(1) **HARVEY BERWICK**

(2) **HARVEY BERWICK AND HEATHER KAREN BERWICK**

(3) **HORSHAM DISTRICT COUNCIL**

AGREEMENT

Pursuant to section 106 of the Town and Country Planning Act 1990 in respect of

Land at Tanners Farm, Mayes Lane, Warnham, Horsham, West Sussex RH12 3SG

Lauren Kelly – Head of Legal and Democratic Services
Horsham District Council
Parkside
Chart Way
Horsham
West Sussex
RH12 1RL

Planning Ref: DC/23/0030 & HRA/24/0002
Legal Ref: CB/11853

THIS AGREEMENT is made as a deed and dated 21st November **2024**

Between:

(1) **HARVEY BERWICK** of 7 Wheelers Lane, Brockham, Betchworth RH3 7LA (**"the Owner"**); and

(2) **HARVEY BERWICK and HEATHER KAREN BERWICK** of 7 Wheelers Lane, Brockham, Betchworth RH3 7LA (**"the Offsetting Site Owners"**);

(3) **HORSHAM DISTRICT COUNCIL** of Parkside, Chart Way, Horsham, West Sussex RH12 1RL (**"the Council"**)

together "the Parties"

1. BACKGROUND & RECITALS

Whereas

1.1 The Council is the local planning authority as defined in the Act for the area within which the Application/ Offsetting Site is situated for the purposes of this Agreement and for the purposes of section 106 of the Act.

1.2 The Owner is the registered proprietor of the Application Site with title absolute of land registered at HM Land Registry comprising part of title number [redacted]

1.3 The Offsetting Site Owners are the registered proprietors of the Offsetting Site with title absolute of land registered at HM Land Registry under title number [redacted]

1.4 The Application for prior approval consent was received by the Council on 6th January 2023, validated on 18th January 2023 and permitted subject to conditions on 8th January 2024 including obtaining the Regulation 77 Consent.

1.5 On 26th February 2024 the Application for the Regulation 77 Consent was submitted to the Council and is to be granted by the Council subject to the completion of this Agreement to secure the planning obligations herein.

1.6 The Council's administrative area is situated in an area of serious water stress as identified by the Environment Agency's Water Stressed Areas Classification.

1.7 The water statutory undertaker, Southern Water, supplies drinking water to the Council's administrative area from the SNWSZ.

1.8 In September 2021 Natural England released the Position Statement which requires that any new development within the SNWSZ must be Water Neutral. The Parties agree that the Development must be Water Neutral and have entered into this Agreement to secure the required mitigation by securing the Application Site Measures and the Offsetting Site Measures and to bind the Application Site and the Offsetting Site.

1.9 Regulation 75 of the 2017 Regulations requires that any planning permission, granted after 30th November 2017 by virtue of the 2015 Order, that could have a likely significant effect on certain ecologically important sites must not be begun until the developer has received prior approval from the local planning authority under Regulation 77 of the 2017 Regulations.

1.10 The Owner and the Offsetting Site Owner are willing to enter into and for the Application Site and the Offsetting Site respectively to be bound by the obligations and be subject to the restrictions in this Agreement on the terms set out herein.

1.11 The Parties are satisfied that the provisions of this Agreement comply with the requirements of regulation 122 of the Community Infrastructure Levy Regulations 2010 (as amended) and, accordingly, that the planning obligations contained in this Agreement are necessary to make the Development acceptable in planning terms, are directly related to the Development and fairly and reasonably relate in scale and kind to the Development.

NOW THIS AGREEMENT WITNESSES as follows:

2. INTERPRETATION

In this Agreement:

2.1 Words importing the one gender include reference to all the genders.

2.2 Words importing the singular include the plural and vice versa.

2.3 Words importing persons include companies and corporations and vice versa.

2.4 Any words following the terms including, include, in particular, for example or any similar expression shall be construed as illustrative and shall not limit the sense of the words, description, definition, phrase or term preceding those.

2.5 Wherever there is more than one person named as a party and where more than one party undertakes an obligation, all their obligations can be enforced against all of them jointly and against each individually.

2.6 Any reference to a clause, schedule, paragraph or plan is to a clause, schedule, paragraph or plan in, to or attached to this Agreement, unless expressly stated otherwise.

2.7 Any reference to a colour or letter is to a colour or letter on the plans attached to this Agreement.

2.8 In the absence of contrary provision, any reference to a statute includes any statutory modification or re-enactment of it and every statutory instrument, direction, specification made or issued under the statute or deriving validity from it.

2.9 A reference to writing or written excludes fax and email.

2.10 An obligation on a party not to do something includes an obligation not to allow that thing to be done.

2.11 References to any party to this Agreement shall include the successors in title to that party and to any person deriving title through or under that party and, in the case of the Council, the successors to their functions as local planning authority.

2.12 The headings are for reference only and shall not affect construction.

3. DEFINITIONS

It is hereby agreed between the Parties set out in this Agreement that the following expressions have the following meanings:

"2015 Order"	the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended);
"2017 Regulations"	the Conservation of Habitats and Species Regulations 2017;
"Act"	the Town and Country Planning Act 1990 (as amended);
"Application"	the application for prior approval consent for development comprising: "Prior notification for the demolition of existing workshop building (Class B1(c)) and construction of new dwellinghouse (Class C3)" ascribed reference number DC/23/0030;
"Application Site"	land at Tanners Farm (currently known as Unit 10), Mayes Lane, Warnham, Horsham, West Sussex RH12 3SG to which the Application relates, which is shown for identification purposes edged red and marked 'Proposed House' on the Application/ Offsetting Site Plan;
"Application Site Measures"	the detailed water reduction measures that are to be implemented on the Application Site as set out in the Water Neutrality Statement;

"Application/ Offsetting Site Plan"	the plan entitled, "SITE PLAN", job: "Tanners Farm, Mayes Lane, Winterfold RH12 3SH", dated 31 Dec 2021, Revision A, showing the location of (1) the Application Site which is edged in red and marked "Proposed House"; and (2) the Off-setting Site which is also edged in red and marked "Existing Bungalow", comprising Schedule 1 of this Agreement;
"Commencement of Development"	the carrying out of a material operation as defined in section 56(4) of the Act in respect of the Development but excluding (for the purposes of this Agreement and for no other purpose) any operation relating to works of investigations in respect of land contamination or remedial action in respect thereof, enabling works, demolition, site clearance works, earthworks, archaeological investigations and digs, exploratory boreholes, operations permitted by the 2015 Order, the erection of hoardings and fencing, temporary diversion of services and signage (including the formation of temporary construction accesses) and "Commence Development" shall be construed accordingly;
"Commencement Date"	the date on which Commencement of the Development occurs;
"Commencement Notice"	the written notice confirming the Commencement Date referred to in clause 7.1.1 and served in accordance with Clause 7.3;
"Development	the development of the Application/ Offsetting Site pursuant to the Planning Permission and the Regulation 77 Consent;
"Monitoring Fee"	the fee [redacted] payable to the Council for monitoring obligations in this Agreement and which is payable before or on the completion of this Agreement;
"Occupation"	occupation of the Development for any purpose for which the Planning Permission and Regulation 77 Consent is granted other than occupation for the purposes of construction or fitting out or occupation for security, marketing or display and "**Occupy**", "**Occupied**" and "**Occupation Date**" shall be construed accordingly;
"Occupation Notice"	the written notice confirming the Occupation Date referred to in Clause 7.1.2 and served in accordance with Clause 7.3;
"Offsetting Site Measures"	the detailed water saving measures that are to be implemented in respect of the extant dwelling on the Offsetting Site to make the Development Water Neutral as set out in the Water Neutrality Statement;
"Offsetting Site	land comprising "Little Tanners", Mayes Lane, Warnham, Horsham, West Sussex RH12 3SG to be subject to the Offsetting Site Measures and which is shown for identification purposes on the Application/ Offsetting Site Plan edged in red and marked "Existing Bungalow";
"Planning Permission"	deemed planning permission granted under Schedule 2, Part 20, Class ZA of the 2015 Order for which prior approval was granted by the Council for the Application subject to conditions including obtaining the Regulation 77 Consent;
"Position Statement"	the statement from Natural England dated 14th September 2021, updated in February and November 2022, which states that water abstraction for water supplies in the SNWSZ is having a negative impact on the wildlife sites in the Arun Valley;
"Regulation 77 Application"	the application made pursuant to Regulation 77 of the 2017 Regulations, for consent to carry out the Development as the requirement for it to be water neutral has been met, ascribed reference number HRA/24/0002;

"Regulation 77 Consent"	the consent of the Council pursuant to the Regulation 77 Application permitted subject *inter alia* to completion of this Agreement;
"Section 73 Consent"	any planning permission granted pursuant to section 73 of the Act which varies and/or removes any condition subject to which the Planning Permission and/or such planning permission pursuant to section 73 of the Act was granted;
"SNWSZ"	the Sussex North Water Supply Zone from where Southern Water supplies drinking water;
"Southern Water"	the statutory undertaker responsible for the supply of water to the Development or any successor organisation which replaces it;
"Water Neutral"	the use of water in the SNWSZ after the Development has taken place is the same or lower than it was before the Development so as to accord with the Position Statement and "Water Neutrality" shall be construed accordingly;
"Water Neutrality Statement"	the statement dated 23rd February 2024 prepared by Neil Jaques of Motion on behalf of the Owner in support of the Regulation 77 Application, setting out the Application Site Measures and the Offsetting Site Measures to be undertaken to demonstrate how the Development will be delivered and remain Water Neutral in perpetuity in accordance with the Position Statement, comprising Schedule 2 of this Agreement;
"Water Stressed Areas Classification"	the Environment Agency's report dated 1st July 2021 setting out the results of the Environment Agency's determination of areas of water stress in England and any subsequent report;
"Working Day"	Monday to Friday inclusive but excluding any day that is a bank holiday, public holiday or statutory holiday in England.

4. ENABLING PROVISIONS

4.1 This Agreement is made pursuant to section 106 of the Act, section 111 of the Local Government Act 1972, section 1 of the Localism Act 2011 and all other enabling powers.

5. CONDITIONS PRECEDENT

5.1 This Agreement shall come into effect upon the date hereof, but the provisions of Schedule 3 and Schedule 4 of this Agreement, with the exception of paragraph 1 of Schedule 3 and its sub-paragraphs regarding payment of the Monitoring Fees, shall only take effect upon the Commencement of Development.

