From: SM-Defra-Plan Cons Area Team (Sussex and Kent) (NE) [redacted]

Sent: 25 April 2025 13:14

To: Planning

Subject: FW: 2025-05-13 510608 - HRA & AA - Conversion of agricultural barn to 2 dwellings - Monks Farm, Honeywood Lane, Okewood Hill, Dorking (Horsham) HRA/25/0008

Attachments: ufm3_Water_Neutrality_consult.pdf; 9DB08CC6FD7D4B3183C64B4E51552D89 (2).pdf; HRA250008 DRFAT ECOLOGY (HRA APPROPRIATE ASSESSMENT) [HDC DRAFT1] Appropriate Assessment - PRO FORMA.pdf; Annex A to standard letters - PDF.PDF

Categories: Consultations

Dear Planning at Horsham,

Thank you for consulting with Natural England regarding the following consultation.

The proposed development fall within the Sussex North Water Supply Zone; As set out in Natural England's Advice Note regarding Water Neutrality within the Sussex North Water Supply Zone, the existing water supply in the Sussex North Water Supply Zone cannot be ruled out as contributing to the declines in wildlife within internationally protected sites in the Arun Valley SPA, SAC and Ramsar site. Achieving water neutrality is recognised as a suitable method to rule out potential adverse effects on the integrity of these sites arising from development.

Considering the supporting information provided by the applicant and your authority's Habitats Regulation Assessment (HRA) our advice is as follows.

Our ref	LPA ref	Planning Consultation and Location	Natural England's advice
510608	HRA/25/0008	**Planning Consultation**: HRA & Appropriate Assessment - Application under Regulation 77 of the Conservation of Habitats & Species Regulations 2017 relating to Prior Approval consent DC/25/0090 Conversion of agricultural barn to 2 dwellings. **Location**: Monks Farm, Honeywood Lane, Okewood Hill, Dorking RH5 5QA	We concur with the conclusion of your authority's HRA appropriate assessment insofar that adverse effects on the integrity of the Arun Valley Designated sites cannot be ruled out, as such: Further information is required to determine the significance of impacts on designated sites and the scope for mitigation, chiefly: That the information requested in the HRA is provided

Further general advice on the protected species and other natural environment issues is provided in the attached Annex A.

If you have any queries relating to this advice please let us know.

Yours sincerely,

Connor Bush

From: planning@horsham.gov.uk <planning@horsham.gov.uk>
Sent: 22 April 2025 16:01
To: SM-NE-Consultations (NE) [redacted]
Subject: Planning Application Water Neutrality Consultation - HRA/25/0008

Please see the attached consultation letter regarding Water Neutrality from Horsham District Council Re:HRA/25/0008

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Annex A – Additional advice

Natural England offers the following additional advice:

Landscape
Paragraph 174 of the National Planning Policy Framework (NPPF) highlights the need to protect and enhance valued landscapes through the planning system. This application may present opportunities to protect and enhance locally valued landscapes, including any local landscape designations. You may want to consider whether any local landscape features or characteristics (such as ponds, woodland, or dry-stone walls) could be incorporated into the development to respond to and enhance local landscape character and distinctiveness, in line with any local landscape character assessments. Where the impacts of development are likely to be significant, a Landscape & Visual Impact Assessment should be provided with the proposal to inform decision making. We refer you to the Landscape Institute Guidelines for Landscape and Visual Impact Assessment for further guidance.

Best and most versatile agricultural land and soils
Local planning authorities are responsible for ensuring that they have sufficient detailed agricultural land classification (ALC) information to apply NPPF policies (Paragraphs 174 and 175). This is the case regardless of whether the proposed development is sufficiently large to consult Natural England. Further information is contained in GOV.UK guidance Agricultural Land Classification information is available on the Magic website on the Data.Gov.uk website. If you consider the proposal has significant implications for further loss of 'best and most versatile' agricultural land, we would be pleased to discuss the matter further.

