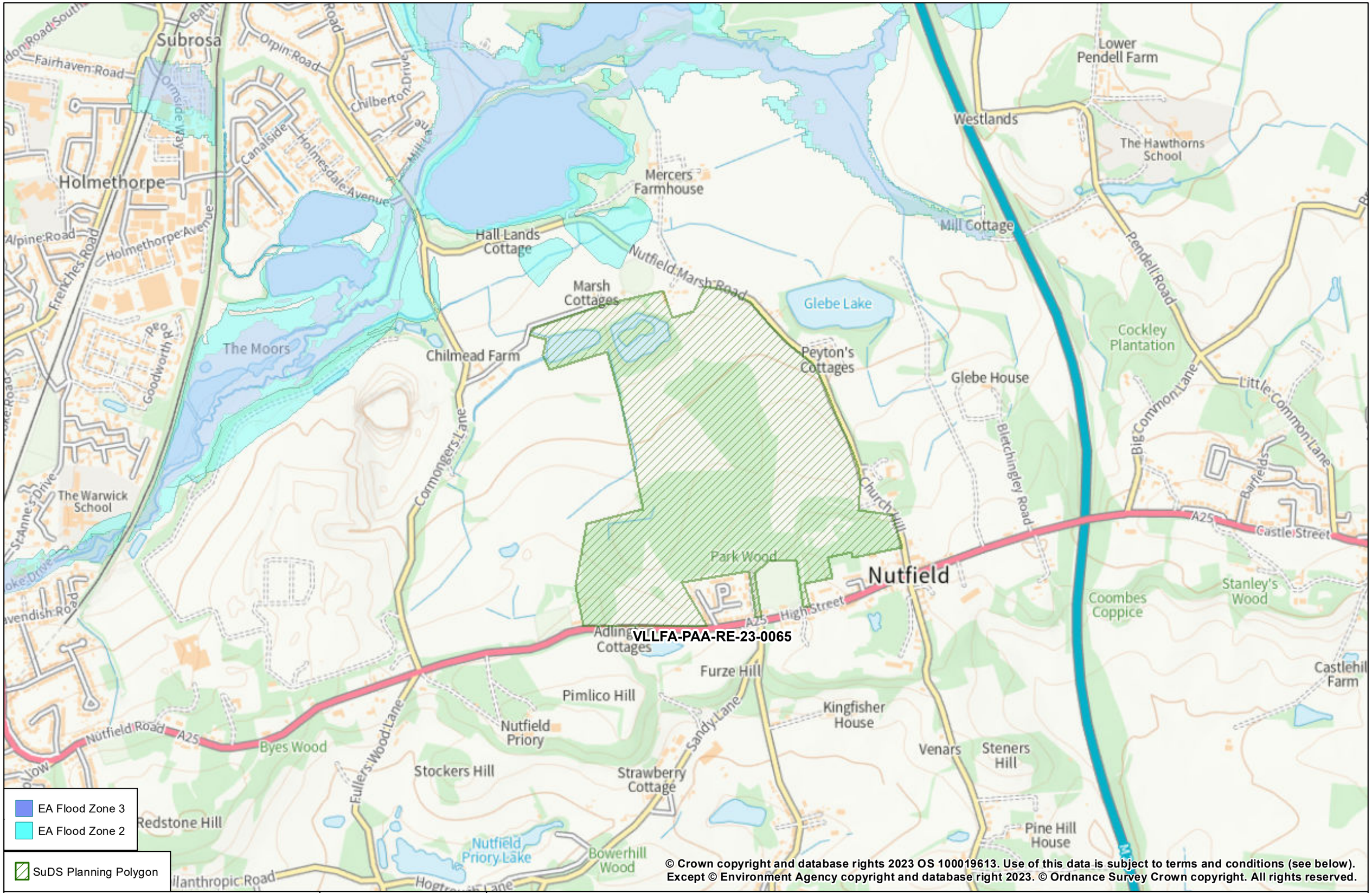
Created by: LM
Department: Flood & Climate Resilience
Printed on: 02/08/2023

Original Size A3

0 150 300 Metres

FLOOD RISK REPORT- VLLFA-PAA-RE-23-0065 - Site off A25, Nutfiled, Redhill, RH14HE
EA Statutory Main River and Watercourse
For use in reference to the Flood Risk Report only.

SURREY COUNTY COUNCIL



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Original Size A3
0 150 300 Metres

FLOOD RISK REPORT- VLLFA-PAA-RE-23-0065 - Site off A25, Nutfiled, Redhill, RH14HE
Fluvial Flood Risk
For use in reference to the Flood Risk Report only.

