



1ST HORIZON

NUTRIENT NEUTRALITY ASSESSMENT
(REF: 8607-R09-NN) REV E

Client: **Home Office**

Project: **Haslar IRC, Gosport**

Date: **14/05/2026**



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1.0 INTRODUCTION

1.1 Background

- 1.1.1** 1st Horizon were commissioned to carry out a Nutrient Neutrality Assessment (NNA), in support of a Habitats Regulation Assessment (HRA) and Outline Planning Application for the expansion of an Immigration Removal Centre (IRC), as outlined in 1.1.2 below, located on land at Haslar IRC, Gosport (the 'Site'). The area in question is centred at National Grid Reference (NGR): 461508, 098288.
- 1.1.2** Redevelopment of Site includes refurbishment of a portion of the site for 130 residents (referred to as 'Haslar IRC Refurbishment') followed by an expansion of the IRC to accommodate an additional 470 residents (referred to as the 'Proposed Development') giving a total site capacity of 600 residents. The Haslar IRC Refurbishment works are currently being carried out; this application relates to the Proposed Development only.
- 1.1.3** Special Areas of Conservation (SAC), Special Protection Areas (SPA), Sites of Special Scientific Interest (SSSI), and Ramsar sites are some of the most important areas for wildlife in the United Kingdom. They are internationally important for their habitats and wildlife and are protected under the Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations). At some of these sites, there are high levels of nitrogen and phosphorus input into the protected water environment with evidence that these nutrients are causing eutrophication at designated sites. The nutrient inputs currently come either from agricultural sources or from wastewater from existing housing and other development. Excessive nutrients are impacting on protected habitats and species.
- 1.1.4** It is unclear whether new growth will further deteriorate designated sites, and/or make them appreciably more difficult to restore. The potential for future housing developments to exacerbate these impacts creates a risk to their potential future conservation status.
- 1.1.5** One way to address this uncertainty is for a new development to achieve nutrient neutrality. Nutrient neutrality ensures that a development does not add to existing nutrient burdens and provides certainty that the scheme is deliverable in line with the Habitats Regulations.
- 1.1.6** Where nutrient neutrality is properly applied and the existing land use does not undermine the conservation objectives, Natural England considers that an adverse effect on integrity alone and in combination can be ruled out.
- 1.1.7** Being 'nutrient neutral' means that the development does not add to existing Nitrogen (N) and Phosphorus (P) loads in catchments containing or draining to designated water bodies.
- 1.1.8** Nutrients (nitrogen and phosphorus compounds in particular) are essential for plant growth, but in excessive concentrations can cause eutrophication of water bodies which derogates water quality and directly affects invertebrates and fish, with indirect detrimental effects on dependent birds and other animals. The growth of algae blooms from this eutrophication prevents oxygen and sunlight from entering the waterbody and therefore habitats cannot survive. To reduce the risk of eutrophication, the statutory consultee Natural England under the Environment Act 2021 as amended¹, requires all new developments in the catchment of an at-risk designated water body (NNR, SSSI, SAC or SPA) to be as a minimum nutrient neutral, and has issued National Guidance (February 2022) to that effect.

¹ <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

1.1.9 N and P exist in several forms:

- **Nitrogen:** N₂ (gas), Nitrite ion (NO₂); Nitrate ion (NO₄), and Ammoniacal N (NH₃-N).
- **Phosphorus:** Phosphate ion (PO₄³⁻), inorganics (orthophosphate [the form used by plants] and polyphosphate) and organic phosphates.

1.1.10 All residential accommodation produces wastewater from the amenities provided for the collection and removal of human waste. Wastewater from toilets is 'black water' contaminated with chemicals and excrement; and used water from showers, sinks, baths, and laundry facilities produces 'grey water' with less harmful contamination. However, both types of water contain concentrations of N and P and in the UK are generally discharged as 'wastewater' to foul sewer.

1.1.11 Wastewater analysis generally assesses Total Nitrogen (TN) and Total Phosphorus (TP) (i.e., all forms of each nutrient combined).

1.2 Aims

1.2.1 This NNA is prepared in accordance with the Natural England' national level methodology², which has replaced several regional NE approaches to NNA.

1.2.2 The aims of this NNA are to:

- Apply the Solent nutrient budget calculator published by South Hampshire Council² (April 2023) to the Proposed Development, taking account of the assessment methodology published by Natural England in November 2022 and Natural England Advice Note NE785³.
- Assess the impacts of nutrient discharges from the Proposed Development on the status of the internationally designated Site of Special Scientific Interest and aims to demonstrate that the development will be nutrient neutral to nitrogen. This is the nutrient of concern as the Solent region is only affected by nitrogen.
- This NNA aims to provide enough pollution risk information to satisfy the requirements of the NPPF, PPG ID34 and regional/local government plans and policies. It describes the potential for the Site to be impacted by pollution, the impacts of the Proposed Development on pollution elsewhere near the Site, and the proposed measures that could be incorporated into the development to mitigate the identified risks.