6. COVENANTS

6.1 Subject to clause 5.1:

6.1.1 The Owner covenants with the Council to fully comply with and to perform the obligations contained herein and in Schedule 3 of this Agreement in accordance with the requirements and timescales set out;

6.1.2 The Owner covenants with the Council that the Development and use of the Application Site shall be in strict accordance with this Agreement;

6.1.3 The Offsetting Site Owners covenant with the Council to comply fully with and to perform the obligations contained herein and in Schedule 4 of this Agreement in accordance with the requirements and timescales set out.

6.2 The Council covenants to provide the written confirmation pursuant to paragraph 2.2 of Schedule 3 to the Owner without delay on receipt of the evidence of compliance with the Water Neutrality Statement from the Owner required by paragraph 2.1 of Schedule 3 and to act promptly to notify the Owner about any missing evidence from

the Owner's initial submission so written approval can be obtained at the earliest possible opportunity to enable Occupation.

7. NOTICES

7.1 The Owner covenants with the Council as follows:

7.1.1 to give the Commencement Notice to the Council not less than 14 (fourteen) days before the anticipated Commencement Date; and

7.1.2 to give the Occupation Notice to the Council not less than 14 (fourteen) days before the anticipated Occupation Date.

7.2 The Parties to this Agreement agree that if the Owner fails to give the notice required by clause 7.1.1 and clause 7.1.2 above then the Council shall be entitled in its absolute discretion to determine the Commencement Date and Occupation Date and shall give notice to the Owner of the Council's determination.

7.3 Any notice, certificate or other communication required or permitted to be given under this Agreement shall be given in writing to the relevant party at the relevant address referred to at the start of this Agreement or such other address as may be notified in writing to the other party and must be served personally or by first class registered or first class recorded delivery post and, in the case of the Council, the relevant party shall address any notice to the Head of Legal and Democratic Services of the Council.

7.4 Any notice, certificate or other communication sent by post shall be deemed (in the absence of evidence of receipt) to have been delivered 2 (two) Working Days after despatch and in proving the fact of despatch it shall be sufficient to show that the envelope was properly addressed and posted.

7.5 Any notice, certificate or other communication delivered personally shall be deemed to have been delivered at the time it is received provided it is received between 0900 and 1700 on a Working Day but otherwise it shall be deemed to have been received on the next Working Day.

8. COSTS

8.1 The Owner has undertaken to pay on or before the date hereof the Council's reasonable legal costs incurred in preparing and entering into this Agreement and the Monitoring Fee.

9. MORTGAGEE'S LIABILITY

9.1 Any future mortgagee shall not be liable for any breach of the obligations in this Agreement unless committed or continuing at a time when it is in possession of all or any part of the Application Site and/ or the Offsetting Site in which case it will be bound by the obligations in this Agreement as if it were a person deriving title from the Owner or the Offsetting Site Owners as the case may be.

10. GENERAL

The Parties undertake that:

10.1 this Agreement constitutes a planning obligation for the purposes of section 106 of the Act, section 111 of the Local Government Act 1972, section 1 of the Localism Act 2011 and any other enabling powers.

10.2 this Agreement constitutes a deed.

10.3 this Agreement is enforceable by the Council in accordance with section 106 of the Act.

10.4 nothing in this Agreement confers or is intended to confer a benefit on a third party under the Contracts (Rights of Third Parties) Act 1999.

10.5 It is hereby agreed by the Owner and the Offsetting Site Owners that failure by the Council at any time to enforce the provisions of this Agreement or to require

performance strictly or otherwise by the Owner and the Offsetting Site Owners of any of the conditions, covenants, agreements or obligations of this Agreement or any failure or delay by the Council to exercise any act, right or remedy shall not be construed as a creating an estoppel in connection with any such condition, covenant, agreement or obligation and shall not affect the validity of this Agreement or any part thereof or the right of the Council to enforce any provision and any variation of this Agreement shall not vitiate the remainder of the Agreement which shall remain in full force and effect subject to such amendment or amendments.

10.6 The Owner and the Offsetting Site Owners hereby undertake that:

10.6.1 this Agreement supersedes and replaces all previous negotiations whether oral or written;

10.6.2 the Owner has not relied on any express or implied statement warranty representation or undertaking given by or on behalf of the Council; and

10.6.3 nothing herein contained excludes the liability of any party in relation to fraud.

10.7 The Owner and the Offsetting Site Owners acknowledge that this Agreement will be registered as a local land charge.

10.8 The Owner hereby gives consent for the Application/ Offsetting Site Plan to be reproduced by the Council.

10.9 If any provision in this Agreement shall be held to be invalid, illegal or unenforceable the validity, legality and enforceability of the remaining provisions hereof shall not in any way be deemed thereby to be affected or impaired.

10.10 This Agreement shall be governed by and interpreted in accordance with laws of England and the Parties submit to the exclusive jurisdiction of the courts of England.

10.11 The obligations in this Agreement (with the exception of clause 8 (Costs)) shall cease to have effect (insofar only as it has not already been complied with) if, before the Commencement of Development, the Planning Permission or the Regulation 77 Consent:

10.11.1 expires;

10.11.2 is varied or revoked other than at the request of the Owner; or

10.11.3 is quashed following a successful legal challenge.

but will remain in full force and effect so far as any subsisting Section 73 Consent is concerned.

10.12 The Owner (or any person deriving title to the Application Site from the Owner) shall not be liable for any breach of the restrictions and obligations set out in this Agreement where such breach arises after the Owner or such person deriving title has parted with their interest in the Application Site or part thereof to which such breach relates save in respect of liability for antecedent breach of this Agreement.

10.13 The Offsetting Site Owners (or any person deriving title to the Offsetting Site from the Offsetting Site Owners) shall not be liable for any breach of the restrictions and obligations set out in this Agreement where such breach arises after the Offsetting Site Owners have parted with their interest in the Offsetting Site or such part of the Offsetting Site to which such breach relates save in respect of liability for antecedent breach of this Agreement.

10.14 Section 33 of the Local Government (Miscellaneous Provisions) Act 1982 applies to the covenants in this Agreement.

10.15 References to the Application and/ or the Offsetting Site include any part of it.

10.16 Any covenant by the Owner and/ or the Offsetting Site Owners not to do any act or thing includes a covenant not to permit or allow the doing of that act or thing.

10.17 Nothing in this Agreement shall prohibit or limit the right to develop any part of the Site in accordance with any planning permission (other than the Planning Permission

or any modification variation or amendment thereof) granted after the date of the Planning Permission.

10.18 Subject to the proviso to this clause if any Section 73 Consent is granted after the date of this Agreement:

10.18.1 the obligations in this Agreement shall relate to and bind such Section 73 Consent provided that they do not extend the obligations on the Off-Setting Site Owners;

10.18.2 the definitions of the Application, Development, Planning Permission (other than for the purposes of clause 1) shall be construed to include reference to (respectively) the planning application for the Section 73 Consent, the development permitted by the Section 73 Consent and the Section 73 Consent itself; and

10.18.3 nothing in this clause shall fetter the discretion of the Council in determining any planning application for a Section 73 Consent and the appropriate planning obligations required in connection with the determination of the same;

PROVIDED THAT:

10.18.4 to the extent that any of the obligations in this Agreement have already been discharged at the date that a Section 73 Consent is granted they shall remain discharged for the purposes of the Section 73 Consent; and

10.18.5 the Council reserves the right to insist upon the completion of a separate planning obligation by deed of agreement in connection with any Section 73 Consent if the Council (acting reasonably) considers it desirable to do so.

11. DISPUTE RESOLUTION

11.1 Should a dispute or difference arise between the Owner and/ or the Offsetting Site Owners and the Council concerning anything herein then the provisions of this clause 11 shall apply.

11.2 All differences and disputes which may arise between the Parties concerning this Agreement shall be referred to the determination (as an expert and not as an arbitrator) of an independent leading conveyancing/planning counsel agreed upon by the Parties but in default of such agreement appointed by the President of the Law Society of England and Wales on the application of any of the Parties.

11.3 Any expert appointed pursuant to clause 11.2 shall:

11.3.1 on his appointment serve written notice thereof on the parties in dispute;

11.3.2 consider any written representations by or on behalf of those parties which are received by him within 20 (twenty) Working Days of such service and immediately forward a copy of the written representation of one party to the other party;

11.3.3 allow the parties to the dispute an opportunity of commenting in writing on the other party's representations within 20 (twenty) working days of receipt by the other party thereof;

11.3.4 have an unfettered discretion to determine the reference to him;

11.3.5 serve notice of his determination as soon as he has made it;

11.3.6 give full and clear reasons for his decision; and

11.3.7 be paid his proper fee and expenses in connection with such reference by the parties in dispute in equal shares or in such shares as he may determine and his determination shall be final and binding on the parties in dispute (save in the case of manifest error) PROVIDED THAT if any such expert shall die, become insolvent or of unsound mind or if any of the parties in dispute shall serve on him written notice in their opinion he has unreasonably delayed making his determination he shall be ipso facto discharged and be

entitled only to his reasonable expenses prior to such discharge and another person shall be appointed in his place as such expert.

11.4 The provisions of this clause shall not affect the ability of the Council to apply for and be granted any of the following: declaratory relief, injunction, specific performance, payment of any sum, damages, and any other means of enforcing this Agreement and consequential and interim orders and relief.

12. OWNERSHIP

12.1 The Owner warrants that no person other than the Owner has any legal or equitable interest in the Application Site.

12.2 The Offsetting Site Owners warrant that no person other than the Offsetting Site Owners have any legal or equitable interest in the Offsetting Site.

12.3 The Owner and the Offsetting Site Owners undertake to the Council to give the Council written notice within 10 Working Days of any change in the ownership of any of their respective interests in the Application Site and/ or the Offsetting Site occurring before all the obligations under this Agreement have been discharged such notice to give details of the transferee's full name and registered office (if a company or usual address if not) together with the area of the Application Site and/ or the Offsetting Site purchased by reference to a plan.

13. GENERAL

13.1 Except for the planning obligations contained in this Agreement specifically regulating the use of land or buildings after construction pursuant to the provisions of this Agreement or the Planning Permission and/or Regulation 77 Consent pursuant to the Application or the planning obligations that relate to the Application/ Offsetting Site, no obligations contained in this Agreement shall be binding on any freehold or leasehold owners or occupiers of individual dwellings constructed pursuant to the Planning Permission and/ or Regulation 77 Consent (or their respective mortgagees) or land held by any of the statutory utilities for their operational purposes.

