

Portsmouth City Council

Updated Interim Nutrient Neutral Mitigation Strategy for New
Dwellings

for the 2021- 2023/24 period

February 2022

Contents

1. Introduction	3
2. Background	5
2.1. Why is Mitigation Needed?.....	5
2.2. Sources of Nutrient Enrichment.....	6
2.3. Regulatory Regimes and Government Agency's Positions	9
2.4 Catchment-wide work on Strategic Solution	10
3. Mitigation Measures	11
3.1 What type of development requires mitigation?	11
3.2 Mitigation Options	12
4 Developer Contributions, Implementation and Monitoring	17
Developer Contributions	17
Implementation: S106 Agreement and Planning Conditions	18
Monitoring	19
Appendices	21
Appendix 1: Case Study of Mitigation from Direct Off-setting.....	21
Appendix 2: Case Study of Mitigation from Bespoke Solutions	22
Appendix 3: PCC Water Efficiency Data	23
Appendix 4: Water Use Calculation advice note	24
Appendix 5: Water Efficiency standardised condition.....	25

1. Introduction

- 1.1 High levels of nitrogen draining from the Solent catchment area have caused excessive growth of green algae (a process called eutrophication), which is having a recognised, detrimental impact upon the region's internationally protected habitats.
- 1.2 Following changes in European Case law, Natural England (the government's advisor for the natural environment) advised Local Planning Authorities (LPAs) that all new development involving, or generating additional, overnight stays should be 'nutrient neutral', as one means of ensuring that development does not add to the existing nutrient burdens. Impacts from additional wastewater generated by new development on water quality must be appropriately addressed in order for the Appropriate Assessments¹ of proposals to conclude that there are no adverse effects on habitat sites (and for the Council's decisions to be legally compliant).
- 1.3 Mitigation measures to become 'nutrient neutral'² are therefore required for additional dwellings (including the intensification of dwellings), tourism related development and any other development likely to generate an overnight stay, due to the additional wastewater generated.
- 1.4 The Council approved the first version of Interim Nutrient Neutral Mitigation Strategy for New Dwellings to address the need for mitigation in November 2019. The Strategy to date focused on the use of 'mitigation 'credit' largely accumulated from water efficiency upgrades to the Council's housing stock to ensure there is no net increase in nitrogen output from the city. This 'business as usual' generated source of mitigation was only envisioned to be able to provide 'credit' for a limited time (potentially 2-3 years), subject to monitoring of both the water efficiency upgrade works and demand for/ uptake of the accumulated 'credit bank' by the development industry. The projected capacity of this source is diminishing as the Council's programme of upgrades continue, though the actual accrual of water savings was limited in 2020/21 by Covid-19 pandemic restrictions limiting works to essential only.
- 1.5 The Hampshire and Isle of Wight Wildlife Trust (HIOWWT) has developed a 'nature-based solution' to provide nitrogen mitigation. The scheme works by acquiring intensively managed farmland that currently release high levels of nutrients (nitrogen) into the Solent and changing the way it is managed (i.e. grazed less intensively or left to 'rewild') to produce a much lower nitrogen output; the difference in nitrogen output would be used to offset the impact of new development. There is also the potential for wider environmental benefits through

¹ An assessment required by the Habitats Directive (transposed by the *Conservation of Habitats and Species Regulations 2017* (as amended)) to determine whether a plan or project is likely to have a significant impact on a Natura 2000 site.

² 'Nutrient neutrality' would be achieved where the wastewater output of a development (calculated by water use in litres per person per day) sent to Wastewater Treatment Works can be offset by other measures.

biodiversity net gains. Natural England has approved the compliance of the Trust's scheme in principle with the requirements of the Habitat Regulations. Portsmouth City Council has bulk purchased 'mitigation credit' from a Trust acquired site (located on the Isle of Wight) in order to help enable minor and PCC development in the city.

- 1.6 The Strategy indicates the routes available to applicants to secure appropriate mitigation for proposals, including provisions for purchasing 'mitigation credit' from the Council or a third party.
- 1.7 While developers are still encouraged to put forward their own mitigation solutions, for either part or all of the impact of the proposal where possible, it is acknowledged that as the majority of proposals in the city are small scale and/ or within tightly constrained brownfield sites.
- 1.8 The aim of this Updated Interim Strategy is to help the Council meet the tests of the Habitat Regulations in perpetuity, avert the potential risk of legal challenge and to provide certainty for applicants. All applications, and the associated nitrate neutral mitigation proposals, will still be determined on a case by case basis in consultation with Natural England and other key consultees.
- 1.9 The Updated Interim Strategy is intended to provide a mitigation solution for the short term (three to four years) to ensure house building can continue in Portsmouth. The Council, together with the Partnership for South Hampshire (PfSH) authorities, will continue to develop a comprehensive, longer term strategic solution and lobby the Government to address the main sources of water pollution.
- 1.10 This Strategy does not deal with any other impacts from new dwellings on the Solent habitat sites (such as loss of habitat or increased noise) or the potential impact of other types of development (such as new employment sites). Separate mitigation may be required to address these additional impacts on the SPAs that arise from new development. The impact of in-combination recreational visits arising from housing is still addressed separately by the Solent SPAs by the Solent Recreation Mitigation Strategy (known as 'Bird Aware').³
- 1.11 This document sets out the background to the water quality issue affecting the Solent; the roles of different agencies; what types of development require mitigation; mitigation options, a schedule for developer contributions and the expected arrangements for implementation, monitoring and review of the Strategy.