1.3 Scope

1.3.1 Government policy on development and nutrient neutrality Conservation of Habitats and Species Regulations 2017 is set out in the National Planning Policy Framework (NPPF) and is supported by National Planning Practice Guidance: Water supply, wastewater and water quality [NPPG ID 34].

1.3.2 The NPPF sets out the need for an appropriate assessment of wastewater management at all levels of the planning process and require the application of a risk-based approach to assess the suitability of land for development in unfavourable areas.

² <http://publications.naturalengland.org.uk/file/4929269741649920>

² [Natural England nutrient calculator and guidance - Partnership for South Hampshire \(push.gov.uk\)](http://publications.naturalengland.org.uk/file/5133936477601792)

³ <http://publications.naturalengland.org.uk/file/5133936477601792>

2.0 BASELINE ENVIRONMENT

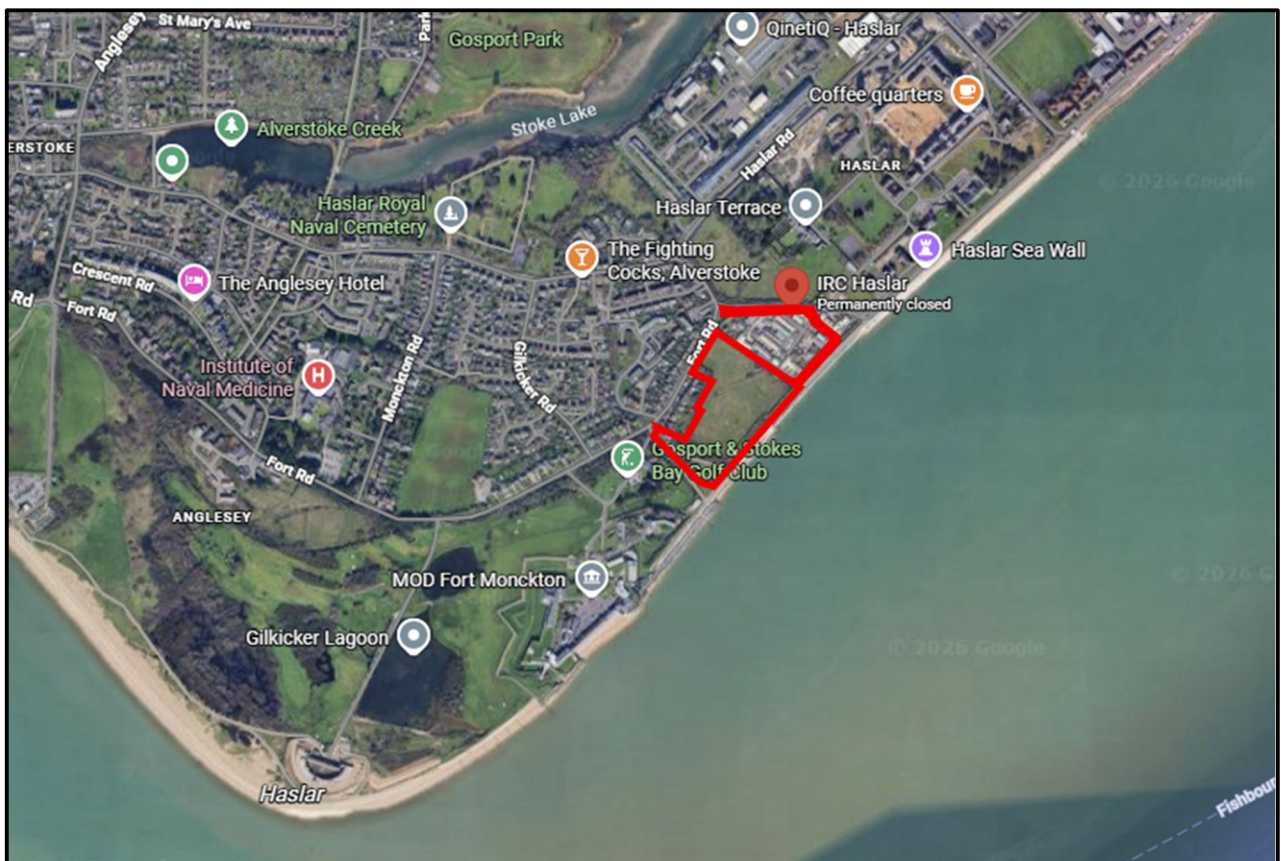
2.1 Site Location

- 2.1.1 The site is located on land at Haslar IRC, Dolphin Way, Gosport, PO12 2AW.
- 2.1.2 The site is centred on NGR: 461508, 098288.
- 2.1.3 The site location including the red line boundary is shown in **Figure 2.1**. The indicative layout is included in **Appendix A**.