IN WITNESS whereof this Agreement has been duly executed the day and year first hereinbefore mentioned

SIGNED as a **DEED** by
HARVEY BERWICK

(both as Owner and as one of the Offsetting Site Owners

..... [redacted] ..... Signature

In the presence of:

W [redacted] ..... Signature
I GEORGIA RADFORD ..... Print name
T Downs Solicitors LLP ..... Address 1
N 156 High Street ..... Address 2
E Dorking ..... Address 3
S RH4 1BQ ..... Post code
S Department Assistant Occupation

SIGNED as a DEED by
HEATHER KAREN BERWICK

[redacted] ..... Signature

In the presence of:

W ... [redacted] ..... Signature
I ... GEORGIA RADFORD ..... Print name
T ... 156 High Street ..... Address 1
N ... Dorking ..... Address 2
E ... (Downs Solicitors LLP) ..... Address 3
S ... RH4 1BQ ..... Post code
S ... Department Assistant ..... Occupation

SEALED WITH THE COMMON SEAL of
HORSHAM DISTRICT COUNCIL
in the presence of:

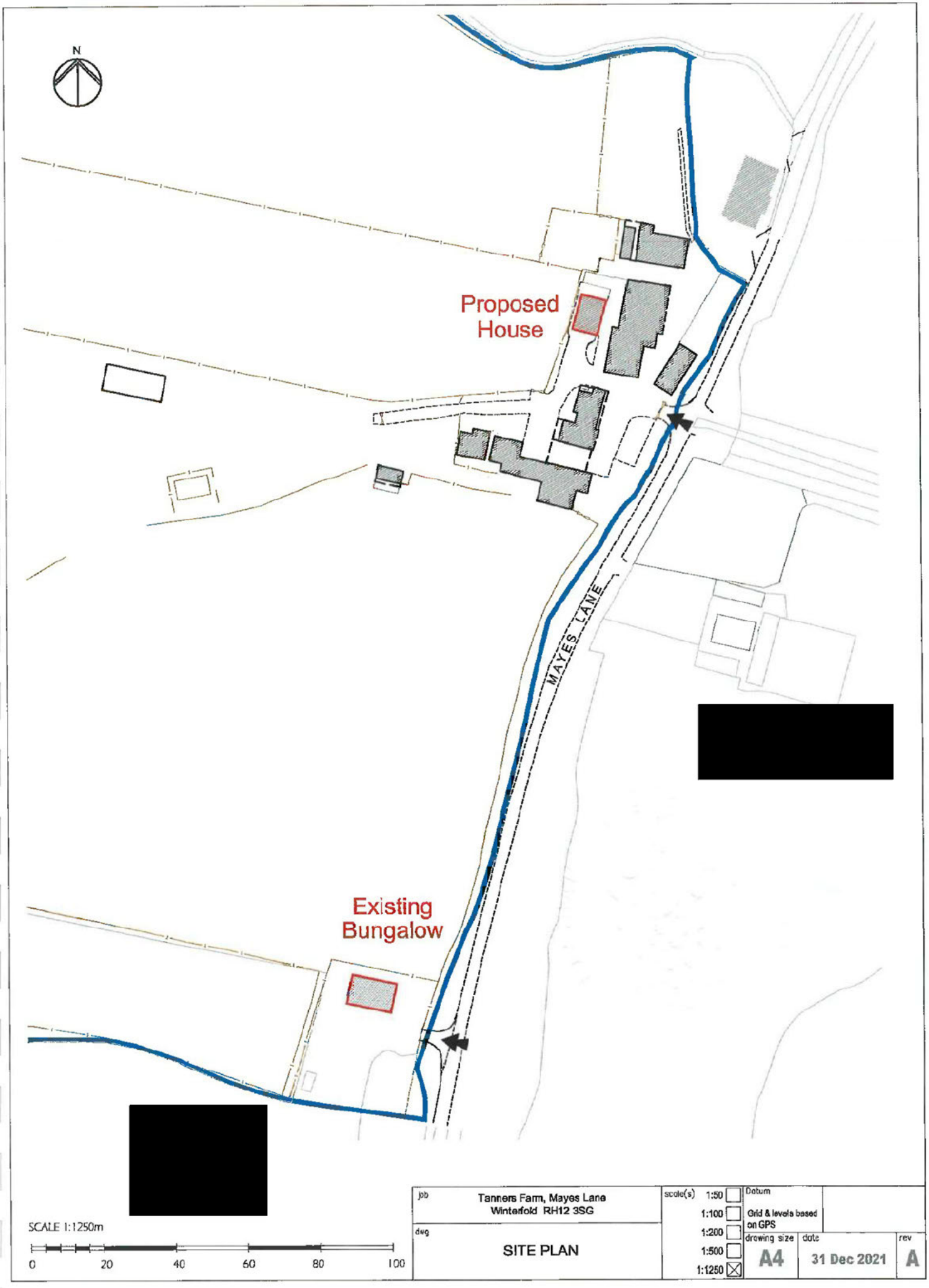
[redacted]

Authorised Officer

17963 x2

Schedule 1

Application/ Offsetting Site Plan



job	Tanners Farm, Mayes Lane Winterfold RH12 3SG	scale(s)	1:50 ☐ 1:100 ☐ 1:200 ☐ 1:500 ☐ 1:1250 ☒	Datum	Grid & levels based on GPS
dwg	SITE PLAN			drawing size	A4
				date	31 Dec 2021
				rev	A

Schedule 2

Water Neutrality Statement

Prepared by Neil Jaques of Motion and dated 23rd February 2024

Technical Note 1: Water Neutrality Statement

Site:	The Workshop, Tanners Farm, Horsham
Prepared by:	Laura Jagiela
Approved by:	Neil Jaques
Date:	23 February 2024

motion
232 High Street
Guildford
Surrey
GU1 3JF

Tel: 01483 531000
http://www.motion-uk.co.uk

1.0 Introduction

1.1 This Water Neutrality Statement (WNS) has been prepared on behalf of Heather Berwick to demonstrate how the proposed development at Tanners Farm will achieve water neutrality.

1.2 Following the issue of Natural England's (NE's) Position Statement on Water Neutrality within the Sussex North Water Supply Zone (SNWSZ), Horsham District Council (HDC) require all new and reserved matters planning applications and prior approvals seeking to satisfy Regulation 77 to demonstrate that the development is water neutral and/or that they do not result in a significant effect. NE's Position Statement can be found in full within **Appendix A**.

1.3 The SNWSZ covers part of the Horsham District, as well as parts of the neighbouring Chichester, Arun and Crawley Districts. A plan showing the SNWSZ area and the location of the farm can be found in **Appendix B**.

1.4 This statement sets out the following:

- Baseline calculations for the existing development;
- Additional demand as a result of the proposed development;
- Water reduction measures, such as water efficient fixtures and fittings and rainwater harvesting; and
- Measures to offset any remaining deficit following the above.

2.0 Background

2.1 The proposed site is located along Mayes Lane in Horsham (RH12 3SG).

2.2 The existing site consist of a disused workshop building.

2.3 The proposal for the site is to replace the workshop with a two-bedroom house. A copy of the proposed plans can be found in **Appendix C**.

3.0 Baseline Water Usage

3.1 The existing site comprises of a disused workshop building and does not have any existing water use. Therefore, no baseline data will be taken forward in the water neutrality calculations.

4.0 Additional Demand

4.1 The proposal is for the construction of a two-bedroom house.

4.2 Census data has been used to estimate the average number of people in the home, which is 1.88 for a two-bedroom home.

4.3 A water calculation in accordance with Buildings Regulations Part G has been carried out and confirms that the proposed two-bedroom house will achieve a water consumption of 84.45 litres per person per day, which includes an allowance of 5 litres per person per day for external water usage. A copy of the Part G calculation can be found in **Appendix D** and is summarised in Table 4.1, below:

	Total Water Usage (l/p/day)	Mains Water Usage (l/p/day)	RWH System Usage (l/p/day)
WC (full flush)	5.84		5.84
WC (part flush)	5.92		5.92
Taps (Excluding Kitchen)	5.85	5.85	
Shower	26.22	26.22	
Bath	14.30	14.30	
Kitchen Taps	12.12	12.12	
Washing Machine	13.50		13.50
Dishwasher	3.56	3.56	
Total	87.31	62.05	25.26
Normalisation Factor	0.91	0.91	0.91
Total	79.45	56.46	22.99
External Water Use	5		5
Total	84.45	56.46	27.99

Table 4.1 – Water Usage

4.4 A copy of the proposed fixtures and fittings to achieve the above water consumption can be found in **Appendix E.**

4.5 Using the Part G water consumption figure of 84.45 litres per person per day and a population size of 1.88 it is estimated that the water usage for the proposed development will be 158.76 litres per day.

4.6 Therefore, following the construction of the proposed house there will be an increase in water demand of 158.76 litres per day, which is greater than the baseline water usage of zero. At this stage, the proposed development cannot be considered to be water neutral.

4.7 To achieve water neutrality, it is necessary to reduce the mains water consumption further through rainwater harvesting and recycling, which is discussed further in section 5 below.

5.0 Water Reduction Measures

5.1 To help mitigate the increase in water demand it is proposed to incorporate rainwater harvesting into the proposed development.

5.2 The water collected by the rainwater harvesting system will be utilised for flushing toilets, in the washing machine, and all other uses will be mains water fed.

5.3 Noting these water uses, Table 4.1 above confirms that 27.99 litres per person per day can be supplied by the rainwater harvesting system, which equates to 52.62 litres per day, based on a population of 1.88 people.

5.4 The size of the rainwater harvesting tanks for the proposed dwelling has been calculated as per the guidance set out in BS EN 16941-1:2018 and will be large enough to store 9.6% of the Annual Water Demand. This will ensure that the tank will provide at least 35 days of storage for periods of drought, as required by HDC.

5.5 The proposed building will have a metal standing seam roof and therefore a yield coefficient of 0.9 has been used in the calculations.

5.6 The calculations confirm that the yield is sufficient enough to meet demand. Calculations used the annual rainfall data from the nearest MET Office climate station to the proposed site, which is Charlwood. The calculations are summarised in Table 5.1 below and can be found in full in **Appendix F.**

Unit	Number of Persons	Roof Area	9.6% Annual Rainwater Yield (litres)	9.6% Annual Water Demand (litres)	Tank Size (litres)
2-bed proposed	1.88	76	4,927	1,844	2,600

Table 5.1 – Rainwater Harvesting Sizing Calculation

5.7 A typical layout and specification for a rainwater harvesting system is shown in Appendix G. The illustration shows how the rainwater will be collected, filtered and then returned to the property for re-use.