³ Solent Recreation Mitigation Partnership (December 2017) *Solent Recreation Mitigation Strategy*. See <https://www.birdaware.org/>

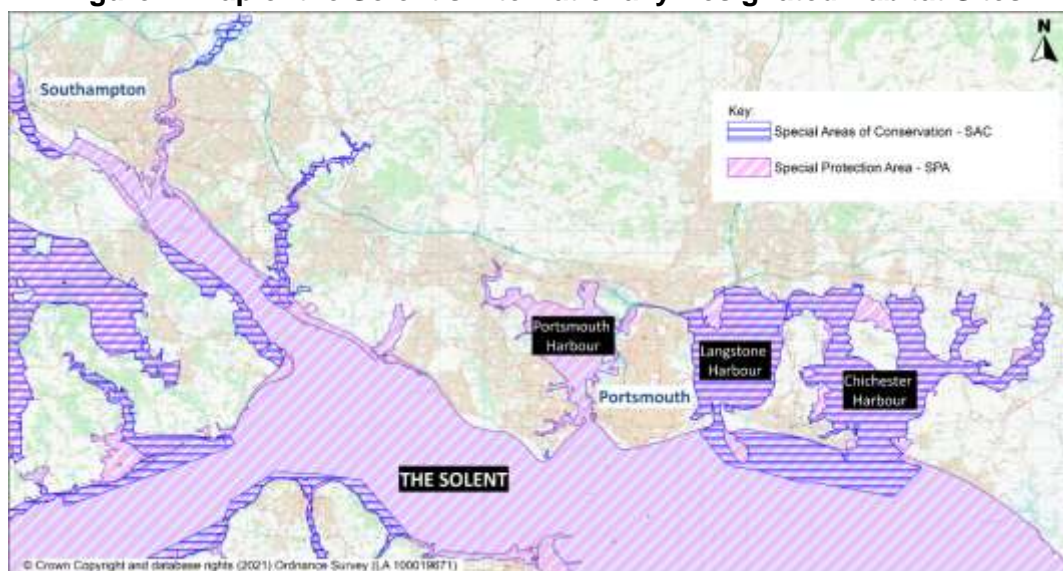
2. Background

2.1. Why is Mitigation Needed?

2.1.1 The Solent's water environment is protected under the Water Environment Regulations⁴ and the Conservation of Habitats and Species Regulations⁵ and has national protection for parts of the coastline and seas⁶.

2.1.2 The best available up-to-date evidence identified that some areas of the internationally designated Solent habitat sites (Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are in an 'unfavourable' condition due to existing levels of nutrients (causing eutrophication) and therefore have an **unfavourable conservation status** under the Habitats Regulations⁷. Eutrophication also restricts the growth, distribution and variety of food available for wading birds also protected under the Habitat regulations.

Figure 1: Map of the Solent's Internationally Designated Habitat Sites



2.1.3 While the PfSH Water Quality Working Group was from 2018 in the process of preparing a long term strategy to address the impacts of anticipated growth in south Hampshire on the water environment beyond the year 2020, changes in European case law resulted in nutrient enrichment becoming an immediate planning issue for Local Authorities. A Court of Justice of the European Union (CJEU) decision, known as the 'Dutch Case'⁸ (in combination with the 'Sweetman' judgement⁹) has

⁴ *The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017*

⁵ *Conservation of Habitats and Species Regulations (England and Wales) Regulations 2017 (as amended)*

⁶ Including *Wildlife and Countryside Act 1981* (as amended), *Countryside and Rights of Way Act 2000*, *Marine and Coastal Access Act 2009* and *Natural Environment and Rural Communities Act 2006*.

⁷ Natural England's Condition Assessments of the Solent habitat sites were undertaken in the summer of 2018 summarised in Natural England (June 2019) Advice to LPAs: Advice On Achieving Nutrient Neutrality For New Development In The Solent Region

⁸ Joined CJEU Cases C-293/17 and C-294/17 *Coöperatie Mobilisatie for the Environment UA and Others v College van gedeputeerde staten van Limburg and Others* issued on 07 November 2018.

⁹ CJEU Case C-323/17 *People Over Wind, Peter Sweetman v Coillte Teoranta* judgement issued in April 2018

implications for areas where the conservation status of a habitat type is already known to be “unfavourable” (as in the case in the Solent) and the authorisation of activities (i.e. new housing) which would add further nitrogen loading to that habitat (through additional sewage output). The judgement therefore applies to the decisions of LPAs within the Solent area.

- 2.1.4 Natural England advise that the uncertainty about the impact of new development on designated sites therefore must be to be recognised for all proposals that are subject to new planning permissions and have inevitable wastewater implications from additional overnight stays. Any increase is deemed significant, however small (e.g. one additional dwelling), due to the in-combination impacts. Natural England's stance is that the achievement of **nutrient neutrality**, with a calculated nitrogen budget, if scientifically and practically effective, is a means of ensuring that development does not add to existing nutrient burdens and will enable Appropriate Assessments to conclude no adverse effects on international sites.
- 2.1.5 At the time of writing this updated strategy, Natural England's fifth version of 'Advice on Achieving Nutrient Neutrality for New Development in the Solent Region' is the latest version which was published in June 2020¹⁰.

2.2. Sources of Nutrient Enrichment

- 2.2.1 Nutrient cycles are natural processes. However, these systems have been overloaded in a relatively short span of time (post-industrialisation), and this has been particularly attributed to application of synthetic fertilisers in agricultural practices.
- 2.2.2 An excessive richness of nutrients (including Nitrogen and Phosphorous) can cause a dense growth of plant life and algae (a process known as Eutrophication); this depletes the oxygen in the water body, which can result in reduced biodiversity. Reduced oxygen in drinking water can also be harmful to people¹¹. Nutrient pollution can also damage terrestrial habitats by altering plant growth rates, changing plant communities and disrupting the food chain for wildlife.
- 2.2.3 Nitrogen is converted into its multiple forms as it circulates among the atmospheric, terrestrial and marine ecosystems. There are two main forms of nitrogen - organic and inorganic. Within certain levels, nitrogen is beneficial to animals, plants and the wider environment, but if highly concentrated (in oxidised form as nitrates (stable compound) or nitrites (unstable compound)) can have a damaging impact on ecosystems and the organisms that depend on them.
- 2.2.4 Phosphorous is an essential nutrient for plant growth'; in fertiliser it helps plants convert other nutrients into usable building blocks for growth. Phosphorous is not part of the nitrogen cycle but has similarities with nitrates as a pollutant; run-off from