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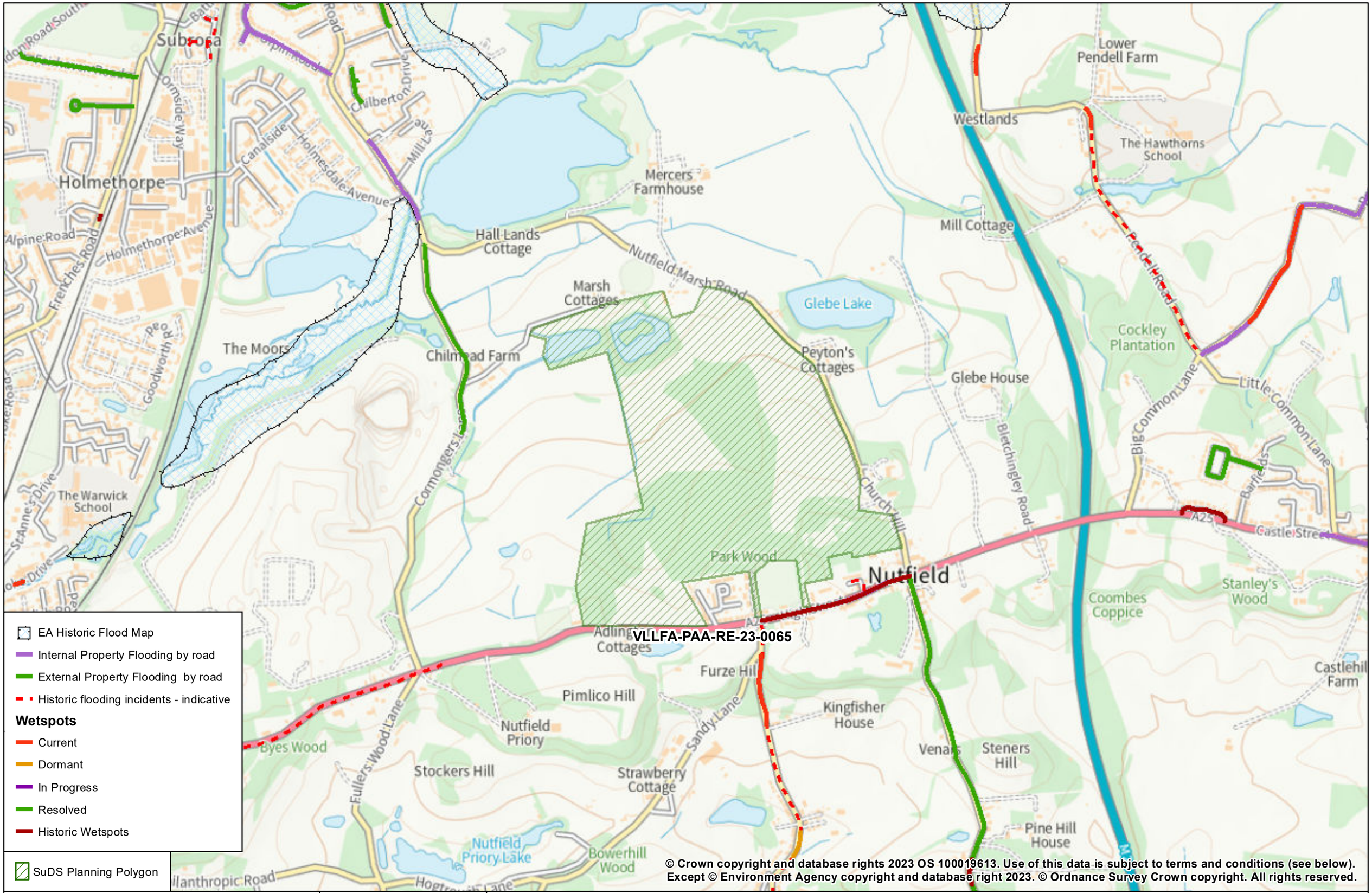

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Original Size A3
0 150 300 Metres

FLOOD RISK REPORT- VLLFA-PAA-RE-23-0065 - Site off A25, Nutfiled, Redhill, RH14HE
Historic Flood Evidence
For use in reference to the Flood Risk Report only.

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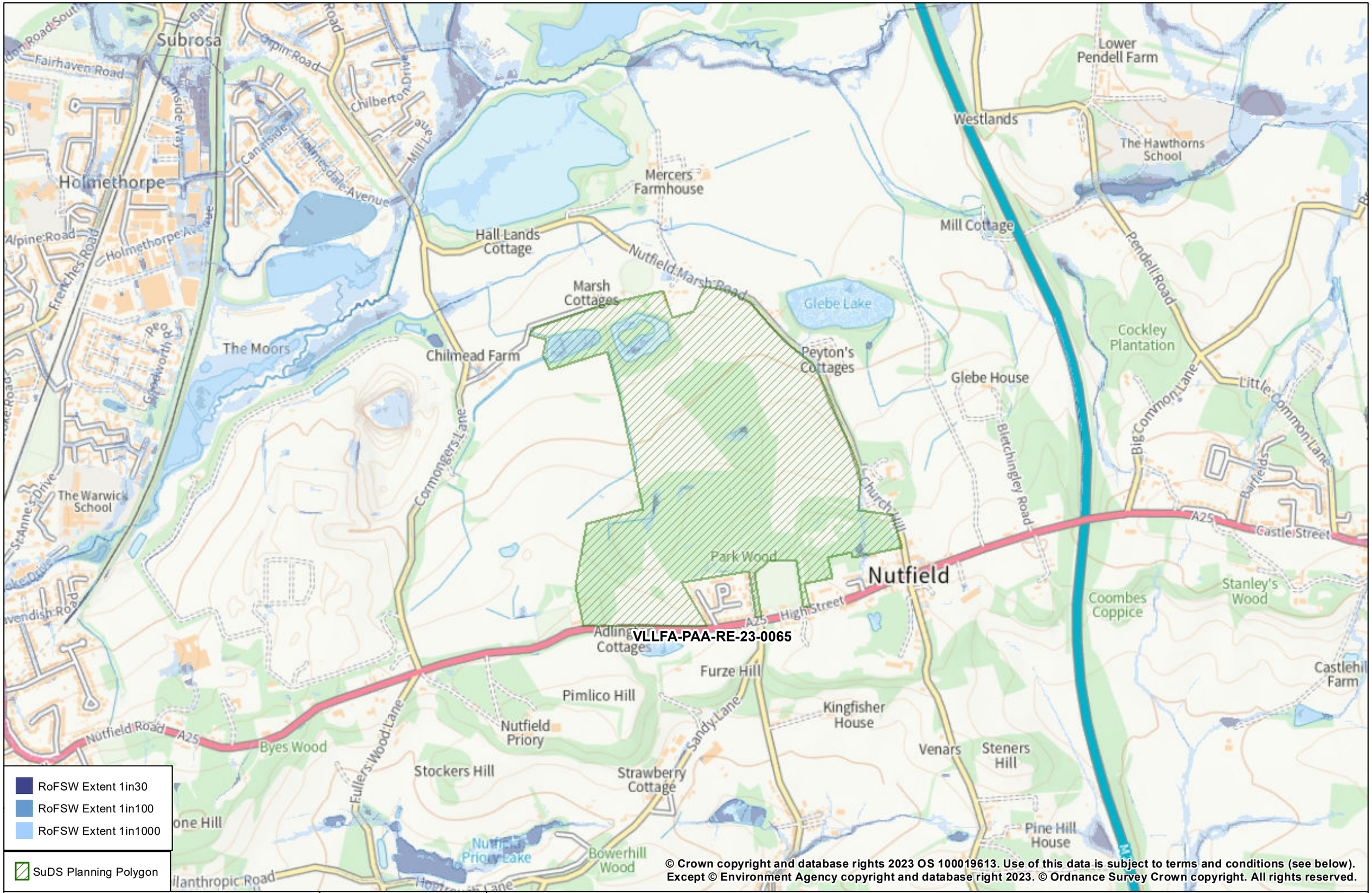

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Printed on: 02/08/2023

Original Size A3
0 150 300 Metres

FLOOD RISK REPORT- VLLFA-PAA-RE-23-0065 - Site off A25, Nutfiled, Redhill, RH14HE
Surface Water Flood Risk
For use in reference to the Flood Risk Report only.