Guidance on soil protection is available in the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites, and we recommend its use in the design and construction of development, including any planning conditions. For mineral working and landfilling separate guidance on soil protection for site restoration and aftercare is available on Gov.uk website. Detailed guidance on soil handling for mineral sites is contained in the Institute of Quarrying *Good Practice Guide for Handling Soils in Mineral Workings*.

Should the development proceed, we advise that the developer uses an appropriately experienced soil specialist to advise on, and supervise soil handling, including identifying when soils are dry enough to be handled and how to make the best use of soils on site.

Protected Species
Natural England has produced standing advice[1] to help planning authorities understand the impact of particular developments on protected species. We advise you to refer to this advice. Natural England will only provide bespoke advice on protected species where they form part of a Site of Special Scientific Interest or in exceptional circumstances.

Local sites and priority habitats and species
You should consider the impacts of the proposed development on any local wildlife or geodiversity sites, in line with paragraphs 175 and179 of the NPPF and any relevant development plan policy. There may also be opportunities to enhance local sites and improve their connectivity. Natural England does not hold locally specific information on local sites and recommends further information is obtained from appropriate bodies such as the local records centre, wildlife trust, geoconservation groups or recording societies.

Priority habitats and Species are of particular importance for nature conservation and are included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. List of priority habitats and species can be found on Gov.uk.
Natural England does not routinely hold species data, such data should be collected when impacts on priority habitats or species are considered likely. Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land, further information including links to the open mosaic habitats inventory can be found here.

[1] https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals

Annex A – Additional advice

Ancient woodland, ancient and veteran trees
You should consider any impacts on ancient woodland and ancient and veteran trees in line with paragraph 180 of the NPPF. Natural England maintains the Ancient Woodland Inventory which can help identify ancient woodland. Natural England and the Forestry Commission have produced standing advice for planning authorities in relation to ancient woodland and ancient and veteran trees. It should be taken into account by planning authorities when determining relevant planning applications. Natural England will only provide bespoke advice on ancient woodland, ancient and veteran trees where they form part of a Site of Special Scientific Interest or in exceptional circumstances.

Environmental gains
Development should provide net gains for biodiversity in line with the NPPF paragraphs 174(d), 179 and 180. Development also provides opportunities to secure wider environmental gains, as outlined in the NPPF (paragraphs 8, 73, 104, 120,174, 175 and 180). We advise you to follow the mitigation hierarchy as set out in paragraph 180 of the NPPF and firstly consider what existing environmental features on and around the site can be retained or enhanced or what new features could be incorporated into the development proposal. Where onsite measures are not possible, you should consider off site measures. Opportunities for enhancement might include:

- Restoring a neglected hedgerow.
- Creating a new pond as an attractive feature on the site.
- Planting trees characteristic to the local area to make a positive contribution to the local landscape.
- Using native plants in landscaping schemes for better nectar and seed sources for bees and birds.
- Incorporating swift boxes or bat boxes into the design of new buildings.
- Designing lighting to encourage wildlife.
- Adding a green roof to new buildings.

Natural England's Biodiversity Metric 4.0 may be used to calculate biodiversity losses and gains for terrestrial and intertidal habitats and can be used to inform any development project. For small development sites the Small Sites Metric may be used. This is a simplified version of Biodiversity Metric 4.0 and is designed for use where certain criteria are met.

Natural England's Environmental Benefits from Nature tool may be used to identify opportunities to enhance wider benefits from nature and to avoid and minimise any negative impacts. It is designed to work alongside Biodiversity Metric 4.0 and is available as a beta test version.

Green Infrastructure
Natural England's Green Infrastructure Framework provides evidence-based advice and tools on how to design, deliver and manage green infrastructure (GI) . GI should create and maintain green liveable places that enable people to experience and connect with nature, and that offer everyone, wherever they live, access to good quality parks, greenspaces, recreational, walking and cycling routes that are inclusive, safe, welcoming, well-managed and accessible for all. GI provision should enhance ecological networks, support ecosystems services and connect as a living network at local, regional and national scales.