5.8 The dimensions of the proposed tank can be found in Appendix H.

5.9 A Management and Maintenance Plan has been prepared for the rainwater harvesting systems and can be found in Appendix I.

5.10 Once rainwater harvesting has been incorporated into the proposed dwelling the mains water usage will be reduced to 56.46 litres per person per day, which equates to 106.14 litres per day, based on an occupancy of 1.88 people. A mains water demand of 106.14 litres per day is more than the baseline water usage and therefore further offsetting is required.

6.0 Offsetting Measures

6.1 To ensure the development can demonstrate water neutrality in accordance with the NE Position Statement 106.14 litres per day will need to be offset.

6.2 The client is proposing to offset the development against a two-bedroom bungalow, which is within their ownership.

6.3 A flow survey was undertaken on 6th February 2024 to determine the existing water usage of the bungalow. A copy of the flow survey can be found in Appendix J.

6.4 A Part G calculation following the flow survey gives a water consumption of 162.21 litres per person per day, which equates to 304.96 litres per day with a census population of 1.88. A copy of the Part G calculation can be found in Appendix K.

6.5 The bungalow will be remaining and it is proposed to retrofit water efficient fixtures and fittings to it.

6.6 A water calculation in accordance with Building Regulation Part G has been carried out and this confirms that the water use of the two-bedroom bungalow can be reduced to 98.23 litres per person per day, which includes an allowance of 5 litres per person per day for external water usage. A copy of the Part G calculation can be found in Appendix L and is summarised in Table 6.1, below:

	Total Water Usage (l/p/day)
WC (full flush)	5.84
WC (part flush)	5.92
Taps (Excluding Kitchen)	5.85
Shower	26.22
Bath	33.00
Kitchen Taps	12.12
Washing Machine	13.50
Total	102.45
Normalisation Factor	0.91
Total	93.23
External Water Use	5
Total	98.23

Table 6.1 – Offsetting Water Usage

6.7 A copy of the proposed fixtures and fittings to achieve the above water consumption can be found in **Appendix E**.

6.8 Using the Part G water consumption figure of 98.23 litres per person per day and the population size of 1.88 for the two-bedroom bungalow, it is estimated that the total water usage will reduce to 184.66 litres per day.

6.9 The two-bedroom bungalow's baseline water usage was 304.96 litres per day, following the incorporation of the above measures the water usage will reduce to 184.66 litres per day. This will provide 120.29 litres per day spare capacity for the proposed dwelling. Since 106.14 litres per day is needed for the proposed dwelling, there will be 14.15 litres per day as a buffer should the water usage increase.

7.0 Summary and Conclusions

7.1 This technical Note sets out the water usage strategy for the proposed development at The Workshop, Tanners Farm, Horsham.

7.2 The proposal is to incorporate water efficient fixtures and fittings and rainwater harvesting to the proposed two-bedroom house.

7.3 Following the incorporation of the measures identified above the increase in water demand will be offset against the clients two-bedroom bungalow that will be retrofitted with water efficient fixtures and fittings.

7.4 The strategy will minimise the impact of the new development on the Sussex North Water Supply Zone. The Water Usage Strategy confirms that the proposal will be water neutral once complete and therefore satisfying Natural England's requirements.

Appendix A

Natural England's Position Statement

Natural England's Position Statement for Applications within the Sussex North Water Supply Zone

September 2021 – Interim Approach

Please take the following as Natural England's substantive advice for all applications which fall within Sussex North's Water Supply Zone.

Sussex North Water Supply Zone

Arun Valley SPA, SAC and Ramsar Site- Sussex North Water Supply Zone

The Sussex North Water Supply Zone includes supplies from a groundwater abstraction which cannot, with certainty, conclude no adverse effect on the integrity of;

- Arun Valley Special Area Conservation (SAC)
- Arun Valley Special Protection Area (SPA)
- Arun Valley Ramsar Site.

As it cannot be concluded that the existing abstraction within Sussex North Water Supply Zone is not having an impact on the Arun Valley site, we advise that developments within this zone must not add to this impact. This is required by recent caselaw, Case C-323/17 People over wind and Sweetman. Ruling of CJEU (often referred to as sweetman II) and Coöperatie Mobilisation for the Environment and Vereniging Leefmilieu Case C-293/17 (often referred to as the Dutch Nitrogen cases).

Between them these cases require Plans and Projects affecting sites where an existing adverse effect is known (i.e. the site is failing its conservation objectives), to demonstrate certainty that they will not contribute further to the existing adverse effect or go through to the latter stages of the Regulations (no alternatives IROPI etc).

Developments within Sussex North must therefore must not add to this impact and one way of achieving this is to demonstrate water neutrality.

In addition, the Gatwick Sub regional Water Cycle Study concluded that water neutrality is required for Sussex North to enable sufficient water to be available to the region.

The definition of water neutrality is the use of water in the supply area before the development is the same or lower after the development is in place.

Strategic approach

Natural England has advised that this matter should be resolved in partnership through Local Plans across the affected authorities, where policy and assessment can be agreed and secured to ensure water use is offset for all new developments within Sussex North. To achieve this Natural England is working in partnership with all the relevant authorities to secure water neutrality collectively through a water neutrality strategy.

Whilst the strategy is evolving, Natural England advises that decisions on planning applications should await its completion. However, if there are applications which a planning authority deems critical to proceed in the absence of the strategy, then Natural England advises that any application needs to demonstrate water neutrality. We have provided the following agreed interim approach for demonstrating water neutrality;

Minimising water use of new builds.

- Complete a water budget (based on occupancy)
- All new builds to demonstrate that they can achieve strict water targets (e.g., 85L/pp/day*)

  This can be achieved by measures such as:

- Grey water recycling (advantage of being reliable in hot dry weather);
- Rainwater harvesting;
- Water efficient fixings (such as shower aerators) to demonstrably reduce demand-this would need to be suitably certain.

In addition, water offsetting is required

- One way to achieve this is retrofitting of council owned properties/commercial buildings-located within Sussex North. Examples include:

- Grey water recycling- (for example there are clear opportunities for commercial properties).
- Rainwater harvesting of commercial settings;
- Installation of water reduction fittings in Council-owned buildings.

These measures need to be implemented until such time as a more sustainable water supply has been secured.

It will also need to be ensured that measures are not already proposed (for example in Southern Water's Management Plan) to avoid double-counting.

Any mitigation must be suitably certain in order to comply with the Habitats Regulations and Caselaw.

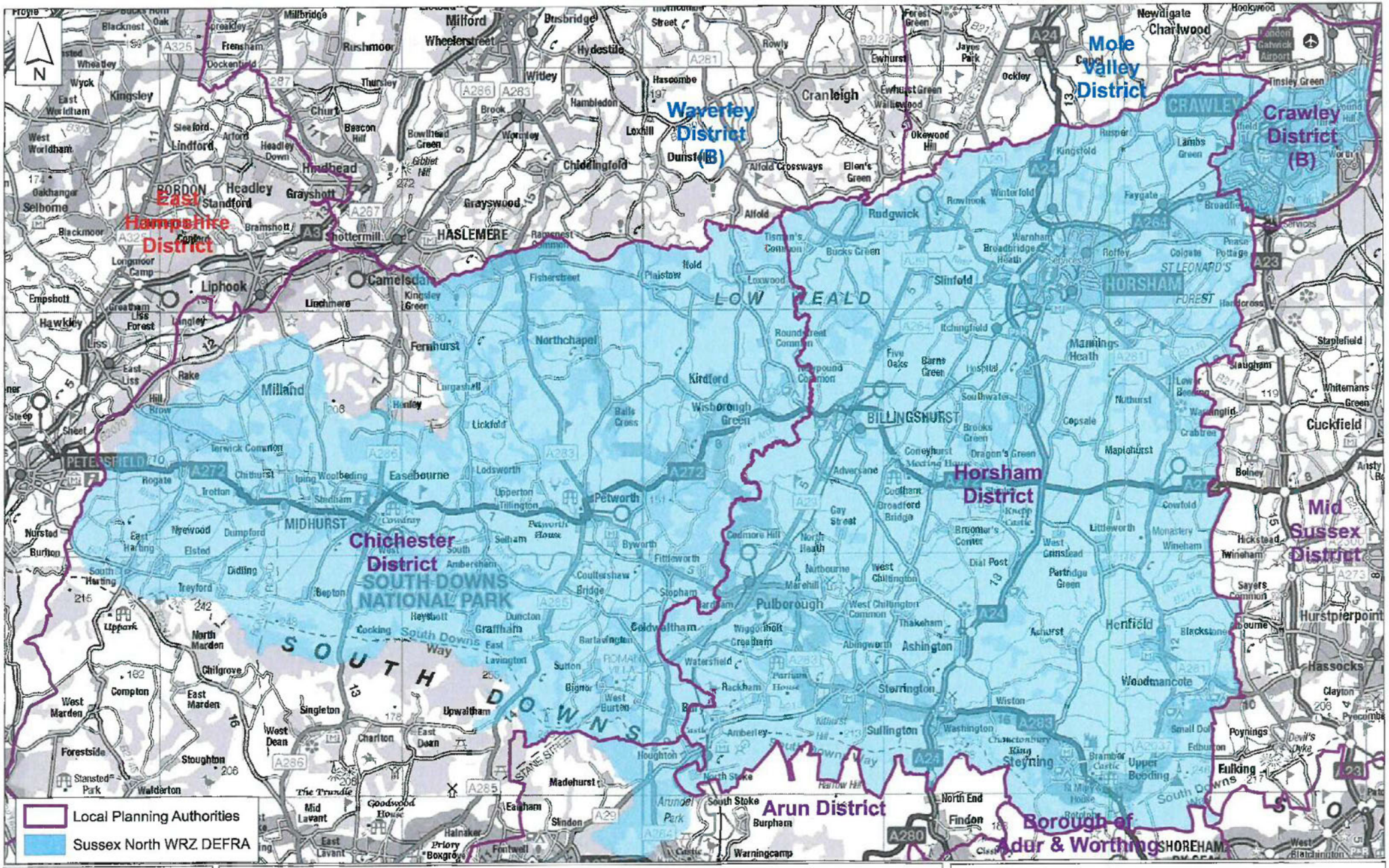
If the application cannot demonstrate, through an appropriate assessment, the required water neutrality, we advise that it is either revised to achieve this in line with the above or awaits completion of the strategic approach.