SURREY COUNTY COUNCIL

Detailed Flood Risk Report Site off A25, Nutfield, Redhill RH1 4HE

08 August 2023

SURREY

Detailed Flood Risk Report

Purpose of Report

This document has been prepared for the purpose of providing flood risk information for a specific site; either to aid in the development of a planning application or for flood risk management. The information provided is that which is available to Surrey County Council at the time and may include specific guidance for Planners and Developers about Sustainable Drainage. Surrey County Council gives no guarantee that any flood risk information provided is100% accurate, or exhaustive; it is solely the information we currently hold.

The applicant is advised that there will need to be additional discussions with the County Council as Highway Authority in respect of any drainage proposals for proposed highway works under Section 278 or proposed adoption of new roads under Section 38 of the 1980 Highway Act. Consenting for the discharge of surface water to Ordinary Watercourses should also be directed to the County Council under the Land Drainage Act (1991).

Document History

This report relates to the following enquiry/pre-application request/planning application as:

SCC Application ID	Version	Originator	Date	Reviewer	Date
VLLFA-PAA-RE-23-0065	1.0	LM	02/08/2023	AD	03/08/2023

Glossary

The table below defines some of the frequently used terminology for your general information.

Acronym/Term	Definition
Annual Probability	Flood events are defined according to their likelihood of occurrence. The term 'annual probability of flooding' is used, meaning the chance of a particular flood occurring in any one year. This can be expressed as a percentage. For example, a flood with an annual probability of 1 in 100 can also be referred to as a flood with a 1% annual probability. This means that every year there is a 1% chance that this magnitude flood could occur.
Flood Zone 1	Area with a low probability of flooding from rivers (< 1 in 1,000 annual chance of flooding).
Flood Zone 2	Area with a medium probability of flooding from rivers (1 in 100 – 1 in 1,000 annual chance of flooding).
Flood Zone 3	Area with a high probability of flooding from rivers (> 1 in 100 annual chance of flooding).
Fluvial flooding	Exceedance of the flow capacity of river channels (whether this is a Main River or an Ordinary Watercourse), leading to overtopping of the river banks and inundation of the surrounding land. Climate change is expected to increase the risk of fluvial flooding in the future.
Infiltration SuDS	These are sustainable drainage systems which facilitate the infiltration of surface water into the ground. Once in the ground, the water percolates through the subsurface to the groundwater.
Groundwater flooding	Emergence of groundwater at the surface (and subsequent overland flows) or into subsurface voids as a result of abnormally high groundwater flows, the introduction of an obstruction to groundwater flow and / or the rebound of previously depressed groundwater levels.

Main River	Main rivers are usually larger streams and rivers, but some of them are smaller watercourses of local significance. Main Rivers indicate those watercourses for which the Environment Agency is the relevant risk management authority.
Ordinary Watercourse	Ordinary Watercourses are displayed in the mapping as the detailed river network. An ordinary watercourse is any watercourse (excluding public sewers) that is not a Main River, and the Lead Local Flood Authority or Internal Drainage Board are the relevant risk management authority.
Other sources of flood risk	Flooding from canals, reservoirs (breach or overtopping) and failure of flood defences.
Sewer flooding	Flooding from sewers is caused by exceedance of sewer capacity and / or a blockage in the sewer network. In areas with a combined sewer network system there is a risk that land and infrastructure could be flooded with contaminated water. In cases where a separate sewer network is in place, sites are not sensitive to flooding from the foul sewer system.
SFRA	Strategic Flood Risk Assessment
SWMP	Surface Water Management Plan
SuDS	Sustainable Drainage Systems
Surface water flooding	Intense rainfall exceeds the available infiltration capacity and / or the drainage capacity leading to overland flows and surface water flooding. Climate change is expected to increase the risk of surface water flooding in the future. This source is also referred to as pluvial flooding.
Tidal flooding	Propagation of high tides and storm surges up tidal river channels, leading to overtopping of the river banks and inundation of the surrounding land.
RoFSW	Risk of Flooding from Surface Water. The data shows areas at risk of flooding from surface water, for three flooding return periods (1 in 30, 1 in 100 and 1 in 1000), and the depth, velocity, hazard and flow direction associated with that flooding. It also includes; data on the models used to develop the maps and information that describes the suitable uses of the data.

Data Sources

The following sources of data have been used in preparing this report and its associated mapping:

- Geology- Bedrock and Superficial Deposits (British Geological Survey- 50,000 scale digital)
- Soilscapes (Cranfield University- http://www.landis.org.uk/soilscapes/)
- SuDS Suitability (British Geological Survey) https://www.bgs.ac.uk/datasets/infiltration-suds-map/
- Surface Water Flood Risk
    - Risk of Flooding from Surface Water (RoFSW) (Environment Agency) https://environment.data.gov.uk/dataset/90d2ff8f-d465-11e4-8cb5-f0def148f590
- Flood Map for Planning (Environment Agency)
    - Floodzones 2 & 3 https://environment.data.gov.uk/dataset/87446770-d465-11e4-b97a-f0def148f590
- Groundwater
    - Susceptibility to Groundwater Flooding (British Geological Survey) https://www.bgs.ac.uk/datasets/groundwater-flooding/
- Historic Flood Evidence
    - Historic Flood Map (Environment Agency)
    - Wetspots (Surrey County Council) https://www.surreycc.gov.uk/land-planning-and-development/interactive-map
    - Property Flooding Database (Surrey County Council)
    - Historic Flooding Incidents Database (Surrey County Council)
    - Highway flooding incidents and flood enquiries (Surrey County Council)

Site Flood Risk Information

Groundwater

Risk & Evidence

The majority of the site is located within an area which is classed as having a limited potential for groundwater flooding to occur.

The northwest boundary of the site is located within an area which is classed as having a potential for groundwater flooding to occur where there is property situated below ground level e.g. basements.