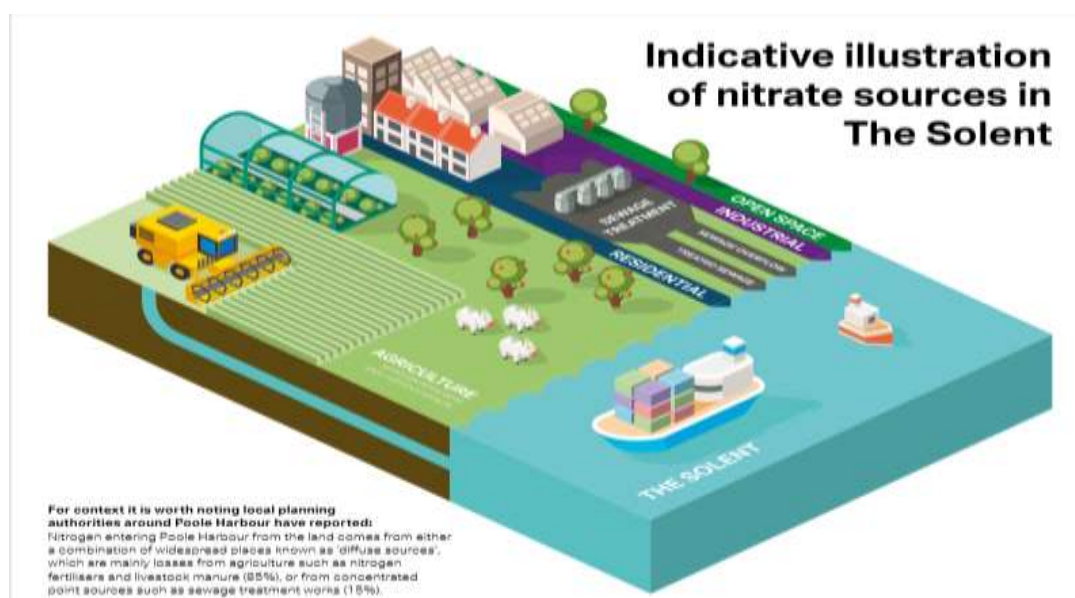
¹⁰ Available from the PCC website at: <https://www.portsmouth.gov.uk/services/development-and-planning/planning-policy/nitrate-mitigation-strategy/>

¹¹ *Water Supply (Water Quality) Regulations 2000* impose stringent standards for over 50 different parameters that are used to assess the quality of drinking water; 50 mg/l (milligrams per litre) of nitrate are allowed in drinking water. Portsmouth Water have installed blending arrangements to meet these limits. For more information see: <https://www.portsmouthwater.co.uk/about-us/water-quality/>

agriculture use and sewage output can cause eutrophication and ecological deterioration of surface waters. Generally, phosphorous is considered to be more of a pollutant in rivers than other water bodies and groundwater sources, though this is depends upon the local geology.

- 2.2.5 Water quality is affected by a combination of different pollutants, including nitrogen and phosphorous. It is considered that the cycle of both nutrients, and their interaction with each other, need to be understood to improve the ecological status of water sources¹².
- 2.2.6 Notwithstanding the above, there is evidence that the principal nutrient that tends to drive eutrophication in the marine environment is nitrogen, and this is supported by modelling and research undertaken by the Environment Agency within the Solent estuaries. **The best available evidence at this time therefore indicates that the focus within the Solent catchment should be on nitrogen reduction.**
- 2.2.7 Overall it is thought that around 75% of nitrogen pollution arises from agriculture land uses and 25% from urban land uses. See Figure 2 and Table 1 for more information on the sources of excess nitrogen and its impacts. Nitrate enrichment is not an issue exclusive to the Solent catchment; about 55% of land in England was within a 'Nitrate Vulnerable Zone' (NVZ) in 2018, designated as at 'risk from agricultural nitrate'¹³.

Figure 2: Sources of Nutrients



¹² House of Commons Environmental Audit Committee: UK Progress on Reducing Nitrate Pollution, Eleventh Report of Session 2017–19

¹³ NVZ land is comprised of rivers breaching the 50 mg/l nitrate limit (47%); groundwater breaches the 50 mg/l limit (25%) and eutrophication in estuaries and lakes/reservoirs (6% (13 estuaries and 68 lakes/ reservoirs)).

Table 1: Source of Nitrogen Pollution and Impact Pathways¹⁴

Source of Nutrients	Pathway/ Impact
Agricultural practices	Manufactured fertiliser (containing urea, ammonium and nitrate) increases agricultural production by replacing naturally occurring nitrogen in soil, but excess can run off and leach from crops and grasslands into water systems causing pollution. Animal wastes can also result in nitrate and phosphorous leaching into water systems if poorly managed.
Sewage	Nutrient enrichment from treated and untreated domestic and industrial wastewater outputs. This can occur from permitted discharges from Wastewater Treatment Works (WwTs), unpermitted spills and other wastewater infrastructure failures (including urban runoff and overflows).
Urban Runoff	Leaching of pollutants (e.g. atmospheric deposition, lawn fertiliser, pet waste) from urban areas carried by rain and stormwater from roads and other impermeable surfaces into sewers and watercourses.
Atmospheric Deposition	The emission of pollutants from the energy (inc household heating), transport, agriculture and industrial sectors also form part of the wider nitrogen cycle. This includes nitrogen oxides ¹⁵ , as well as ammonia and particulate matter (PM10 and PM2.5) which can mix with other pollutants such as ozone and sulphur dioxide. Such emissions can lead to negative impacts on human health and ecosystems; for instance when nitrogen oxides dissolve in water and decompose, they form nitric or nitrous acids which can lead to acidity and eutrophication.
Natural Sources	The build-up and/ or run off of algal growth, organic decay and faecal matter.
Past Agricultural and Industrial practices	The gradual leaching of nitrates into groundwater sources from high historic use, despite current controls and decreases in use over the last 35 years, due to the geology in some parts of the UK (particularly in chalk and thick saturated zones). It is estimated that pollution from such sources may not peak for another 60-100 years. ¹⁶
Potential Future Sources/ Increases	<ul style="list-style-type: none"> - Increased effluent from population growth. - Increased land pressures from increasing demand for food from population growth and the UK's potential departure from the EU. - Changes to the stability of nitrate in soils from climate change increasing the frequency and intensity of rainfall and drought.

¹⁴ Table adapted from Annex 1 of the House of Commons Environmental Audit Committee UK Progress on Reducing Nitrate Pollution Eleventh Report of Session 2017–19.

¹⁵ Nitrogen oxides are the generic name for a range of gases, including nitrous oxide, nitrogen dioxide, nitric oxide and nitrous oxide.

¹⁶ House of Commons Environmental Audit Committee UK Progress on Reducing Nitrate Pollution Eleventh Report of Session 2017–19, para. 35.

2.3. Regulatory Regimes and Government Agency's Positions

2.3.1 The regulation of the water industry and the agricultural sector are matters for the Government and its agencies and, as indicated in the previous section, the nitrogen output of new dwellings is relatively minor compared with other sources. Nevertheless, the planning system provides the comprehensive regulatory mechanism to address such impacts explicitly for each new consent. This is in contrast to the other contributing sources of nitrate pollution, which tend to operate within existing consent regimes or through voluntary agreements.