Development should be designed to meet the 15 Green Infrastructure Principles. The Green Infrastructure Standards can be used to inform the quality, quantity and type of green infrastructure to be provided. Major development should have a GI plan including a long-term delivery and management plan. Relevant aspects of local authority green infrastructure strategies should be delivered where appropriate.

GI mapping resources are available here and here. These can be used to help assess deficiencies in greenspace provision and identify priority locations for new GI provision.

Access and Recreation
Natural England encourages any proposal to incorporate measures to help improve people's access to the natural environment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways should be considered. Links to urban fringe areas should also be explored to strengthen access networks, reduce fragmentation, and promote wider green infrastructure.

Annex A – Additional advice

Rights of Way, Access land, Coastal access and National Trails
Paragraphs 100 and 174 of the NPPF highlight the important of public rights of way and access. Development should consider potential impacts on access land, common land, rights of way and coastal access routes in the vicinity of the development. Consideration should also be given to the potential impacts on the any nearby National Trails. The National Trails website www.nationaltrail.co.uk provides information including contact details for the National Trail Officer. Appropriate mitigation measures should be incorporated for any adverse impacts.

Biodiversity duty
Your authority has a duty to have regard to conserving biodiversity as part of your decision making. Conserving biodiversity can also include restoration or enhancement to a population or habitat. Further information is available here.

Ref: 24059 – Monk Farm, Barn

Class Q prior approval application

Monk Farm, Ruckmans Lane, Dorking, RH5 5QA

Water Neutrality Statement (WNS)

Prepared on behalf of Steve Flavin
Project: Conversion of Agricultural Barn to Two Dwellings
Date: 19.02.2025

1.0 Introduction

1.1 This Water Neutrality Statement (WNS) has been prepared on behalf of Steve Flavin to demonstrate how the proposed development 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), it is understood that Horsham District Council requires all new and reserved matter planning applications 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 supply area 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, rainwater harvesting, and greywater recycling; and
- Measures to offset any remaining deficit following the above.

2.0 Background

2.1 The site is located at Monk Farm, Ruckmans Lane, Dorking, RH5 5QA, West Sussex, and consists of an existing agricultural barn.

2.2 The proposed development is for the conversion of the barn into two residential dwellings using Permitted Development rights available under Class Q. Each dwelling will accommodate an average of 4/5 people. A copy of the proposed plan can be found in Appendix C.

3.0 Existing Demand

3.1 **Historical Usage Context**
The existing site, an agricultural barn of approximately 234 square metres, was previously used for storage of farming equipment, with a water supply primarily used for hosing down machinery and

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performing cleaning tasks. Although precise historical data on water usage is not available, an estimated usage can be derived based on typical agricultural equipment cleaning requirements. However, the data will not be used in the calculations.

3.2 **Estimated Historical Water Usage for Equipment Cleaning**
Equipment cleaning for agricultural purposes typically requires around 20–30 litres per square metre per session. Assuming an approximate monthly cleaning frequency, the historical water demand for the barn can be estimated as follows:

- **Estimated Water Use per Cleaning Session:**

  234 m^2×25 litres/m^2=5,850 litres/session

- **Monthly Cleaning Estimate:**

  5,850 litres/session×1 session/month=5,850 litres/month

- **Annual Estimate:**

  5,850 litres/month×12 months=70,200 litres/year

4.0 Additional Demand

4.1 The proposed development consists of the conversion of the barn into two residential units. Each unit will include water-efficient fixtures such as toilets, showerheads, and taps.

4.2 The average occupancy of the two dwellings is 10 people (5 people per dwelling).

4.3 The calculated water usage for the proposed facilities is as follows:

- **Toilet Use**: Toilets will have a dual-flush system (3 litres for low flush and 4.5 litres for high flush). Assuming 5 flushes per person per day:

  Total Toilet Usage=10 people×15 litres/person/day=150 litres/day

- **Shower and Tap Use**: With showerheads at 6 litres per minute and an average usage of 5 minutes, along with taps using 3 litres per minute for 5 minutes:

  Total Shower and Tap Usage=10 people×45 litres/person/day=450 litres/day

- **Total Daily Water Usage**:

  Total Daily Usage=150 litres/day+450 litres/day+144 litres/day=744 litres/day

- **Annual Water Usage**:

  Annual Usage=744 litres/day×365 days≈271,560 litres/year

4.4 The proposed residential conversion will also require fresh water for standard domestic uses, such as showering, drinking, cooking, and dishwashing. These are essential for the households and cannot be replaced by non-potable sources like rainwater or greywater.