This is based on a conceptual understanding of the regional geology and hydrogeology and is therefore only an indication of where geological conditions could enable groundwater flooding to occur. It does not indicate hazard or risk and it does not provide any information on the depth to which groundwater flooding may occur or the likelihood of the occurrence of an event of a particular magnitude. This information should not be used on its own to make planning decisions at any scale, particularly site scale, or to indicate the risk of groundwater flooding.

Implications/Considerations for Planning

It is considered that there are no significant implications for surface water management on the site, relating to the site's susceptibility to groundwater flooding. However, this dataset is based on a conceptual understanding at a regional level. It is suggested that appropriate scale site based investigations are conducted to understand the groundwater regime on site.

Surface Water

Risk & Evidence

The area of interest is shown to be at risk of surface water flooding in the following return period events; 1 in 30, 1 in 100 and 1 in 1000 year. The surface water flood extents are not appropriate to be used in assessing flood risk at an individual property level. In addition, the methods used to derive the flood extents are based on modelled design rainfall (i.e. not observed patterns of rainfall) and consequently this information cannot definitively show that an area of land or property is, or is not, at risk of flooding.

The RoFSW have been created from the Environment Agency's nationally produced surface water flood mapping, and appropriate locally produced mapping from Lead Local Flood Authorities such as Surrey County Council. This means that in different areas, the flood extents have varying levels of suitability scales for viewing or assessing. This area's information is only suitable for assessing flood risk at a 'town to street' scale. This scale is suitable for identifying which parts of towns or streets are at risk, or which towns or streets have the most risk. It is likely to be reliable for a local area, but not individual properties.

Implications/Considerations for Planning

In areas at risk of surface water flooding, the following sections outline considerations for the appropriate management of surface water, based on the information provided to Surrey County Council.

Historical Flooding

Risk & Evidence

The Historic Flood Map shows that there is no record of this area being previously flooded by rivers, groundwater or a combination of these sources. However this does not necessarily mean that flooding has not occurred, just that it has not been reported and/or recorded within the Historical Flood Map dataset.

Wetspots indicate the approximate location of known previous flooding on the highway. There is a wetspot near to the area of interest and this highlights that there has been historic flooding in the vicinity.

According to Surrey County Council's Property Flooding Database, there have been previous instances of property flooding nearby, either internally or externally. The instances of property flooding occurred Winter 2013/2014 and Summer 2020. Property flooding is sensitive information and this is why more specific details on the location of flooding cannot be provided. Whilst this dataset is the most comprehensive record of property flooding in Surrey, there may be instances of property flooding which were not reported and therefore are not recorded in this dataset.

Surrey County Council's Historic Flooding Incident Database highlights all reported, non point location specific, flooding incidents e.g. example road was flooded. The data indicates that there is a nearby location which has previously reported flooding.

Implications/Considerations for Planning

In areas which have been previously affected by flooding, the following should be considered:
• Is there a safe access/egress route demonstrated?
• Is there an evacuation plan in place?
• Have resilience/resistance measures been considered in the design?

SuDS Suitability

The selection of SuDS should be considered in the early stages of design. The selection criteria, as set out by The SuDS manual (CIRIA C753 - 2015), provides a good framework for doing this. Surrey County Council has its own guidance which can be access at:

Sustainable Drainage System Design Guidance - Surrey County Council (surreycc.gov.uk)

https://www.surreycc.gov.uk/community/emergency-planning-and-community-safety/flooding-advice/more-about-flooding/suds-drainage/drainage-guidance

Potential for Infiltration Drainage

Surrey County Council is licensed to use the Infiltration SuDS Data produced by the British Geological Survey. This data was produced after the Pitt Review (2007) and aims to encourage the appropriate use of SuDS. By utilising SuDS, the reliance on traditional piped systems is reduced, and the sustainable management of surface water is encouraged.
The Infiltration SuDS data is used to make a preliminary assessment of the suitability of the subsurface for infiltration drainage. This data is not a replacement for a soakaway test or site investigation which must be completed to support a planning application.

The suitability of utilising infiltration techniques has been summarised for the application site below.

Source Protection Zones

If proposed works result in infiltration of surface water to ground within a Source Protection Zone the Environment Agency will require proof of surface water treatment to achieve water quality standards.

Constraints to Infiltration

There are no significant constraints to using infiltration drainage techniques at this site.

Drainage Potential

The subsurface is potentially suitable for infiltration drainage for the northwest of the site although the design may be influenced by the ground conditions.

The subsurface is probably suitable for infiltration drainage for the middle section of the site although the design may be influenced by the ground conditions.

The subsurface is likely to be suitable for free-draining infiltration drainage for the southeast and northeast of the site.

It is recommended to quantify the infiltration rate via an infiltration/soakaway test.

Stability of Ground

Ground instability problems are probably present. Increased infiltration may result in ground instability. Before installing infiltration drainage consider the potential for or the consequences of infiltration on ground stability.

Groundwater Vulnerability

The groundwater may be vulnerable to contamination for the south of the site. Where surface water is being infiltrated into the ground, this water should be free of contaminants. Before installing infiltration drainage, consider the risks associated with the transport of contaminants to the groundwater. Check previous land use and potential for the presence of contaminated ground.

The groundwater is not expected to be especially vulnerable to contamination for the north of the site. Where surface water is being infiltrated into the ground, this water should be free of contaminants. There are no known constraints regarding the susceptibility of the groundwater to contaminants, however it is recommended to check the previous land use to understand whether the ground is contaminated.

Superficial Deposit Permeability

There is no information on superficial deposits for the site.

Bedrock Permeability

The bedrock permeability is spatially variable for the Southeast of the site, but likely to permit moderate infiltration.
Bedrock is likely to be free-draining for the North part of the site.
It is recommended that the infiltration rate is quantified via an infiltration/soakaway test.

Proposed Approach

Drainage and Discharge Methods

The application site comprises land over 1ha and therefore is classified as ‘Major’ Development. Any planning application classified as Major Development will need to include a detailed drainage strategy. As per the NPPF, all ‘major’ planning applications being determined must include full details about surface water drainage and sustainable drainage systems, which is a material consideration.

Some areas of the site may be suitable for infiltration-based SuDS techniques however ground conditions and groundwater levels should be fully investigated through intrusive ground investigations and should be provided to support any Planning Application made in respect of the site.

Our guidance documents require that soakage test results should be completed to accompany both full and outline planning applications. If intrusive investigations cannot be completed to accompany any future planning application the applicant should provide robust justification and evidence as to why.