2.3.2 The roles of the relevant bodies are as follows:

The **Department for Environment Food and Rural Affairs (DEFRA)** issues guidance relating to the natural environment and the food and farming industries, and sets the overall water and sewerage policy framework in England. This includes limits on the maximum average amount of manufactured fertiliser and organic manure that can be applied to most crops in NVZs, and the conditions in which this can be done. Defra's Catchment Sensitive Farming (CSF) programme works with farmers to take voluntary actions to reduce diffuse water pollution fertiliser and slurry run-off. Natural England and the Environment Agency are executive non-departmental public bodies of Defra.

The **Environment Agency (EA)** is the water industry's environmental regulator and defines the environmental permits that water companies are required to meet. These permits set limits on the amount of certain pollutants that can be released. The EA works with water companies, including Southern Water, to develop the Water Industry National Environment Programme (WINEP) which includes schemes and investigations that protect and enhance the environment.

Natural England is the government's adviser on the natural environment with duties for protecting and enhancing biodiversity for the benefit of present and future generations.

Ofwat are the economic regulator of the water and sewerage sectors in England and Wales. They ensure that the water companies properly carry out their functions and protect the interests of consumers.

Southern Water is the relevant statutory undertaker for wastewater services in the PfSH area. It is regulated by a permit system set by the Environment Agency which limits the amounts of nitrates and phosphates which can enter water courses from Southern Water's infrastructure.

Portsmouth Water are the drinking water supplier to Portsmouth and the surrounding area. As part of Ofwat's 2024 price review (PR24), all water companies must submit a detailed business plan to Ofwat, outlining how they will meet the needs of their customers from 2025 to 2030 and beyond; covering investment proposals, how they will ensure the long-term resilience of their infrastructure and operations and fee proposals.

Ministry of Levelling Up, Houses and Communities (MLUHC) is the government department with responsibility for increasing the housing supply in England and boosting local economic growth. MHCLG sets out planning policy guidance for Local Authorities, including the Housing Delivery Test; if a Local Authority falls 5% below its set housing requirement, the government will introduce sanctions depending on the extent of the shortfall.

Local Planning Authorities (LPAs) are responsible for carrying out planning functions (plan-making and the determination of planning applications) for their authority area. As a public body, LPAs also have a duty to conserve biodiversity under the Natural Environment and Rural Communities Act 2006 as well as new duty to actively enhance biodiversity introduced by the Environment Act 2021 through requiring the development delivers net gains in biodiversity.

2.4 Catchment-wide work on Strategic Solution

2.4.1 The Council, through the *PfSH Water Quality Working Group* have engaged on the need for a joined up approach and the need to develop a comprehensive, long-term, funded mitigation strategy for the Solent area. The ongoing work of the Group included an update of the PfSH 2018 *Integrated Water Management Strategy* (IWMS) which will assess the sensitivity of the whole catchment and address water resource capacity, supply and quality issues as well as testing some of the underlying assumptions in the original 2018 IWMS.

2.4.2 A full-time Strategic Environmental Planning Officer (SEPO) was appointed in December 2020 to further the work of this group and ensure a consistent approach across the sub region where possible. The following recommendations from the SEPO for local planning authorities were endorsed PfSH Joint Committee on 27th July 2021:

- consider the purchase of nitrogen mitigation credits from mitigation suppliers specifically to meet the needs of minor development based on an individual authority's assessment of need
- purchase of credits is recommended on a combined catchment basis to ensure best market value is achieved
- use a standard suite of template legal agreements to reduce the legal costs to developers and to make the determination of application process more efficient

2.4.3 In May 2021, Fareham Borough Council (FBC) was the first Council in South Hampshire to have its approach to safeguarding the environment of The Solent from the effects of nitrates tested in the Courts. Two judicial reviews which challenged the approach of Fareham Borough Council in granting permission for two small housing developments (Greenway Lane and Brook Avenue) to adopting the approach to avoiding adverse effect to the integrity of protected habitats (on the facts of the specific cases) of Natural England's Advice on Achieving Nutrient Neutrality for New Development in the Solent Region (5th ed. 2020). These legal challenges were important to all those using the Natural England methodology as the basis for planning decisions within the catchment The High Court concluded that the approach

taken by Fareham Borough Council to mitigate the effects of nitrates on The Solent was legally sound. However, as suggested within the judgement, it is expected that Natural England will amend their advice note in respect of when bespoke occupancy assessments will be needed. Once Natural England update their advice, this strategy may be revised as needed.

3. Mitigation Measures

- 3.1 The mitigation options in this Updated Strategy provide a possible framework for applicants to demonstrate and secure 'nutrient neutrality' in perpetuity for their proposals, whilst a longer term strategy/ solution for the Solent is being developed.

3.1 What type of development requires mitigation?

- 3.1.1 Mitigation is required for development which results in a net increase in population or draws additional visitors from beyond the catchment, due to the inevitable additional wastewater implications. This is expected to apply to planning applications, permissions in principle and prior approvals¹⁷ for the following:

- New dwellings and residential accommodation, including changes of use (e.g. office to residential)
- Homes in Multiple Occupation enlargements (Class C4 Use to Sui Generis Use)
- Student accommodation
- Dwellings to be used as holiday accommodation (e.g. caravans)
- Hotels
- Tourism attractions

- 3.1.2 Mitigation should not be required for wastewater arising from:

- Household (Class C3 Use) extensions for extra bedrooms, or for conversions from a dwelling (Class C3 Use) to a House in Multiple Occupation (HMO) (C4 Use). This is because there is no upper limit on household (Class C3 Use) occupation within a single family and therefore such applications do not necessarily result in a net increase in population.
- Other uses that do not involve overnight accommodation or generate overnight stays. E.g. Commercial development, employment uses or community facilities. This is because it is assumed, to avoid double counting of wastewater arising, that anyone living in the catchment also works and uses facilities within the catchment.

- 3.1.3 The need for mitigation for applications for temporary/ transit pitches and/ or permanent accommodation for gypsies and travellers would be assessed on a case-by-case basis by the Council in consultation with Natural England.

- 3.1.4 Early discussion with the Council on the need for mitigation, determining the impact of the proposal and potential mitigation options is strongly encouraged.