- **Estimated Water Demand per Person:** Based on typical residential usage, freshwater requirements are expected to average approximately:
    - Showering: 40 litres/person/day
    - Drinking and Cooking: 5 litres/person/day
    - Dishwashing: 10 litres/person/day (using an efficient dishwasher)
- **Daily Fresh Water Demand for the Development:** Assuming 5 people per dwelling across two dwellings (total 10 people), the daily demand is calculated as:

  (40+5+10) litres/person/day×10 people=550 litres/day

- **Annual Fresh Water Demand:**

  550 litres/day×365≈200,750 litres/year

Source: https://www.water.org.uk/news-views-publications/news/vast-majority-brits-have-no-idea-how-much-water-they-use-each-day

4.5 At this stage, the proposed development cannot be considered water neutral.

Greywater can replace fresh water for common household uses that don't require potable water quality, such as flushing toilets and running washing machines.

5.0 Water Reduction

5.1 In line with the NE Position Statement, water usage will be minimised by implementing water-efficient fixtures, rainwater harvesting, and greywater recycling.

5.2 **Rainwater Harvesting**:

- The barn has a 234 m² roof area, with average annual rainfall for the region of 800 mm (0.8 metres). Using a runoff coefficient of 0.85, the expected rainwater harvesting is calculated as: Rainwater Harvested=0.8 m×234 m2×0.85≈159,120 litres/year
- Rainwater will primarily be used for non-potable purposes, including toilet flushing and garden irrigation, reducing reliance on potable water by up to 159,120 litres annually.

5.3 **Greywater Recycling**:

- A greywater recycling system will be installed to reuse wastewater from showers and sinks for toilet flushing, further reducing potable water demand.
- Greywater recycling can typically reduce toilet flushing water needs by up to 80%.

5.4 **Estimated Greywater Recycled**:

- Assuming 10 residents each generate 45 litres per day from showers and tap use, the greywater available for recycling is:
  Daily Greywater=10 people×45 litres/person/day=450 litres/day
- The annual potential for greywater recycling: 450 litres/day x 365≈164,250 litres/day

5.5 **Recycled Greywater Use for Toilet and Washing Machine**
To further reduce reliance on potable water, the greywater recycling system will be extended to supply non-potable water for both toilet flushing and washing machine use. This recycled water is suitable for these applications, significantly reducing the demand for fresh water.

- **Estimated Greywater Demand for Toilet Flushing:** Toilets with dual flush systems (using 3 litres for low flush and 4.5 litres for high flush) are expected to require approximately 15 litres per person per day for typical use. Assuming an occupancy of 10 people across the three dwellings, the total greywater demand for toilet flushing is calculated as:

  10 people×15 litres/person/day=150 litres/day

- **Annual Greywater Demand for Toilet Flushing:**

  150 litres/day×365≈54,750 litres/year

- **Estimated Greywater Demand for Washing Machines:** Each washing machine cycle typically uses 50 litres, and with an estimated 4 cycles per week per dwelling, the total greywater demand for washing machines is:

  2 dwellings×4 cycles/week×50 litres/cycle=400 litres/week

- **Annual Greywater Demand for Washing Machines:**

  400 litres/week×52≈20,800 litres/year

5.6 **Total Projected Potable Water Offset**
The greywater recycling system, supplying both toilet flushing and washing machines, is expected to provide substantial offsets against the total freshwater demand. With an estimated 54,750 litres/year offset for toilet flushing and an additional 20,800 litres/year offset for washing machine use, the total greywater recycling offset is:

- **Total Annual Offset from Greywater Recycling:**
  54,750 litres/year+20,800 litres/year=75,550 litres/year

5.7 **Conclusion on Baseline and Offset Usage**
The historical baseline water usage of 70,200 litres/year was limited to equipment cleaning. However, with the residential conversion and the integration of greywater recycling for toilets and washing machines, the new development's potable water demand is expected to be substantially offset by these systems. This approach supports the development's compliance with water neutrality requirements, demonstrating a responsible and sustainable use of both fresh and recycled water resources.