A hierarchical approach should be taken to the discharge of surface water from the site.

- Option 1 - to ground;
- Option 2 - attenuation and discharge to adjacent watercourse;
- Option 3 - attenuation and discharge to surface water sewer.

If infiltration is proposed any future drainage design should demonstrate that a 1m unsaturated zone between the base of any proposed soakaway and highest recorded groundwater level exist.

Any surface water discharged from the site should be restricted to the existing greenfield run-off rate applied to the impermeable area of the site only. Qbar is considered acceptable (applied to the proposed impermeable area only) or a staged discharge approach with greenfield run-off rates applied to the 1 in 1 year, 1 in 30 year and 1 in 100 year events accordingly.

In accordance with Technical Standard S2:

‘For greenfield developments, the peak runoff rate from the development to any highway drain, sewer or surface water body for the 1 in 1 year rainfall event and the 1 in 100 year rainfall event should never exceed the peak greenfield runoff rate for the same event.’

On site attenuation should be provided for the 1 in 100 year + climate change rainfall event. The upper end allowance should be applied for climate change for residential development. A lower % for climate change may be considered acceptable for commercial property dependent upon the life span of the development, however sensitivity testing will be required up to the upper end allowance event.

In 2022 the peak rainfall allowances in ‘Flood risk assessments: climate change allowances’ were updated so they reflect the latest projections in UKCP Local (2.2km) and subsequent research ‘FUTURE-DRAINAGE: Ensemble climate change rainfall estimates for sustainable drainage’. The site is located within the Mole Management Catchment and therefore the 1% annual exceedance rainfall event for the 2070s Epoch should be considered as the upper end allowance of 40%.

Where appropriate, a 10% allowance for urban creep should be included in the drainage designs.

If proposed site works affect an Ordinary Watercourse, Surrey County Council as the Lead Local Flood Authority should be contacted to obtain prior written Consent. More details are available on our website.

Our records indicate that one or more Ordinary Watercourses may be located within the site boundary, these watercourses should be accommodated within the site layout. Watercourses should not be culverted except for where access is required (such works will require consent), the site layout should allow for access to any watercourse for maintenance and generally they should be located within publicly accessible areas.

Further to a MS Teams meeting with the Applicant on 25 July 2023 the following points were discussed and must be considered as part of any planning application for the site.

Any future planning application should:

- Demonstrate how the recreation ponds will provide the additional storage for the western catchment – this should include design storage levels for the existing and proposed scenarios.
- Identify who will be responsible for maintaining the suds features and how they will be maintained.
- Propose additional suds features such as rain gardens, green roofs, etc for the non-residential areas to provide wider benefits.
- Must consider if any remedial works are required to the proposed outfall culvert and how access would be gained to do so, or a new outfall constructed should the pipe not be suitable to receive flows from the site.
- Consider whether there is any flood risk from the existing 150mm dia. pipe that outfalls through the site from the southern pond over the life time of the development, due to climate change. The existing pond to the south may overflow more frequently into the pipe so please consider whether diverting or retaining as like for like is appropriate.

SuDS Components

Paragraph 169 of NPPF states ‘Major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate. The systems used should:

a) *take account of advice from the lead local flood authority;*
b) *have appropriate proposed minimum operational standards;*
c) *have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and*
d) *where possible, provide multifunctional benefits’.*

Many schemes deliver the management of water quantity but do not fulfil the four pillars of SuDS design as defined by the SuDS Manual. The manual seeks to encourage schemes that manage the quantity and quality of surface water runoff, provide an amenity that integrates surface water as an attractive part of public space and also enhance biodiversity. Schemes based around the management of quantity alone are purely drainage schemes not SuDS.

As required by the NPPF all development should incorporate sustainable drainage systems, unless there is clear evidence that this would be inappropriate.

The following proposals for SuDS have been put forward as part of the drainage design:

Infiltration should be considered in the first instance however due to the likelihood of a high water table adjacent to the Ordinary Watercourses infiltration may not be suitable. Intrusive ground investigations should be completed to determine ground conditions and assess groundwater levels.

All SuDS principles could be affected if groundwater levels are high, and therefore this information should be gathered to inform the drainage strategy.

If soakaways are unsuitable, above ground attenuation of surface water should be considered in the first instance before below ground storage is proposed. If above ground attenuation of surface water is not considered feasible full justification should be provided.

The Applicant should consider the management and maintenance of the proposed SuDS elements and this information should be presented as part of any Planning Application.

Site Development Details: Cross-check

The table below cross-checks the information provided with the planning application, with information easily available to Surrey County Council and provides recommendations on the suitability of the proposed drainage.

Site Details	Description
Bedrock	The Northern part of the site is Sandstone (Folkestone Formation). The Southern part of the site is Sandstone and Mudstone (Sandgate Formation)
Superficial Deposits	Unspecified (majority of the site). River Terrace deposits (Northern boundary of the site).
Soils	Soilscapes conveys a summary of the broad regional differences in the soil landscapes of England and Wales. Soilscapes is not intended as a means for supporting detailed assessments, such as land planning applications or site investigations; nor should it be used to support commercial activities. For such applications, a parallel service Soils Site Reporter provides comprehensive reporting for specific locations. Ground investigations should also be evidenced when considering infiltration drainage. Freely draining slightly acid loamy soils.
Depth to Water Table (m)	Groundwater is likely to be more than 5 m below the ground surface throughout the year for the majority of the site. Observations of seasonal variations in groundwater level are recommended. Groundwater is likely to be less than 3 m below the ground surface for at least part of the year for the northwestern boundary of the site. It is recommended that the seasonal variation in groundwater levels are determined. The scale of site specific assessments and evidence of groundwater levels should be appropriate to the size and nature of the proposed development site. This Northwestern boundary of the site may not be suitable for infiltration SuDS if the groundwater level reaches <1m below the ground surface.

Discharge method- Sewer (if applicable)	The nearest sewer is more than 50m from the proposed development. This indicates that discharging to the sewer may not be feasible. Infiltration SuDs are mandatory unless where evidenced that they are not appropriate (e.g. contaminated land, high ground water levels or land subsidence). If SuDS are not appropriate, then evidence that connecting to the sewer network is appropriate and has been permitted by the water utility company should be provided along with any third part land permissions.
Discharge method- Watercourse (if applicable)	The nearest watercourse is less than 50m from the proposed development. This indicates that discharging to the watercourse may be appropriate. Consideration should be given to the downstream flood risk and water quality of the watercourse. When discharging to watercourses, there should be a minimum of an 8m buffer from any building for access and maintenance.