¹⁷ Under the provisions of Schedule 2 of the *Town and Country Planning (General Permitted Development) Order (England) 2015* (as amended)

3.2 Mitigation Options

- 3.2.1 To address the impact of new development on designated habitat sites in the Solent, planning applications requiring mitigation must submit information on how the proposal would achieve Nutrient Neutrality, including a calculated **Nitrogen Budget of the proposal** based on Natural England's current Nutrient Neutral Methodology, and details of the options explored and discounted as applicable.
- 3.2.2 For advice on calculating a Nitrogen Budget see Natural England's Methodology for further details and the Nitrogen Budget Calculator and guidance notes available on the Council's website¹⁸.
- 3.2.3 The following approaches are currently considered to be acceptable, in principle, as means of achieving or contributing to nutrient neutrality:
- **Mitigation Option 1:** Offsetting against the existing lawful land use on an application site, extant permissions or other land controlled by the applicant; and/ or
 - **Mitigation Option 2:** bespoke direct and in-direct mitigation measures, agreed in discussion with the Council and Natural England. For instance, Sustainable Urban Drainage Systems (SUDS), interception or wetland creation; and/ or
 - **Mitigation Route 3: Purchasing of 'mitigation credit' from recognised source of nitrogen mitigation:** Purchase of 'mitigation credit' from the Council or other landowner/ recognised source of 'mitigation credit', secured in perpetuity. See route 3a & 3b for minor and major development respectively.
- 3.2.4 A mix of Options can be applied. The purchase of the Council's mitigation credit (Option 3a) will be available to minor development proposals (9 units and below) and Portsmouth City Council development as appropriate. **All mitigation proposals would be considered on a case by case basis and in consultation with Natural England.**
- 3.2.5 Planning permission will not be granted until appropriate mitigation has been secured through a Section 106 legal agreement. All proposals will be subject to standard conditions and require high level of water efficiency (110 litres per person per day).
- 3.2.6 Agreed mitigation measures would need to be delivered prior to first occupation, which is when the harm would occur in this instance. A phasing of delivery and mitigation is possible for larger developments.

¹⁸ Nitrate Mitigation Strategy supporting documents available online at:
<https://www.portsmouth.gov.uk/services/development-and-planning/planning-policy/nitrate-mitigation-strategy/>

Mitigation Option 1: Off-Setting Solutions

3.2.7 In some instances the existing lawful use (water output) or application history of a development site could be taken into account for the Nitrogen Budget of the proposal to help reduce or negate the impact of the proposed use. The following examples could be discussed as potential off-setting measures:

- Redevelopment to a lower or equal occupancy.
- Dwellings numbers/ estimated water use¹⁹ from extant planning permissions.²⁰
- Changes of use or change of land management on other land which drains into the same catchment and is controlled by the applicant (either directly or by agreement) in perpetuity. For example, the ceasing of a relevant wastewater generating use, or a change of use to land with a lower nitrogen loss (e.g. agricultural land to open space). Any changes of land use would need to be enforceable in perpetuity.
- Other significant water savings which can be sufficiently evidenced (e.g. ultra high water efficiencies).

3.2.8 All proposals will be expected to implement higher standards of water efficiency (no more than 110 litres per person per day), to be secured by condition.

- Changes of use on other land which drains into the same catchment and is controlled by the applicant (either directly or by agreement) in perpetuity. For example, the ceasing of a relevant wastewater generating use, or a change of use to land with a lower nitrogen loss (e.g. agricultural land to open space). Any changes of land use would need to be enforceable in perpetuity.
- Other significant water savings which can be sufficiently evidenced (e.g. ultra high water efficiencies).

3.2.9 All proposals will be expected to implement higher standards of water efficiency (no more than 110 litres per person per day), to be secured by condition.

3.2.10 See Appendix 1 for Case Study of Mitigation from Direct Off-setting.

Mitigation Option 2: Bespoke Mitigation Solutions

3.2.11 If direct off-setting is insufficient to result in nitrate neutrality other bespoke mitigation options should be explored to be incorporate in the design or delivery of the proposed relevant development. Examples of options supported in principle by Natural England include the following:

- Measures that will remove nitrogen draining directly from individual development sites, such as incorporating on-site wetland or reed beds designed as part of a sustainable urban drainage (SUDs) system. Wetlands receiving nitrogen-rich water

¹⁹ Best available evidence.

²⁰ The account to be taken of extant planning permissions will be determined on a case by case basis considering the status of the extant permission, the likelihood of implementation and with acknowledgement of the Council's discretionary power to revoke permissions under s97 of the Town and Country Planning Act when it is expedient to do so to support the general duty to take appropriate steps to avoid significant deterioration of habitats and disturbance of species in accordance with Article 6(2) of the Habitats Directive.

can remove a proportion of this nitrogen through processes such as denitrification and sedimentation.

- The creation of wetlands, SANG, woodlands, nature reserves and other Green Infrastructure (GI) from agricultural land, leading to a change in land use to a lower level of nitrogen input within the same catchment and securing this in perpetuity.
- The creation of agreements, either within the authorities and Southern Water or with third parties to provide and maintain an increase in nitrogen offsetting from catchment management measures. This could include interceptor wetlands or woodland planting schemes on a farm in the catchment.

3.1.12 See Appendix 2 for Case Study of Mitigation from Bespoke Solutions

Mitigation Route 3: Purchasing of 'mitigation credit' from recognised source of nitrogen mitigation in perpetuity

3.2.13 Once an applicant has fully considered and evidenced the opportunities for off-setting the proposed development's Nitrogen Budget by maximising any potential opportunities under Options 1 & 2 (i.e. offsetting against relevant previous on-site uses and potential alternative uses on other land that can be bought into the developers control, and design and delivery opportunities to mitigate any remaining excess nitrogen); then support from the Council's 'Nutrient Neutral' mitigation credit bank, or third party mitigation provision can be sought.

Land management change

3.2.14 Hampshire and Isle of Wight Wildlife Trust (HIOWWT) and other landowners within the East Hampshire catchment area are offering 'nitrogen mitigation credit' through the acquisition of farmland and/ or the change in management of existing land holdings, from intensively used agriculture releasing high levels of nutrients (nitrogen) into the Solent, to a use that produces a much lower nitrogen output (i.e. grazed less intensively or left to 'rewild'); the difference in nitrogen output is therefore used to offset the impact of new development. Natural England has endorsed the suitability of such schemes with the requirements of the Habitat Regulations in principle, and it is considered a legally compliant solution for development.