6.0 Conclusion

6.1 Through the combination of greywater recycling, rainwater harvesting, and the implementation of water-efficient fixtures, the proposed development will significantly reduce its freshwater demand and achieve water neutrality.

6.2 With the projected offsets and reductions outlined in this statement, the development aligns with sustainable water management practices and contributes to water neutrality in the SNWSZ.

Additionally, the barn supplies drinking water to grazing horses in the adjacent fields. However, this usage has not been quantified for the purposes of this report.

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Appendices

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- **Appendix A**: NE's Position Statement on Water Neutrality

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.

www.gov.uk/natural-england

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.

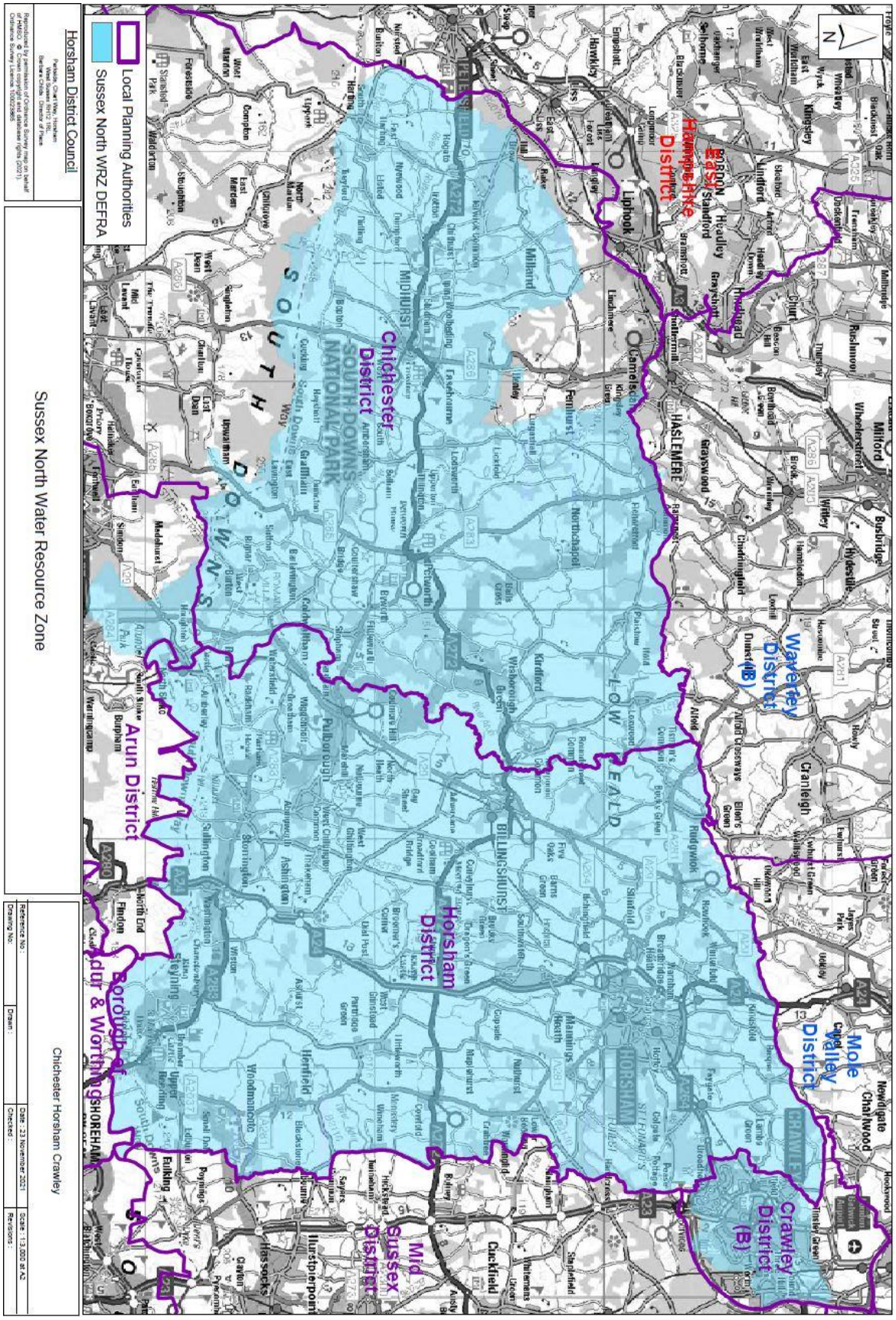
Any mitigation must be suitably certain in order to comply with the Habitats Regulations and Caselaw.