Recommendations and Summary

Any surface water discharged from the site should be limited to the existing greenfield run-off rate applied to the proposed positively drained area of the site only.

Evidence must be provided to establish the greenfield runoff rate for the site. For previously developed sites, evidence must be provided where the greenfield runoff rate cannot be reasonably practicably achieved.

On site attenuation should be provided for the 1 in 100 year + climate change rainfall event, with a sensitivity check up to the 1 in 100 year upper end allowance event if not used already.

SCC Surface water drainage pro-forma should be completed to accompany any future Planning Applications with supporting evidence provided.

If proposed site works affect an Ordinary Watercourse, Surrey County Council as the Lead Local Flood Authority should be contacted to obtain prior written Consent. More details are available on our website.

If proposed works result in infiltration of surface water to ground within a Source Protection Zone the Environment Agency will require proof of surface water treatment to achieve water quality standards.

Ordinary Watercourse Consent

If proposed site works affect an Ordinary Watercourse, Surrey County Council as the Lead Local Flood Authority should be contacted to obtain prior written Consent. More details are available on our website Ordinary watercourse consents - Surrey County Council (surreycc.gov.uk).

Additional Information Sources

BRE365. Soakaway Design

Surrey County Council SuDS Design Guidance

CIRIA. 2015. The SuDS Manual (C753).

Defra. 2015. Sustainable Drainage Systems: Non-statutory technical standards for sustainable drainage systems.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/415773/sustainable-drainage-technical-standards.pdf

Water Places People https://www.susdrain.org/files/resources/other-guidance/water_people_places_guidance_for_master_planning_sustainable_drainage_into_developments.pdf

NPPF https://www.gov.uk/government/publications/national-planning-policy-framework--2

Local Flood Strategy https://www.surreycc.gov.uk/community/emergency-planning-and-community-safety/flooding-advice/more-about-flooding/surrey-local-flood-risk-management-strategy

LPA Websites - SFRAs and SPD

Reigate & Banstead
SFRA - Strategic Flood Risk Assessment (SFRA) | Reigate and Banstead (reigate-banstead.gov.uk)
SPD - Adopted SPDs and SPGs | Supplementary Planning Documents and Supplementary Planning Guidance | Reigate and Banstead (reigate-banstead.gov.uk)

Surrey County Council
PFRA - The Preliminary Flood Risk Assessment - Surrey County Council (surreycc.gov.uk)

Appendix B – LLFA Consultee Final Response

[redacted]

From: Laura Moyano <Laura.Moyano@surreycc.gov.uk>
Sent: 13 December 2023 10:38
To: Peter Lee
Cc: Statutory
Subject: LLFA-TA-23-1565 - Nutfield Green Park, The Former Laporte Works, Nutfield Road
Attachments: LLFA-TA-23-1565 Nutfield Green Park.pdf

Our ref: LLFA-TA-23-1565
Your ref: 2023/1281
FAO Peter Lee

Dear Peter,

Please see attached our response to the planning application above, should you have any queries please do not hesitate to contact me.

Kind Regards,

Laura Moyano
Senior Flood and Climate Resilience Officer
Environment, Infrastructure & Growth
surreycc.gov.uk

Please consider the environment before printing this email

Case Officer: Laura Moyano
E-mail: SUDS@surreycc.gov.uk

Recommendation (mark one with X)

Further/amended information required	
No objection	
No objection – Subject to conditions	**x**
Objection	

Flood Risk, Planning, and
Consenting Team
Whitebeam Lodge
Merrow Lane
Guildford
Surrey
GU4 7BQ

Our ref: **LLFA-TA-23-1565**
Your ref: **2023/1281**
Date: **13/12/2023**

Dear Planning Authority,

Nutfield Green Park, The Former Laporte Works, Nutfield Road

Thank you for consulting Surrey County Council as the Lead Local Flood Authority on the above Outline Planning Application. We have reviewed the surface water drainage strategy for the proposed development and assessed it against the requirements of the NPPF, its accompanying PPG and the Non-Statutory Technical Standards for sustainable drainage systems.

As part of our statutory consultee role our advice relates to surface water flood risk and surface water drainage only, the Environment Agency should be contacted for advice in relation to fluvial flood risk.

Consultation request date: 27/11/2023
The following documents submitted as part of the above application have been reviewed and should be referred to as part of any future submissions or discharge of planning conditions:

- Flood Risk Assessment and Drainage Strategy, October 2023, WIE19222-100-R-1-3-1-FRA Second Issue 12/10/2023, Waterman;
- A site investigation of land at the former laporte works site at nutfiled green park, October 2023, HGH/NU/JRC/20064/01F, MJCA;

We are satisfied that the proposed drainage scheme meets the requirements set out in the aforementioned documents and are content with the development proposed, subject to our advice below.

Our advice would be that, should planning permission be granted, suitably worded conditions are applied to ensure that the SuDS Scheme is properly implemented and maintained throughout the lifetime of the development. Suggested conditions are below:

1) The development hereby permitted shall not commence until details of the design of a surface water drainage scheme have been submitted to and approved in writing by the planning authority. The design must satisfy the SuDS Hierarchy and be compliant with the national Non-Statutory Technical Standards for SuDS, NPPF and Ministerial Statement on SuDS. The required drainage details shall include:

a) Evidence that the proposed final solution will effectively manage the 1 in 30 (+35% allowance for climate change) & 1 in 100 (+40% allowance for climate change) storm events and 10% allowance for urban creep during all stages of the development. The final solution should follow the principles set out in the approved drainage strategy. Associated discharge rates and storage volumes shall be provided using a maximum discharge rate **of 56.8 l/s.**

b) Detailed drainage design drawings and calculations to include: a finalised drainage layout detailing the location of drainage elements, pipe diameters, levels, and long and cross sections of each element including details of any flow restrictions and maintenance/risk reducing features (silt traps, inspection chambers etc.).

c) A plan showing exceedance flows (i.e. during rainfall greater than design events or during blockage) and how property on and off site will be protected from increased flood risk.

d) Details of drainage management responsibilities and maintenance regimes for the drainage system.

e) Details of how the drainage system will be protected during construction and how runoff (including any pollutants) from the development site will be managed before the drainage system is operational.