3.2.15 The Council has entered into an agreement with the Hampshire and Isle of Wight Wildlife Trust (HIOWWT) regarding a suitable site on the Isle of Wight that will help provide for the mitigation needs of the projected level of ('overnight stay') development expected to be seeking planning permission in Portsmouth within the next three years. The HIOWWT has thereby provisionally reserved an area of agricultural estate to meet the needs arising from Portsmouth (up to 3,00kg) including a bulk purchase by the Council of 750-1500kg of mitigation credit. The bulk purchase of credit by the Council is intended to help to enable housebuilding in the city by absorbing the associated legal and admin fees that would otherwise add to the cost of minor development (local small and medium sized house builders) per dwelling. The agreement with the HIOWWT will also include a Nitrates Management Plan; an assessment of the nitrate levels using Natural England's methodology²¹ and

²¹ Natural England 'Advice on Achieving Nutrient Neutrality for New Development in the Solent Region'

how the land will be managed to reduce nitrate levels and deliver the HIOWWT's Charitable Objectives.

- 3.2.16 All proposals seeking mitigation credit from the Hampshire and Isle of Wight Wildlife Trust (HIOWWT), either through the Council or directly with the Trust, will be subject to appropriate legal agreements to secure the enforceability of the scheme between Portsmouth City Council as the Local Planning Authority (LPA) for the proposed development, the Isle of Wight Council as the LPA for the mitigation land and the leaseholder (HIOWWT) / freehold owner.

Reduction in water use from Council owned assets

- 3.2.17 The Council is able to use its influence [as landowner] to make permanent changes and decisions regarding its existing property holdings, and has the flexibility to consider other mitigation options. Portsmouth City Council owns and manages nearly 15,000 homes in Portsmouth and Havant, which all fall within the required wastewater catchment zone.
- 3.2.18 To date, accumulated water efficiency improvements, and other water savings from the control of the Council's own assets, have been used to provide wastewater 'headroom' (or 'credit') for new development. These savings, in combination with securing higher water efficiency standards for new development by condition, have ensured, in principle, that there are no net increase in wastewater from the city area to its Wastewater Treatment Works (WwTW). If less water is sent to the WwTW for processing, less treated wastewater can be released in the Solent under its permitted concentration limit for nitrogen which is measured in milligrams per litre. For further information on how water savings are calculated see Appendix 3.
- 3.2.19 **While the water efficiency generated mitigation credit is diminishing as upgrades are progressively carried out, the remaining 'business as usual' generated mitigation credit from this source may continue to be utilised at the Council's discretion.**
- 3.2.20 Other off-setting opportunities within the Council's residential ownership may also arise in future (such as the closure or consolidation of assets). The Council, as part of its role as a housing authority, has detailed records of the current water consumption with its stock and would be able to demonstrate that the water consumption in older PCC facilities are above that expected for typical residential accommodation. The reduction in waste water that would be created by vacating such units, and holding them vacant, would allow the direct water savings to be utilised as offsetting for new development²². An appropriate internal agreement(s) would be created to recognise that the water saving, and associated 'credit', has been made available to offset new development.
- 3.2.21 Mitigation credit, secured from either source(s), would provide certainty for applicants and will help enable the delivery of new homes in Portsmouth and would be monitored as part the Council's 'nitrate credit bank'.

²² The future redevelopment of sites which have been utilised for offsetting will need to identify further mitigation at the relevant time to satisfy the likely outcome of an Appropriate Assessment.

- 3.2.22 As Natural England expects any mitigation measures to be secured 'in perpetuity', it will accept such water saving measures (in principle) made by a public body about changes to its own assets to qualify. In general, Natural England do not accept such measures within the private sector at this time, due to uncertainties in whether such improvements can be secured over the long term.
- 3.2.23 Credit can be secured for minor (and Council development) and major development, as detailed in option 3a & 3b below.

Mitigation route 3a: Major Development (10 dwellings and above or equivalent)

Major development proposals will be referred to the Hampshire and Isle of Wight Wildlife Trust (HIOWWT), with whom the Council has provisionally reserved sufficient mitigation credit to meet the anticipated needs of major development, to directly purchase and secure mitigation credit.

Agreements with other landowners within the catchment to secure mitigation credit are also acceptable in principle. At the time of writing, the HIOWWT scheme is the most competitive option.

Mitigation Route 3b: Minor Development (9 dwelling and below equivalent)

The Council can provide mitigation credit, primarily from the HIOWWT mitigation scheme, for purchase for Portsmouth City Council development and minor development (9 units and below) to help enable house building in the city.

- 3.2.24 The Council may reserve the right to elect to provide mitigation credit on a case by case basis where there are demonstrated viability issues for schemes relating to key strategic objectives, at its own discretion.
- 3.2.25 The potential costs and expected legal requirements are outlined in the following section: *Chapter 4: Developer Contributions, Implementation & Monitoring*.

4 Developer Contributions, Implementation and Monitoring

Developer Contributions

- 4.1 The average indicative costs of the mitigation scheme per unit, at a rate of **£2,500 per kg**, are indicated in Table 1 based on the current Natural England methodology calculations (version 5, 2020). As mitigation is required to be place for the duration of the impact, the payment schedule is inclusive of the costs of maintaining the scheme 'in-perpetuity'.
- **Major development:** Mitigation purchased directly from the landowner may be subject to additional fees.
 - **Minor and PCC development:** The Council, through the bulk purchase of credit has covered any additional legal and admin fees that would otherwise add to the costs of minor development per dwelling. Cost recovery from applicants from this scheme (as indicated in Table 4) is to be collected and pooled through S.106 agreements.

Table 3: Nitrate Mitigation Credit Bank Charging Schedule (Cost Recovery in Perpetuity) for Minor Development and Portsmouth City Council Development Only.