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**: Map of the Sussex North Water Supply Zone



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- **Appendix C**: Proposed Plan



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Appendix D: **Greywater Recycling Calculations**

1. Greywater Generation

1.1 Daily Greywater Generation from Showers and Sinks

- **Assumptions**:
  - Average greywater generation per person per day from showers and sinks: 45 litres/person/day
  - Total occupancy: 10 people (5 people per dwelling × 2 dwellings)
- **Daily Greywater Generation Calculation**:

  Daily Greywater = Number of People × Greywater per Person
  Daily Greywater=10 people×45 litres/person/day=450 litres/day

1.2 Annual Greywater Generation

- **Annual Greywater Generation Calculation**:

  Annual Greywater = Daily Greywater × 365

  Annual Greywater = 450 litres/day × 365≈164,250 litres/year

2. Greywater Reuse

2.1 Greywater Reuse for Toilet Flushing

- **Assumption**:
  - Greywater can replace up to 80% of the water needed for toilet flushing.
- **Daily Toilet Flushing Requirement**:
  - Total daily toilet use from the previous calculations: 150 litres/day.
- **Daily Greywater Available for Toilet Flushing**:
  - Total greywater available: 450 litres/day
  - Percentage reused for toilet flushing: 80%
- **Daily Toilet Flushing Offset Calculation**:

  Daily Toilet Flushing Offset = Daily Greywater × 0.8

  Daily Toilet Flushing Offset = 450 litres/day x 0.8 = 360 litres/day

- **Annual Toilet Flushing Offset Calculation**:

  Annual Toilet Flushing Offset=360 litres/day×365≈131,400 litres/year

2.2 Greywater Reuse for Washing Machines

- **Assumption**:
  - Each washing machine cycle uses approximately 50 litres, and each dwelling has an estimated 4 cycles per week.

- **Daily Greywater Demand for Washing Machines**:
    - Number of dwellings: 2
    - Cycles per week per dwelling: 4
    - Total greywater required for washing machines per week:

  Weekly Greywater for Washing Machines = 2 dwellings × 4 cycles/week × 50 litres/cycle = 400 litres/week

- **Annual Greywater Demand for Washing Machines**:

  Annual Greywater Demand = 400 litres/week × 52 ≈ 20,800 litres/year

3. Total Greywater Offset Calculation

- **Total Annual Offset from Greywater Recycling**:

  Total Annual Offset=Annual Toilet Flushing Offset+Annual Greywater Demand for Washing Machines

  Total Annual Offset=131,400 litres/year+20,800 litres/year=152,200 litres/year

Summary of Greywater Recycling Calculations

- **Total Greywater Generated Annually**: 152,200 litres/year
- **Total Annual Offset from Greywater Recycling**:
    - Toilet Flushing: 131,400 litres/year
    - Washing Machines: 20,800 litres/year
    - **Total**: 152,200 litres/year

This calculation demonstrates the potential of greywater recycling to significantly reduce potable water demand in the proposed residential development while ensuring sustainability and compliance with water neutrality requirements.