The securing of water neutrality is a matter which needs to be resolved at a strategic level and Natural England is working with the relevant authorities and the water company to achieve this. In light of this, Natural England will not be engaging with individual planning applications whilst the strategy is evolving.

***This this is the reasonably achievable figure with the above measures based on the early data from the strategic solution and may be subject to change as the strategic solution evolves.**

Appendix B

Sussex North Water Supply Zone Map



Horsham District Council

Parkside, Chart Way, Horsham
West Sussex RH12 1RL.
Barbara Childs : Director of Place

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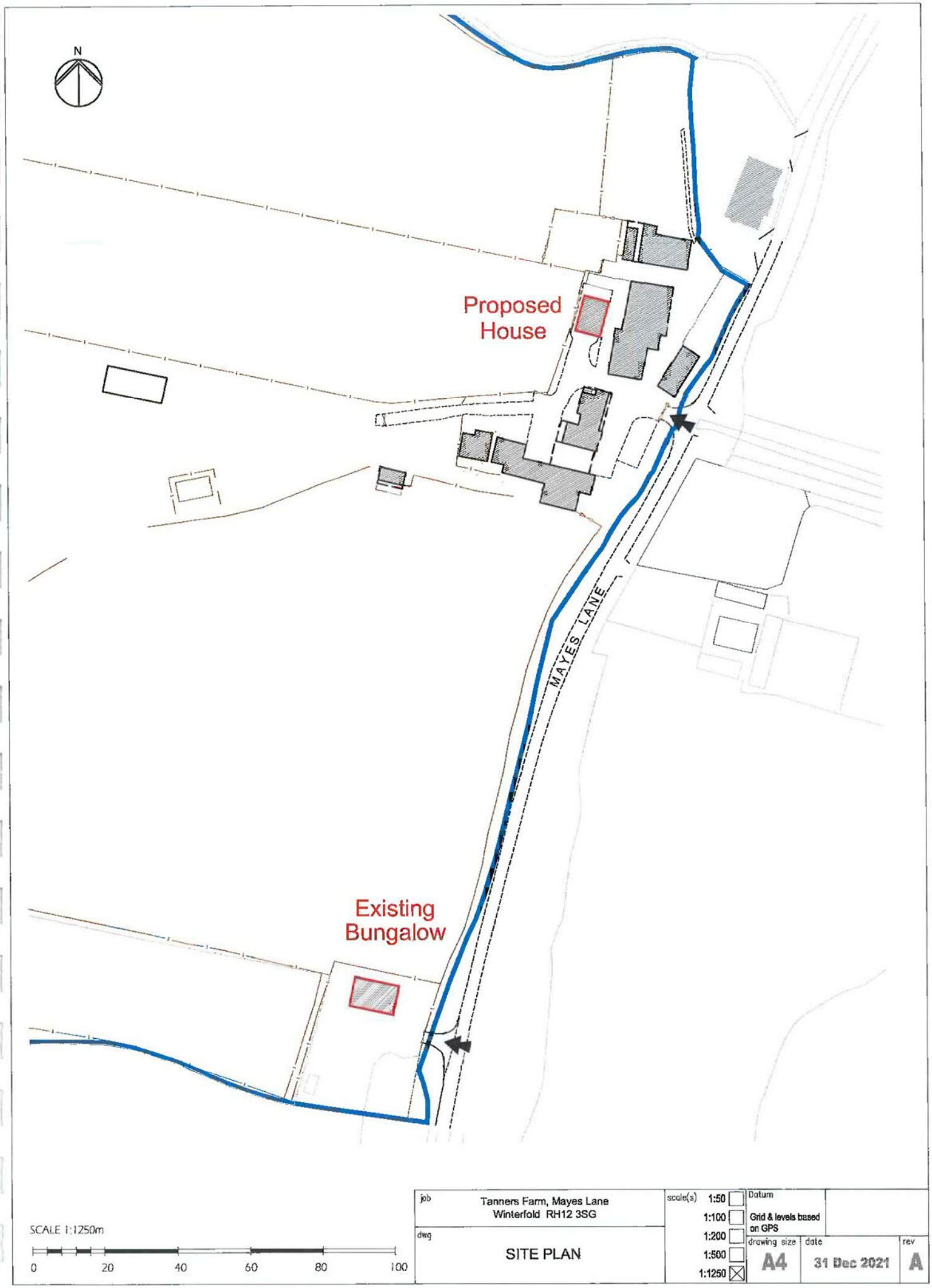
Sussex North Water Resource Zone

Chichester Horsham Crawley

Reference No :		Date : 23 November 2021	Scale : 1:3,000 at A2
Drawing No:	Drawn :	Checked :	Revisions :

Appendix C

Proposed Site Plans



SCALE 1:1250m

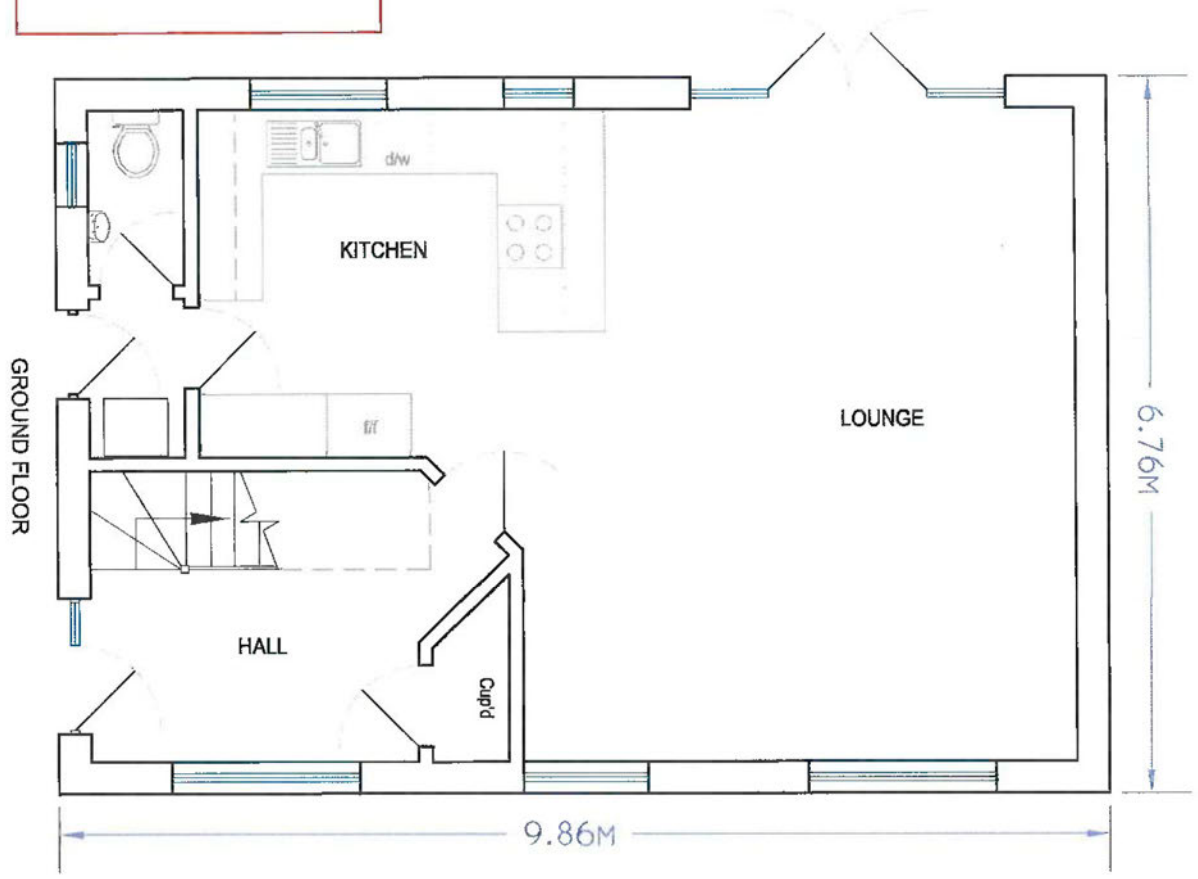
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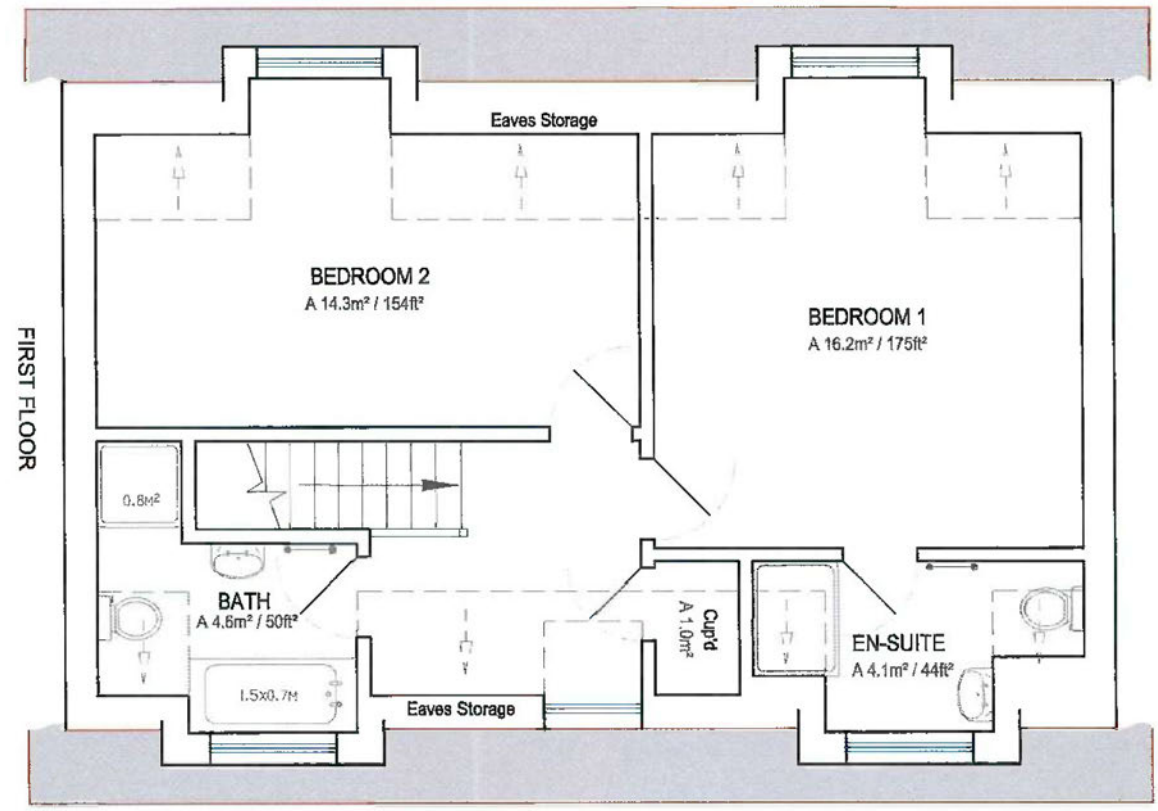
job	Tanners Farm, Mayes Lane Winterfold RH12 3SG	scale(s)	1:50 ☐ 1:100 ☐ 1:200 ☐ 1:500 ☐ 1:1250 ☒	Datum	Grid & levels based on GPS
dwg	SITE PLAN			drawing size	A4
				date	31 Dec 2021
				rev	A