Nitrate Credit	Cost per credit
1kg	£2,500

- 4.2 On the basis of Table 3 and using the current Natural England methodology (version 5), Table 4 below shows the indicative cost based on C3 Use Class dwelling at an assumed 2.4 occupancy at 110 litres per person per day

Table 4: Indicative Costs of Mitigation Credit

Number of net new dwellings	Number of credits (kg) needed (assuming development is on brownfield land)	Indicative cost ²³
1	0.8	£2,000
2	1.6	£4,000
3	2.3	£5,750
4	3.1	£7,750
5	3.9	£9,750
6	4.7	£11,750
7	5.4	£13,500
8	6.2	£15,500
9	7.0	£17,500

²³ Excludes any additional fees that may be charged by the landowner for major development schemes

Viability of Costs

- 4.3 The draft *Viability Assessment*²⁴ prepared for the new draft Local Plan (December 2020); suggests that development in Portsmouth should be capable of providing up to £5,000 per dwelling in s.106 Habitat Regulations mitigation costs (inc. recreation disturbance ('Bird Aware' scheme) and nitrate offsetting) in principle, without affecting the delivery of other requirements (such as affordable housing provision). The *Viability Assessment* does however acknowledge that case by case viability assessments may still be necessary.
- 4.4 Further guidance on calculating water use by type of planning application, and therefore the quantity (kgs) of mitigation required, is set out in Appendix 4.

Implementation

- 4.5 Implementation of *Mitigation Route 3: Purchasing of 'mitigation credit' from recognised source of nitrogen mitigation in perpetuity*, will be subject to purchase by the applicant and appropriate legal agreements to secure the enforceability of the scheme between Portsmouth City Council as the Local Planning Authority (LPA) for the proposed development, the Isle of Wight Council as the LPA for the mitigation land and the leaseholder / freehold owner. This will also ensure that once any part of the Mitigation Land has been secured as 'credits linked land' as part of a planning permission it will not be able to become the subject of separate commitments by the owner to another local planning authority or developer, to avoid any 'double counting' of the mitigation land.
- 4.6 The credit purchased from the Council's nitrate neutral mitigation credit bank will need to be secured through s106 planning obligations prior to occupation of the development. Planning permission will not be granted until appropriate mitigation has been secured through S.106/S33 legal agreement.
- 4.7 Applicants for major schemes purchasing mitigation credit directly from the HLOWWT would be subject to a legal agreement to secure the enforceability of the scheme.
- 4.8 In addition to the payment required, new development will be granted with standard conditions to require higher levels of water efficiency (110 lpppd) and to prevent occupation until such time as the 'Nutrient Neutral' mitigation credit has been funded through the s.106 obligation. A template s.106 agreement is available for applicants and Standardised wording for the appropriate conditions can be found in Appendix 5.
- 4.9 Any such agreement will recognise that mitigation credits are non-transferable, and may only be used to mitigate development within the administrative area of Portsmouth City Council, unless explicitly authorised in writing by Portsmouth City Council as part of a formal Duty to Co-operate agreement.

²⁴ HDH Planning & Development Ltd for PCC (Oct 2020) Development Viability Assessment available from: <https://www.portsmouth.gov.uk/services/development-and-planning/planning-policy/new-local-plan-evidence/>

Monitoring

4.10 The Portsmouth's 'credit bank' will consist of credits purchased by the Council through the HIOWWT mitigation scheme, water efficiency improvements and any PCC assets that become vacant during the life of this Strategy.

4.11 Monitoring of the Updated Interim Strategy will be essential to determine the actual availability, demand and use of the mitigation credit, and to inform the on-going projected trajectory for the lifetime of the Strategy. The following will be monitored on a quarterly basis:

- Dual monitoring of the actual and anticipated uptake of nitrate credit by applicants, both at the grant of planning permission (in principle use) and at the point of occupation of the proposal (credit implementation) for the strategy period. This will include the mitigation credit purchased by applicants for minor developments and PCC development and the credit secured by applications for major development with the HIOWWT (or other landowner).
- The number of water efficiency upgrades undertaken on the PCC housing stock.
- Information on expected planning applications during the strategy period (estimated no of dwellings and timescales).
- Whether any further PCC controlled residential institutions, due for redevelopment, become available to be held vacant (by agreement) to be added to the mitigation credit bank.

4.12 The legal agreement securing the use of mitigation 'credit' arising from the change of agricultural land management includes an obligation upon the local planning authority for the mitigation land (the Isle of Wight Council in this instance) to monitor the site on behalf of the Owner to demonstrate how it has complied with its obligations with respect of its management and use of the credits linked land. A monitoring report is due to be send to PCC annually during the first 20 years of the agreement, then every five years until the end of the 'in perpetuity' contract period (130 years) with a final visit in the year of the end date.

4.13 Natural England has recommended that the monitoring of the Interim Strategy is also accompanied by a Water Consumption Monitoring Strategy to indicate whether the predicted water saving efficiencies from works to PCC stock are being realised, with provisions for adaptive management as necessary. This will be explored in conjunction with Natural England in due course.

Internal Governance

4.14 The Mitigation Credit Bank will be administered and monitored by the Planning Obligations Lead Officer. The Council's Mitigation Credit for individual applications will be allocated as appropriate through discussions with the relevant Case Officer.

4.15 Final decisions on the use of the mitigation credit for individual applications are at the discretion of the Head of Development Management and the Assistant Director of

Planning and Economic Growth, in agreement with the relevant Directorate Director and Cabinet Member(s) where PCC assets are concerned as necessary.

4.16 If mitigation credit is to be sourced from holding Council properties (residential institutions and significant residential blocks) due for redevelopment vacant, an appropriate internal agreement will be required for transparency, to avoid any unintentional 'double counting' of credit and to formally recognise the that sites utilised for off-setting are will not subsequently be brought back into use (occupied, redeveloped or disposed of); but any future redevelopment at the vacant/ previous site cannot rely upon its extant use for offsetting, would therefore need to secure its own nutrient neutral mitigation measures in accordance with this strategy. Such an agreement is likely to be in the form of resolution from the Council's Cabinet or the relevant Portfolio Members, as appropriate. The resolution would be noted with the property and GIS reports; if the assets was to the sold a s.111 agreement could be entered into with a prospective purchaser, appending a form of s.106 obligation to be entered into upon transfer.

4.17 If there is sufficient water efficiency works mitigation credit remaining, proposals led by development proposals by PCC Housing, Neighbourhood and Building Services directorate, would not incur a fee. Instead credit would be reserved and utilised by internal monitoring procedures and agreed by cabinet/ portfolio resolution.

Review of the Strategy

4.18 If the quarterly monitoring of the Updated Interim Strategy indicates that demand for 'nitrate credit' mitigation appears to be outstripping the anticipated supply, necessary revisions or additions to the Strategy may be considered.

4.19 The Council remains committed to developing and securing a wider, long term solution for 'nutrient neutral' development, beyond the life of this interim solution, in conjunction with the relevant government agencies, utilities providers and other LPAs within the Solent catchment.