Reason: To ensure the design meets the national Non-Statutory Technical Standards for SuDS and the final drainage design does not increase flood risk on or off site.

2) Prior to the first occupation of the development, a verification report carried out by a qualified drainage engineer must be submitted to and approved by the Local Planning Authority. This must demonstrate that the surface water drainage system has been constructed as per the agreed scheme (or detail any minor variations), provide the details of any management company and state the national grid reference of any key drainage elements (surface water attenuation devices/areas, flow restriction devices and outfalls), and confirm any defects have been rectified.

Reason: To ensure the Drainage System is constructed to the National Non-Statutory Technical Standards for SuDS.

Informative
If proposed site works affect an Ordinary Watercourse, Surrey County Council as the Lead Local Flood Authority should be contacted to obtain prior written Consent. More details are available on our website.

If proposed works result in infiltration of surface water to ground within a Source Protection Zone the Environment Agency will require proof of surface water treatment to achieve water quality standards.

Sub ground structures should be designed so they do not have an adverse effect on groundwater.

If there are any further queries please contact the Flood Risk, Planning, and Consenting Team via SUDS@surreycc.gov.uk. Please use our reference number in any future correspondence.

Yours faithfully

Laura Moyano
Senior Flood & Climate Resilience Officer
For the Flood Risk, Planning, and Consenting Team

[redacted]

From: KSLPlanning <KSLPLANNING@environment-agency.gov.uk>
Sent: 05 April 2024 12:31
To: Peter Lee; Statutory
Subject: RE: Notification for 2023/1281
Attachments: 131398 - Nutfield Green Park.pdf

FAO Peter Lee

Dear Peter,

Thank you for consulting us on the above application. Please find attached our response.

Please do not hesitate to contact me should you have any queries on our comments.

Kind regards,
Gabrielle

Gabrielle Delorme
Planning Specialist – Kent and South London Sustainable Places
Environment Agency | Orchard House, Endeavour Park, Addington, West Malling, Kent, ME19 5SH
☎ +447570445791 kslplanning@environment-agency.gov.uk

Pronouns: she/her (why is this here?)

Does Your Proposal Have Environmental Issues or Opportunities? Speak To Us Early!
If you're planning a new development, we want to work with you to make the process as smooth as possible. We offer a bespoke advice service where you will be assigned a project manager who will be a single point of contact for you at the EA, giving you detailed specialist advice. This early engagement can significantly reduce uncertainty and delays to your project. More information can be found on our website here

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From: noreply@salesforce.com <noreply@salesforce.com> **On Behalf Of** Customer Services
Sent: Tuesday, February 6, 2024 9:45 AM
To: KSLPlanning <KSLPLANNING@environment-agency.gov.uk>; kwaite@tandridge.gov.uk
Subject: Notification for 2023/1281

Appendix C – EA Consultee Final Response

Dear Environment Agency,
You are being notified of the following planning application

Application:	2023/1281
Proposal:	Outline planning permission for the development of the site for new homes (Use Class C3) and Integrated Retirement Community (Use Classes C2, E(e), F2), creation of new access, landscaping and associated works to facilitate the development, in phases which are severable (Outline with all matters reserved, except for Access). (Additional Information Received 05.02.2024 Re: Highways and Ecology Issues)
Location:	Nutfield Green Park, The Former Laporte Works, Nutfield Road, Nutfield, Surrey,

If calling please ask for Peter Lee

On
Email: plee@tandridge.gov.uk
Fax: 01883 722015

I refer to the above application and would be grateful if you would send me your formal observations **14** days of the date of this email.

The quickest and most efficient way to send your observations is by email to statutory@tandridge.gov.uk. However, if this is not possible please post (or fax) your response to reach the Council within the 14 day period. Please quote the application number clearly in your response. When commenting please let us know your full postal address.

All comments received by the Council on planning applications are scanned and made available on the Council's website. Where applicable, you may prefer that certain personal details, such as a private telephone number or email address or other personal details (including signature) are not published on the internet, in which case you should ensure that such details are not contained in your response.

Details of the application, including plans and supporting documentation, can be viewed online at https://tdcplanningsearch.tandridge.gov.uk. You can also comment on the application directly from the web site although long responses should still be emailed. Full instructions are enclosed. If you feel you require a paper copy of some of the documentation or need to have a direct link to the application documents page then please email us at planningadministration@tandridge.gov.uk.
Yours faithfully,

David Ford

Chief Executive

creating a better place
for people and wildlife

Environment Agency

FAO Peter Lee
Tandridge District Council

Sent via email

Our ref: KT/2024/131398/01-L01
Your ref: 2023/1281

Date: 05 April 2024

Dear Peter,

Outline planning permission for new homes (use class C3) and integrated retirement community (use classes C2, E(e), F2), creation of new access, landscaping and associated works to facilitate the development, in phases which are severable (outline with all matters reserved, except for access). (Additional information received 05.02.2024 re: highways and ecology issues)

Nutfield Green Park, The Former Laporte Works, Nutfield Road, Nutfield, Surrey

Thank you for consulting the Environment Agency on the above application which we received on 6 February 2024. We have reviewed the available information and have the following comments to make.

Environment Agency Position

We **do not have any objection** to the proposed development **subject to the following conditions** being attached to any planning permission.

Groundwater and Contaminated Land

The site is situated on both the Sandgate and the Folkestone Formation which are designated as Secondary A and Principal Aquifers respectively. The site is not situated within a Source Protection Zone but is situated within a High Groundwater Vulnerability area. The site's previous use as a quarry and historic landfill poses a high risk of residual contamination that could be mobilised during construction to pollute controlled waters.

Drainage:
It is understood from the Flood Risk Assessment and Drainage Strategy produced by Waterman (Ref: WIE19222-100-R-1-3-1-FRA, dated October 2023) that surface water is to discharge to existing ponds, which are to discharge to an adjacent surface water feature. It is also understood that foul water is to be discharged via mains sewer. This is considered acceptable from a groundwater quality perspective, however, should these plans change, we would wish to be consulted further.