Proposed 2-bed house

SCALE 1:50\measurements in metres

0 1 2 3 4 5





N

job	Tannens Farm, Meyes Lane Winterfold RH12 3SG
dwg	UNIT 10 - FLOOR PLANS AS PROPOSED
scale(@A3)	1:50
job no.	-
drawing size	A3
date	31 Dec 2022
dwg no.	
rev	A

motion

Appendix D

Part G Calculation: Proposed

Part G - Proposed - Water Usage

Fixture	Capacity/Flow Rate	Use Factor	Fixed Use	litres/person/day
WC (Single Flush)		4.42		0.00
WC (Dual Flush)	4	1.46		5.84
WC (Dual Flush) Part	2	2.96		5.92
Taps (excluding kitchen)	2.7	1.58	1.58	5.85
Bath (where shower present)	130	0.11		14.30
Shower (where bath present)	6	4.37		26.22
Bath Only		0.5		0.00
Shower Only		5.6		0.00
Kitchen Sink	4	0.44	10.36	12.12
Washing Machine	6.43	2.1		13.50
Dishwasher	0.99	3.6		3.56
	Total calculated use (litres/person/day)			87.31
Normalisation Factor				0.91
Total Water Consumption (CSH) (litres/person/day)				79.45
External Water Use				5.00
Total Water Consumption (Part G) (litres/person/day)				84.45

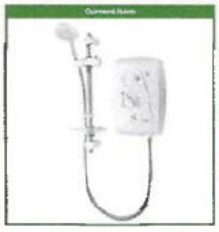
Rainwater Harvesting	27.99	litres/person/day
Mains Water	56.46	litres/person/day
Total	84.45	litres/person/day

	Population	Mains Water Usage	Rainwater Usage	Total Water Usage
Proposed 2-bedroom House	1.88	106.14	52.62	158.76
Totals	1.88	**106.14**	**52.62**	**158.76**

Appendix E

Fixture and Fittings Specifications

Fixtures and Fittings - Part G Specifications

Item	Capacity/Flow rate	Overview
Toilet (Dual Flush)	4/2 litres	The Gap  
Basin Tap	2.7 litres/minute	Joseph Miles 
Bath	130 litres	Ideal Standard 
Shower	6 litres/minute	Triton 

Kitchen Sink	4 litres/minute	Tap with flow regulator - Affinity by Moores



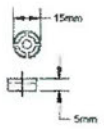
Utility

Chrome utility lever sink mixer tap

Tap Height: 380mm Order code: 805 56

Flow Regulator:





- Tap tail type flow limiters are suitable for most Britan basin, pillar taps, basin and sink mixers.
- Operating pressure range - Min. 1.0 bar Max. 5.0 bar.
- All flow limiters accurate +/- 10%.
- Flow limiting flow straighteners aerates the water for a softer non-splashing flow.
- Flow limiting flow straighteners can be easily retro fitted in tap spout (dependent on tap/mixer model).

Colour	Flow Rate limited to:	Order Code
Pink	1 litre per minute	806 37
Olive	2 litres per minute	806 38
Brown	3 litres per minute	806 39
Grey	4 litres per minute	806 40
Yellow	5 litres per minute	806 41
Black	6 litres per minute	806 42

Appendix F

Rainwater Harvesting Calculations

Rainwater Harvesting System (BS EN 16941-1:2018 - Intermediate Approach)

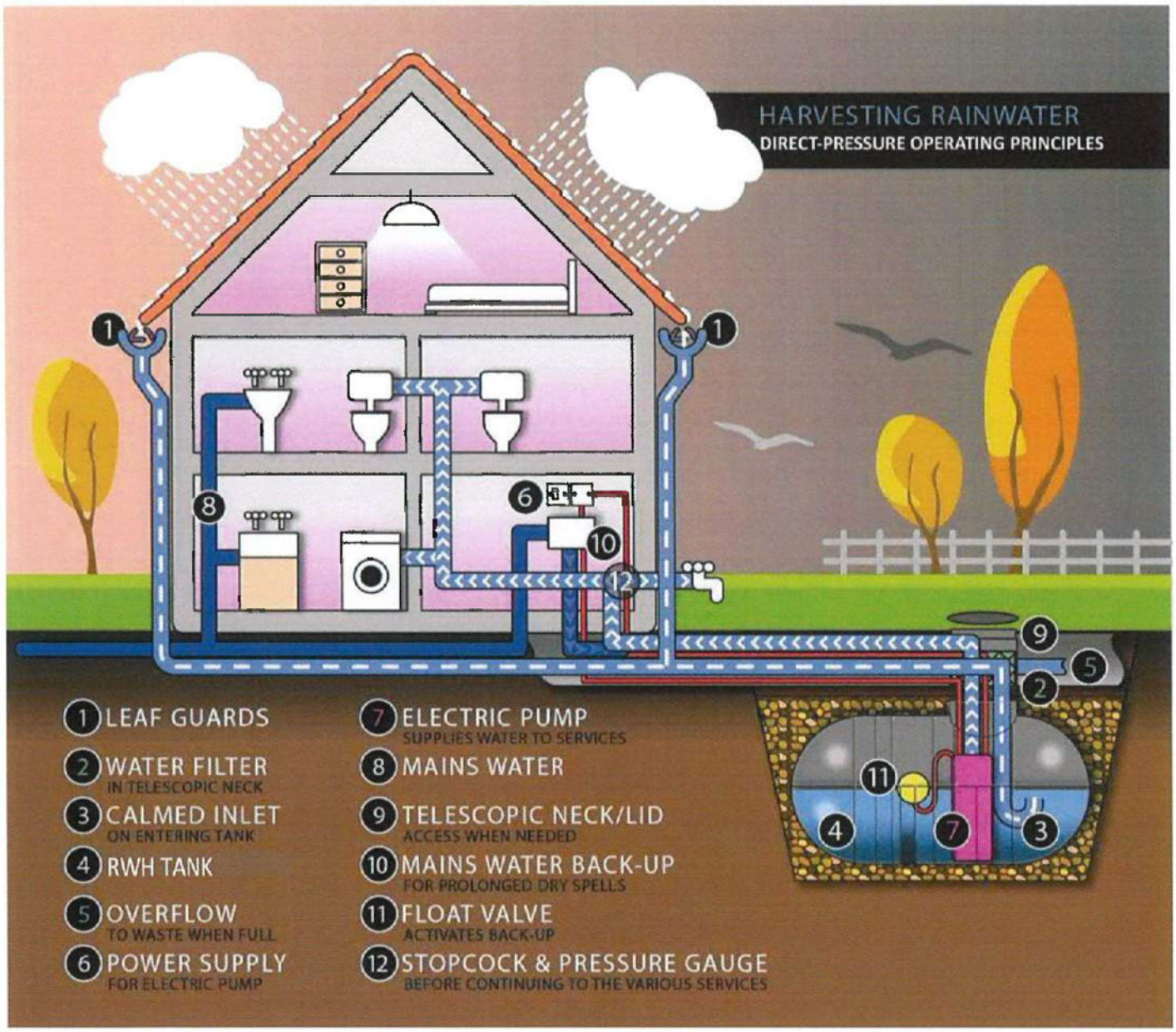
AAR	833.69	Average Annual Rainfall
e	0.9	Yield Coefficient
h	0.9	Hydraulic Filter Efficiency
P_d	27.99	Daily Requirement per Person

Unit	Type	No. Beds	No. Units	Census	Population	Roof Area	9.6% Annual Rainwater Yield (litres)	9.6% Annual Water Demand (litres)	Tank Size (litres)
2-bed	House	2	1	1.88	1.88	76	4,927	1,844	2,600
		Totals	1		1.88	66.65	4,926.91	1,843.85	

motion

Appendix G

Rainwater Harvesting System Specifications


HARVESTING RAINWATER
DIRECT-PRESSURE OPERATING PRINCIPLES
1 LEAF GUARDS
2 WATER FILTER
IN TELESCOPIC NECK
3 CALMED INLET
ON ENTERING TANK
4 RWH TANK
5 OVERFLOW
TO WASTE WHEN FULL
6 POWER SUPPLY
FOR ELECTRIC PUMP
7 ELECTRIC PUMP
SUPPLIES WATER TO SERVICES
8 MAINS WATER
9 TELESCOPIC NECK/LID
ACCESS WHEN NEEDED
10 MAINS WATER BACK-UP
FOR PROLONGED DRY SPELLS
11 FLOAT VALVE
ACTIVATES BACK-UP
12 STOPCOCK & PRESSURE GAUGE
BEFORE CONTINUING TO THE VARIOUS SERVICES

SDS

Water Infrastructure Systems

DIRECT PRESSURE SYSTEM HOME & GARDEN





Inside the Household

Top Up Controller

Automatic mains water top-up Controller kit for rainwater tanks with pump isolation and alarm. The system detects when the tank contents level is running low and initiates a mains top up procedure to ensure the tank never runs out of water supply.

SDS Ltd, Clearwater House, Castlemills, Biddisham, Somerset, BS26 2RE
+44 (0)1934 751303
info@sdslimited.com

SDS

Water Infrastructure Systems

SYSTEM:

A Direct Pressure System is the most popular, cost effective and risk-free option for rainwater harvesting. It can be used for both garden and household applications, for example, it can be used in buildings with a small block of toilets, and for garden irrigation and machine washdowns. The system sends pressurised water straight from the external tank directly to the application. If the water level in the tank gets too low, the top up controller will activate a mains top up so the tank doesn't empty.