Appendices

Appendix 1: Case Study of Mitigation from Direct Off-setting

Case Study of Mitigation from Direct Off-setting²⁵

Site: Longdean Lodge, Hilsea

Developer: Portsmouth City Council

Proposal: Development of 13 supported living flats

Mitigation: The site previously contained 48 bedspaces in a care home occupied with poor water efficiency, creating 7,584 litres of waste water per day. However this use was ceased and the building demolished more than three years ago such that the previous wastewater impacts cannot be 'credited' against the new development. The developer (Portsmouth City Council) has accepted a condition on the development of the site for 13 supported living flats, requiring higher water efficiency of 110 litres per person per day. This therefore requires direct mitigation for 1,430 litre of wastewater per day from the proposed new units. Edinburgh House previously contained 32 units/ bedspaces, meaning its permanent vacancy results in a wastewater reduction of 4,653 litres per day*, an improvement adequate to mitigate the development of Longdean (an estimated output of 3432 / 1430 lpppd), with the excess 'credit' being added to the Council's 'Nutrient Neutral' Mitigation Credit bank.

*Calculated at the average water consumption rate for Portsmouth of 145.4 lpppd.

²⁵ A resolution from Cabinet/ the relevant portfolio Member(s) would be needed ensure that Edinburgh House is not to be occupied or disposed of without securing its own nutrient mitigation measures in accordance with this strategy. The resolution would be noted with the property and GIS reports; if Edinburgh House was to be sold in future, a s.111 agreement could be entered into with a prospective purchaser, appending a form of s.106 obligation to be entered into upon transfer.

Appendix 2: Case Study of Mitigation from Bespoke Solutions

Case Study of Mitigation from Bespoke Solutions

Site: St James Hospital

Developer: Homes England and partners

Proposal: Development of 107 dwellings

Mitigation: To secure nitrate neutrality Homes England have offered to secure the change of use of an area of agricultural land within the relevant catchment to a use with significantly less nitrogen deposition. Using the standard methodology (summarised below), the reduction in total nitrogen has been identified as sufficient to mitigate the increased nitrate production from the redevelopment of land at St James Hospital, and further sites in Portsmouth as well as sites in the wider catchment outside of Portsmouth.

Methodology:

Total area of land to be used for mitigation = 4.13 ha

Current Nitrogen deposition from the land = 128.856 kg/

Proposed Nitrogen deposition from the land = 20.650 kg/ yr

(A) **Net Nitrogen reduction** = 108.206kg /yr

Proposed dwellings at St James Hospital = 107

Nitrogen production per dwelling (with water efficiency) = 1.0009kg/ yr

(B) **Total Nitrogen production** = 108.013kg/ yr

Net Nitrogen introduced to catchment (A-B) = -0.193 kg/ yr

Appendix 3: PCC Water Efficiency Data

The annual improvement works to the Council's housing stock by PCC Housing, Neighbourhood and Building Services lead to an average reduction in water consumption of 48 litres per person per day (lpppd)²⁶. For an average UK household (2.4 persons) this equates to a saving of 115 litres per day. On this basis, improvement works to two (2.29) homes could provide enough wastewater headroom (264 litres), in the form of 'mitigation credit', for one new dwelling. The addition of a precautionary buffer²⁷ to account for any uncertainties, as recommended by Natural England's methodology, this would equate to one new dwelling for every 2.5 dwellings upgraded.

The reactive upgrades over a four year period have seen the installation of an estimated annual average of 600 new over bath showers and 715 replacement dual flush WC cisterns each year. This is expected to be supplemented with a comprehensive upgrade of an additional 700 void properties, again based on a past average of the number of voids that become available within Portsmouth City Council stock

Based on four years of monitoring data by PCC Housing, Neighbourhood and Building Services, as set out in the separate Appendix B: PCC Water Efficiency Measures Data.

Appendix 4: Water Use Calculation advice note

The nitrogen budget and developer contribution (cost recovery) fees are both based on the expected water use (water output) of the development, and will therefore need to be calculated in relation to the below, and as agreed with the Case Officer for the proposal.

It is advised that the Council's Nitrogen Budget calculator, based on Natural England's methodology, is used to calculate the water output of the development.

Dwelling Houses (C3 uses)

An assumed occupancy of 2.4 persons per dwelling (at 110lppd) will be the basis for nitrogen budget unless the applicant is providing alternative average occupancy information.

Change of Use from a Dwelling House (C3 Use) or Home in Multiple Occupancy (C4 Use) to an Enlarged HMO (Sui Generis Use)

The Nitrogen Budget would be calculated on the increase in occupancy (at 110lpppd) on a case by case basis.

Student accommodation

For student accommodation there is in general more certainty regarding occupation: One unit (bedspace), equals one person (at 110 litres per person per day).

If occupation is limited to term time only, evidence for a lower average occupancy could be submitted for consideration, if applicants are also willing to limit occupancy by condition.

Residential Care Homes

The calculation for care homes and related types of development will depend on the nature of the proposed development (bedspaces / individual or shared units?). The basis of the calculation is likely to be 110pppd per person (bedspace / individually occupied unit), or 110lpppd by the number of units and times the maximum occupancy, or an average occupancy figure if the applicant can provide occupancy data for consideration.

Hotels

In view of the complexity around how rooms could be occupied (e.g. for business use or leisure on different days of the week), the Council consider it would be reasonable to calculate water use for hotels on a bedspace rather than per person basis. The Council has suggested the EA research report figure of 54.8 litres per bedspace per day* could be used as a starting point; applicants should still seek to provide alternative evidence on water use where possible.

*Water use benchmark for a 2-3 star hotel, no pool. Source: Environment Agency (2010) Energy and carbon implications of rainwater harvesting and greywater recycling, p41

Appendix 5: Water Efficiency standardised condition

Unless otherwise agreed in writing by the Local Planning Authority, the dwellings hereby permitted shall not be occupied until written documentary evidence has been submitted to, and approved in writing by the Local Planning Authority demonstrating that each of the dwellings has: Achieved a maximum water use of 110 litres per person per day as defined in paragraph 36(2)(b) of the Building Regulations 2010 (as amended). Such evidence shall be in the form of a post-construction stage water efficiency calculator.

Reason: To ensure that the development as built will minimise its need for resources and be able to fully comply with Policy PCS15 of the Portsmouth Plan (2012)