Land affected by contamination:
It is understood from the Site Investigation Report produced by MJCA (ref:

HGH/NU/JRC/20064/01F, dated October 2023) that elevations of contaminants were generally found to be below that of the Generic Assessment Criteria (GAC) for residential with home ground produce. It is also noted that 4no. groundwater samples were collected and analysed for a generic suite of contaminants and identified single elevations of sulphate, dissolved zinc and ammoniacal nitrogen, when compared against the Drinking Water Standards (DWS). This is acceptable in principle, however the number of samples collected is not considered to be proportional to the size of the site. It is also understood that the samples taken are considered to be of perched groundwater within the historic quarry and landfill and not representative of the water table. A Desk Study is noted to have been developed for the site however this does not appear to have been made available for review. This document should also be submitted to the local authority in conjunction with the EA for review.

Therefore, we consider that planning permission could be granted to the proposed development as submitted if the following planning conditions are included as set out below. Without these conditions, the proposed development on this site poses an unacceptable risk to the environment and we would object to the application.

Condition 1 (Land Contamination Investigation)
No development approved by this planning permission shall commence until a strategy to deal with the potential risks associated with any contamination of the site has been submitted to, and approved in writing by, the Local Planning Authority. This strategy will include the following components:

1. A preliminary risk assessment which has identified:
   - all previous uses;
   - potential contaminants associated with those uses;
   - a conceptual model of the site indicating sources, pathways and receptors; and
   - potentially unacceptable risks arising from contamination at the site.

2. A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.

3. The results of the site investigation and the detailed risk assessment referred to in (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.

4. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.
Any changes to these components require the written consent of the local planning authority. The scheme shall be implemented as approved.

Reason:
To ensure that the development does not contribute to, or is not put at unacceptable

risk from, or adversely affected by, unacceptable levels of water pollution in line with paragraph 180 of the National Planning Policy Framework.

Condition 2 (Verification Report)
Prior to any part of the permitted development being occupied a verification report demonstrating the completion of works set out in the approved remediation strategy and the effectiveness of the remediation shall be submitted to, and approved in writing, by the local planning authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.

Reason:
To ensure that the site does not pose any further risk to human health or the water environment by demonstrating that the requirements of the approved verification plan have been met and that remediation of the site is complete. This is in line with paragraph 180 of the National Planning Policy Framework.

Condition 3 (Unsuspected Contamination)
If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until a remediation strategy detailing how this contamination will be dealt with has been submitted to and approved in writing by the Local Planning Authority. The remediation strategy shall be implemented as approved.

Reason:
To ensure that the development does not contribute to, or is not put at unacceptable risk from, or adversely affected by, unacceptable levels of water pollution from previously unidentified contamination sources at the development site in line with paragraph 180 of the National Planning Policy Framework.

Condition 4 (Boreholes)
A scheme for managing any borehole installed for the investigation of soils, groundwater or geotechnical purposes shall be submitted to and approved in writing by the local planning authority. The scheme shall provide details of how redundant boreholes are to be decommissioned and how any boreholes that need to be retained, post-development, for monitoring purposes will be secured, protected and inspected. The scheme as approved shall be implemented prior to the occupation of any part of the permitted development.

Reason:
To ensure that redundant boreholes are safe and secure, and do not cause groundwater pollution or loss of water supplies in line with paragraph 180 of the National Planning Policy Framework.

Condition 5 (Piling)
Piling or any other foundation designs using penetrative methods shall not be permitted other than with the express written consent of the Local Planning Authority, which may be given for those parts of the site where it has been demonstrated by a piling risk assessment that there is no resultant unacceptable risk to groundwater. The development shall be carried out in accordance with the approved details.

Reason:
To ensure that the development does not contribute to, or is not put at unacceptable risk from, or adversely affected by, unacceptable levels of water pollution caused by mobilised contaminants in line with paragraph 180 of the National Planning Policy Framework.

Informative 1 (Piling)
Piling can result in risks to groundwater quality by mobilising contamination when boring through different bedrock layers and creating preferential pathways. Thus it should be demonstrated that any proposed piling will not result in contamination of groundwater. If Piling is proposed, a Piling Risk Assessment must be submitted, written in accordance with EA guidance document "Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention. National Groundwater & Contaminated Land Centre report NC/99/73".

Informative 2 (Waste)
Contaminated soil that is, or must be disposed of, is waste. Therefore, its handling, transport, treatment and disposal is subject to waste management legislation, which includes:

- Duty of Care Regulations 1991
- Hazardous Waste (England and Wales) Regulations 2005
- Environmental Permitting (England and Wales) Regulations 2010
- The Waste (England and Wales) Regulations 2011

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically in line with British Standard BS EN 14899:2005 'Characterization of Waste - Sampling of Waste Materials - Framework for the Preparation and Application of a Sampling Plan' and that the permitting status of any proposed treatment or disposal activity is clear. If in doubt, the Environment Agency should be contacted for advice at an early stage to avoid any delays.
If the total quantity of waste material to be produced at or taken off site is hazardous waste and is 500kg or greater in any 12-month period the developer will need to register with us as a hazardous waste producer.

Advice to applicant

If the imported materials are classified as waste then DOW:COP will not be sufficient and a deposit for recovery permit will be required. Please consult the following link for more details: Waste: environmental permits - GOV.UK (www.gov.uk)

Note to applicant

Planning advice service
Should you wish us to review any technical documents or want further advice to meet the requirements of the conditions recommended, we may do this as part of our charged for planning advice service.

Further engagement will provide you with certainty of our position as to what our response to your planning application will be. It should also result in a better quality and more environmentally sensitive development.

As part of our charged for service we will provide a dedicated project manager to act as a single point of contact to help resolve any problems. We currently charge £100 per hour, plus VAT. We will provide you with an estimated cost for any further discussions or review of documents. The standard terms of our charged for service are available here.

If you would like more information on our planning advice service, including a cost estimate, please contact us at kslplanning@environment-agency.gov.uk.

Note to LPA

Condition Wording
If you wish to amend the wording of our requested conditions or if you wish to merge them with other Local Planning Authority conditions, please contact us to discuss the revised wording.

Decision notice
In accordance with the planning practice guidance (determining a planning application, paragraph 019), please notify us by email within two weeks of a decision being made or application withdrawn. Please provide us with a URL of the decision notice, or an electronic copy of the decision notice or outcome.

Should you have any queries regarding this response, please contact me.

Yours sincerely,

On behalf of Briana King

Gabrielle Delorme
Sustainable Places Planning Specialist

E-mail kslplanning@environment-agency.gov.uk