COMPONENTS

P Series pumps are stainless steel pumps with plastic coverings and are suitable for domestic water systems, rainwater harvesting, tanks, surface irrigation and tank transfer.

The rodent guard protects the internal water from rodents and large debris which could contaminate the water entering via the overflow.

The PF filter is designed with a level drop, this along with its very smooth surface structure allows excess dirt to be rinsed straight through to the overflow. The filter cartridge mesh is stainless steel within plastic housing and is self-cleaning, though regular inspection is recommended.

The calmed inlet removes the kinetic energy from the water as it enters the tank. This means that as the water enters it doesn't stir up the contents of the tank.

The turret set provides the connection between the pump and the pipework leading to the various external applications. They are made from a flexible plastic so can easily deal with the pressurised water coming from the pump.

The pump lifting chain aids in servicing the pump as it allows the pump to be easily pulled up towards the top of the tank.

A floating intake ensures that no water from either the bottom or the surface of the tank is taken in. Meaning only clean water passes through the system and is pumped into the household.

ADDITIONAL SPECIFICATIONS

- Service duct
- Delivery hose (Options available)
- Top up controller
- Tanks sold separately
- Extra overflow on tanks 5600 – 10000

POPULAR USE:

- Garden irrigation
- Cleaning the car
- Washing windows
- Power washing drive/patio
- Outside tap and hosepipe
- Flushing toilets
- Drinking water (if tank is potable)
- Washing machine





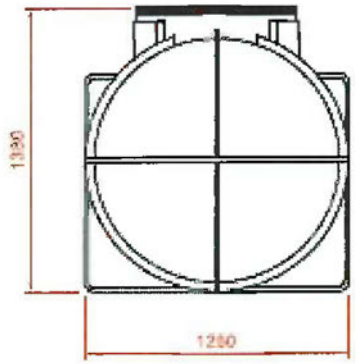
SDS Ltd, Clearwater House, Castlemills, Biddisham, Somerset, BS26 2RE
+44 (0)1934 751303
info@sdslimited.com

Appendix H

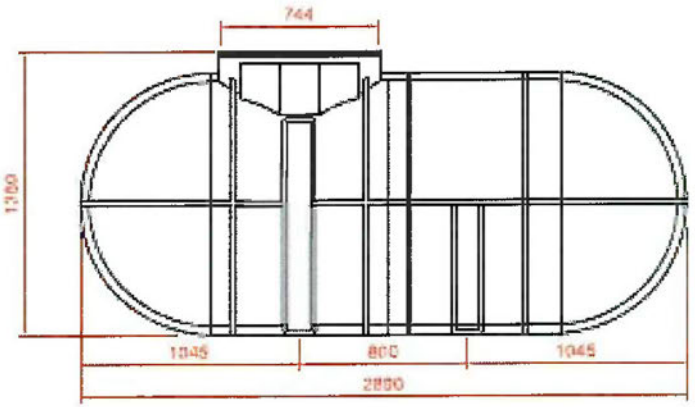
Rainwater Harvesting Tank Dimensions

SDS 2,600 Litre Rainwater Harvesting Tank

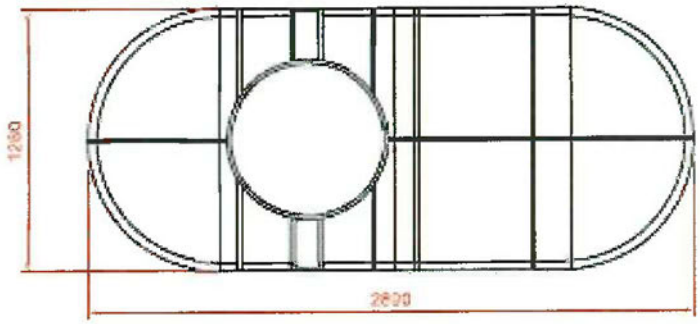




END ELEVATION



SIDE ELEVATION



PLAN

Client	SDS	Details
Project Name	2,600 Litre Tank	
Type	Standard Detail	
Date	-	
Drawing no.	-	
Revision	A	

Notes:

This Drawing is to be read in conjunction with all relevant Architect, Engineers and Specialists drawings and specifications.

Do not scale from the drawing in either paper or digital form. Use written dimensions only.

SDS
Water Infrastructure Systems

Appendix I

Rainwater Harvesting Management and Maintenance Plan

The Workshop
Tanners Farm, Horsham

Rainwater Harvesting Management and Maintenance Plan

For

Heather Berwick

motion

Document Control Sheet

The Workshop

Tanners Farm, Horsham

Heather Berwick

This document has been issued and amended as follows:

Date	Issue	Prepared by	Approved by
22nd Feb 2024	FINAL	Laura Jagiela	Neil Jaques

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Contents

1.0 Introduction 1
2.0 Treatment 2
3.0 Continuity of Supply 3
4.0 Maintenance Categories 4
5.0 The Rainwater Harvesting System 5
6.0 General Maintenance Principles 6
7.0 Inspection and Maintenance Frequency of Components 7

1.0 Introduction

1.1 The report sets out the principles for the long-term management and maintenance of the rainwater harvesting systems at the proposed development.

1.2 The purpose of this report is to ensure that the client has a robust inspection and maintenance plan for the lifetime of the development. This will ensure the optimum operation of the rainwater harvesting systems and that they will be continually maintained. This will ensure that the proposed development will remain water neutral.

1.3 All those responsible for maintenance should follow relevant health and safety legislation for all activities listed within this report (including lone working, if relevant). Method statements and risk assessments should always be undertaken and made available, if requested.

1.4 This report has been produced by Motion to describe the typical management and maintenance tasks that are known at the design stage (such as maintenance frequencies and typical tasks). These have been drawn from industry guidance such as BS EN 16941-1:2018, The SuDS Manual (CIRIA 753) and the manufacturer's own guidance.

1.5 Maintenance is considered as a construction activity under the CDM Regulations 2015. Under the CDM Regulations, it is a requirement that a competent person be appointed to carry out a required role. CDM defines a competent person as an individual with sufficient knowledge of the specific tasks to be undertaken, as well as sufficient experience and ability to carry out their duties in relation to the task in a way that secures health and safety on site.

1.6 In recognition of the requirements of the CDM Regulations 2015, this rainwater harvesting management and maintenance plan expects that the maintenance work will be carried out by a competent person who must have prior knowledge of the rainwater harvesting systems onsite.

2.0 Treatment

2.1 The rainwater harvesting system shall incorporate suitable treatment in accordance with BS EN 16941-1:2018, to ensure that the water quality is suitable for its intended end use.

2.2 The treatment will cover the following:

- Removal of coarse particles, upstream of the storage;
- Retention of fine particles by sedimentation and flotation in the storage tank; and
- Filtration following the storage device, depending on the intended use.

2.3 Preliminary treatment will be provided in the form of filters and separators prior to to the storage tank. This will include leaf guards on gutters and a water filter. A first flush diverter will be included to divert particles contained in rainwater away from the tank and to a suitable drain. These measures will prevent coarse solids and organic matter from entering the storage tank.

2.4 Any fine particles will then be separated either by sedimentation by settling out to the bottom of the tank, or flotation to the water surface.

2.5 A calmed inlet will be incorporated in the tank to prevent turbation of the sediment at the bottom of the tank by the inflow of water. Removal of the sediment will be carried out in accordance with Table 5.1 below.

2.6 Removal of floating particles will occur when the tank overflows, or when it is cleaned out in accordance with Table 5.1 below.

2.7 Water will be extracted from the tank via a floating pump, which will extract water from level that is above any sediment collected at the bottom of the tank and below any floating particles. This will help maintain the quality of harvested rainwater that is to be used in the property.

2.8 Where the water is being used for laundry, it is understood that the Council require an additional level of treatment. Therefore, it is proposed that a UV filter will be incorporated in advance of the washing machine and this will kill any microorganisms, prior to it being used in the washing machine.

2.9 A schematic showing the layout of the equipment used in a rainwater harvesting system is shown in Figure B.2 of BS EN 16941-1:2018.

3.0 Continuity of Supply

3.1 To ensure that sufficient water is available for re-use, the storage tank will be sized so that it can provide 35 days of storage, which will provide sufficient supply during periods of drought.

3.2 Where drought periods extend beyond 35 days, the rainwater harvesting system will include an automatic mains backup. This will ensure that water is available at all times, even during extended periods of drought.

4.0 Maintenance Categories

4.1 There are three categories of maintenance activities referred to in this report. These are:

Inspection and Monitoring

- Inspection and monitoring tasks should be carried out frequently, nominally once a month, and should include a visual inspection of all components including all inlets and outlets.

Regular Maintenance (Monthly)

- Regular maintenance consists of basic tasks done on a frequent and predictable schedule.

Seasonal Maintenance (Quarterly)

- Seasonal maintenance comprises tasks that are likely to be required periodically, but on a much less frequent and predictable basis than the routine tasks.

Remedial Maintenance

- Remedial maintenance comprises of intermittent tasks that may be required to rectify faults associated with the system that have been identified through visual inspections. The likelihood of faults can be minimised by correct installation, regular inspection and timely maintenance.

5.0 The Rainwater Harvesting System

5.1 The proposed rainwater harvesting system will receive rainwater passing through and over several structures and will store rainwater within several items of infrastructure. These include:

- Roofs
- Gutters
- Filters;
- Pumps;
- Overflows; and
- Storage tanks.

5.2 All components should be installed in accordance with the manufacturer's instructions and to the levels/arrangements as defined on the designer's drawings.

5.3 This report should be read in conjunction with the design drawings of the drainage design system, so that the location and type of each feature can be recognised and understood.

5.4 Manufacturer's instructions are to be added to this document once specific products have been selected and installed as part of the detailed design. This document will subsequently form the basis for a maintenance regime for the rainwater harvesting systems.

6.0 General Maintenance Principles

6.1 All rainwater harvesting systems require regular maintenance to keep them working at optimum efficiency and capacity. The maintenance of the rainwater harvesting systems should be carried out alongside other regular maintenance tasks within the property.

6.2 Timely and adequate maintenance will increase the lifespan of the rainwater harvesting system. Inadequate maintenance will do the reverse.

6.3 The property owners are responsible for the monitoring and maintenance of the rainwater harvesting systems for the lifetime of the development.

7.0 Inspection and Maintenance Frequency of Components

7.1 Table 5.1 below lists each of the components used within the development's rainwater harvesting systems. It suggests an indicative maintenance frequency for each component and ascribes typical maintenance tasks to them.

7.2 It is understood that the system will be considered as a private water supply and, therefore, will be governed by the Private Water Supply Regulations 2016. These are regulated by the local council's Environmental Health Officer or Pollution Control Officer. However, the regulations in England and Wales do not require monitoring to be undertaken where the water supply is to a single domestic dwelling, unless the local authority is requested to do so by the owner or occupier of the dwelling, or if they are concerned that the supply presents a potential danger to human health.

7.3 In accordance with the Drinking Water Inspectorate's Private Water Supply regulations, it is the responsibility of the homeowner to ensure that all necessary maintenance activities are carried out in a timely manner and that the design performance of each drainage component is preserved. The homeowner may appoint a competent contractor to assist with the maintenance of their rainwater harvesting system. Additionally, the Council has a role to ensure the regulations are upheld by the homeowner.

7.4 If there is any uncertainty regarding the correct and safe methods of cleaning, or what equipment should be used, the manufacturer should be consulted.

Maintenance Schedule	Required Action	Frequency
Regular Maintenance	Inspection of the tank for debris and sediment build-up	Annually
	Inspection of inlets/outlets and withdrawal devices	Annually
	Inspection of filters	Annually
	Inspection of Pumps	Annually
	Inspection of overflow areas	Annually
	Inspection of gutters	Annually
	Cleaning of tank	Annually
	Cleaning of inlets and outlets and withdrawal devices	Annually
	Cleaning of gutters and roof drain filters	Annually
	Check pump operation	Annually
Occasional Maintenance	Cleaning and/or replacement of any filters	Quarterly
Remedial Actions	Repair of overflow erosion damage or damage to tank	As required
	Pump repairs	As required

Table 5.1 – Maintenance tasks and frequencies

7.5 Also, NA.1 in the BS EN 16941-1:2018 states that frequent testing should not normally be required for rainwater harvesting systems to ensure the water quality. It states that observations for water quality should be made during maintenance visits and testing should be carried out where the system is not operating satisfactorily. When sampling is required a sample should be taken and carried out in accordance with the guidance set out in NA.1 and Table NA.1 sets out the guideline values for bacteriological monitoring and Table NA.2 for non-bacteriological monitoring.

7.6 Upon completion of maintenance activities, a record should be kept of the work carried out. This should be retained and an annual maintenance report should be compiled, which should include the following:

- Observations resulting from inspections;
- Maintenance and operation activities undertaken during the year; and
- Recommendations for inspections and maintenance programmes for the following year.

7.7 On the next page is a table with suggested information that should be recorded and included with the maintenance plan. As mentioned in the introduction to this document, this should be a living document and regularly updated, as required and should be kept for the lifetime of the development.

Date	Component requiring maintenance	Issues prompting maintenance	Scheduled maintenance (Y/N)	Maintenance carried out	Additional works required (Y/N). If yes, please detail	Next scheduled date of inspection and maintenance

Appendix J

Flow Survey

Flow Report

Little Tanners
Tanners Farm
Mayes Lane
Winterfold
West Sussex
RH12 3SG

Property type: Residential

All units are in millimetres
LPM = Litres per min
Length x Width x Height

Main house

Kitchen:

- Kitchen Sink – 22LPM
- Washing machine – Indesit 'IWC71452'

En suite:

- Toilet dual flush 4/6Litre flush
- Wash basin – 20LPM
- Shower – 22LPM

Family bathroom:

- Shower – 12LPM
- Bath – 1600 x 600 x 400 (300 to overflow) - estimated 288 Litres to overflow
- Wash basin – 20LPM
- Toilet dual flush 4/6Litre flush

Outside:

- Outside tap - 22LPM

motion

Appendix K

Part G Calculation: Flow Survey

Part G - Bungalow Water Usage - Flow Survey

Fixture	Capacity/Flow Rate	Use Factor	Fixed Use	litres/person/ day
WC (Single Flush)		4.42		0.00
WC (Dual Flush)	6	1.46		8.76
WC (Dual Flush) Part	4	2.96		11.84
Taps (excluding kitchen)	20	1.58	1.58	33.18
Bath (where shower present)	300	0.11		33.00
Shower (where bath present)	12	4.37		52.44
Bath Only		0.5		0.00
Shower Only		5.6		0.00
Kitchen Sink	22	0.44	10.36	20.04
Washing Machine	6.43	2.1		13.50
Dishwasher		3.6		0.00
	Total calculated use (litres/person/day)			172.76
Normalisation Factor				0.91
Total Water Consumption (CSH) (litres/person/day)				157.21
External Water Use				5.00
Total Water Consumption (Part G) (litres/person/day)				162.21

	Population	Mains Water Usage
2-bedroom Bungalow	1.88	304.96
Totals	1.88	**304.96**

motion

Appendix L

Part G Calculation: Retrofit

Part G - Bungalow Water Usage - Fixtures and Fittings

Fixture	Capacity/Flow Rate	Use Factor	Fixed Use	litres/person/ day
WC (Single Flush)		4.42		0.00
WC (Dual Flush)	4	1.46		5.84
WC (Dual Flush) Part	2	2.96		5.92
Taps (excluding kitchen)	2.7	1.58	1.58	5.85
Bath (where shower present)	300	0.11		33.00
Shower (where bath present)	6	4.37		26.22
Bath Only		0.5		0.00
Shower Only		5.6		0.00
Kitchen Sink	4	0.44	10.36	12.12
Washing Machine	6.43	2.1		13.50
Dishwasher		3.6		0.00
	Total calculated use (litres/person/day)			102.45
Normalisation Factor				0.91
Total Water Consumption (CSH) (litres/person/day)				93.23
External Water Use				5.00
Total Water Consumption (Part G) (litres/person/day)				98.23

	Population	Mains Water Usage
2-bedroom Bungalow	1.88	184.66
Totals	1.88	**184.66**

Schedule 3

The Owner's Covenants to the Council in relation to the Application Site

With the intention of binding the Application Site, and for the purpose of allowing Development to be delivered and to remain Water Neutral in perpetuity, the Owner covenants with the Council as follows:

1. Monitoring Fees

   1.1. To pay the Monitoring Fees to the Council on or prior to completion of this Agreement;

   1.2. Not to Commence Development unless and until the Monitoring Fees have been paid in full to the Council.

2. Water Neutrality

   2.1. Prior to Occupation of the Development, to submit evidence in writing to the Council that the Application Site Measures and the Offsetting Site Measures in the approved Water Neutrality Statement have been implemented in full at the Application Site and at the Offsetting Site respectively, the evidence to include the specifications and photographs of the installed measures and a Part G water calculator (or equivalent) detailing the resultant surveyed water consumption of the Application Site and the Offsetting Site.

   2.2. Not to Occupy the Development until the Council has confirmed in writing that the Application Site Measures and the Offsetting Site Measures in the approved Water Neutrality Statement have been implemented in full at the Application Site and at the Offsetting Site;

   2.3. Where installed the Application Site Measures shall be:

      2.3.1. retained in perpetuity;

      2.3.2. not removed or replaced other than with a replacement fixture(s) or fitting(s) which meet(s) an equivalent or more efficient water standard; and

      2.3.3. maintained and kept in good repair.

3. To allow the Council to enter the Application Site for the purpose of inspecting the Application Site Measures and ensuring that the measures are retained as required provided that the Council gives not less than 24 (twenty-four) hours' notice in writing of its intention to inspect the Application Site Measures;

4. That in the event that the Application Site or any part of it is transferred (whilst this Agreement still subsists but not where it has terminated pursuant to clause 10.11), that the transfer contains a covenant by the transferee:

   4.1. to comply with the restrictions and obligations set out in this Agreement;

   4.2. to maintain and keep in good repair the Application Site Measures installed on the Application Site in accordance with the Water Neutrality Statement and this Agreement;

   4.3. to consent to the entering of the following restriction on the transferee's title to the Application Site at HM Land Registry following the registration of the transfer and shall provide the transferor with all necessary assistance and/or documentation to permit entry of the restriction:

      "No disposition of the registered estate (other than a charge) by the proprietor of the registered estate, or by the proprietor of any registered charge, not being a charge registered before the entry of this restriction, is to be registered without a certificate signed by the proprietor for the time being of the estate registered under title number [ ] or their conveyancer that the provisions of clause XX of [Details of the Transfer] have been complied with or that they do not apply to such disposition".

Schedule 4

The Offsetting Site Owners' Covenants to the Council in relation to the Offsetting Site

The Offsetting Site Owners covenant with the Council so as to bind their interest in the Offsetting Site and for the purposes of ensuring that the Development can be delivered as Water Neutral as follows:

1. To implement the Offsetting Site Measures at the Offsetting Site in accordance with the Water Neutrality Statement at Schedule 2 prior to Occupation of the Development.
2. To retain the Offsetting Site Measures in perpetuity and not to remove or replace them other than with a replacement fixture or fitting which meets an equivalent or more efficient water standard.
3. To maintain and keep in good repair the Offsetting Site Measures installed on the Offsetting Site in accordance with the Water Neutrality Statement.
4. To allow the Council to enter the Offsetting Site for the purpose of inspecting the Offsetting Site Measures and ensuring that the measures are retained as required provided that the Council gives not less than 1 (one) Working Day's notice in writing of its intention to inspect the Offsetting Site Measures.
5. That, in the event that the Offsetting Site or any part of it is transferred (whilst this Agreement still subsists but not where it has terminated pursuant to clause 10.11), the Offsetting Site Owners shall ensure the transfer contains a covenant by the transferee such that the transferee is obliged to:
   i. comply with the restrictions and obligations set out in this Agreement;
   ii. maintain and keep in good repair the Offsetting Site Measures installed on the Offsetting Site in accordance with the Water Neutrality Statement and this Agreement;
   iii. consent to the entering of the following restriction on the transferee's title to the Offsetting Site at HM Land Registry following the registration of the transfer and shall provide the transferor with all necessary assistance and/or documentation to permit entry of the restriction:

   "No disposition of the registered estate (other than a charge) by the proprietor of the registered estate, or by the proprietor of any registered charge, not being a charge registered before the entry of this restriction, is to be registered without a certificate signed by the proprietor for the time being of the estate registered under titled number [ ] or their conveyancer that the provisions of clause XX of [Details of the Transfer] have been complied with or that they do not apply to such disposition".