2.2 Current Land Use

- 2.2.1 The land use is comprised of an existing IRC (which is currently being refurbished) and grassed field area.
- 2.2.2 The site is bounded by Dolphin Way with residential sue and greenspace beyond to the north, a sea wall associated with the Solent to the east, greenspace and a golf course to the southwest, and residential properties to the west.
- 2.2.3 The site is currently accessed from Dolphin Way to the north of the site.

Figure 2.1 - Site Location



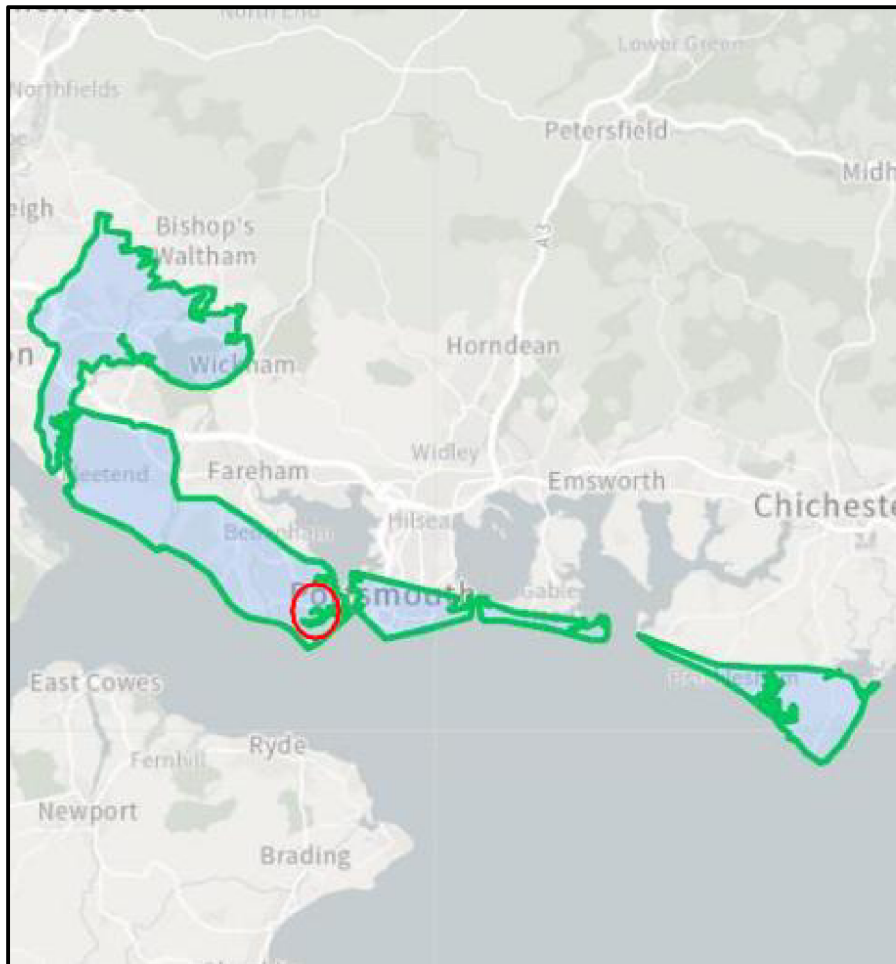
2.3 Land Use

- 2.3.1 The Proposed Development consists of the expansion of the IRC and creation of six new buildings (four of which are accommodation), dining hall, and recreational space. The site already forms part of the existing IRC and development will take place within its boundary, with the exception of an expanded car park.

2.4 Catchment

- 2.4.1 The site resides within the Hants South East Bracklesham Group Operational Catchment (**Figure 2.2**, which is a 'nutrient neutrality SSSI catchment' [EN/DEEFRA 2021]). A 'nutrient neutrality SSSI catchment' is a habitats site in unfavourable condition due to excessive nutrients which require a HRA and where nutrient neutrality is a potential solution to enable development to proceed. Nitrogen is the nutrient of concern in this assessment.

Figure 2.2 - Catchment Data Explorer



Contains Environment Agency information © Environment Agency and database right [2025].

2.5 Wastewater Treatment Works

- 2.5.1 Wastewater from the Proposed Development would be connected to the adjacent existing foul sewer and treated by Peel Common Wastewater Treatment Works (WwTW) operated by Southern Water.
- 2.5.2 Treated effluent from Peel Common WwTW is discharged into the River Alver. The Alver flows through The Wild Grounds SSSI and Browndown SSSI (the 'designated sites').

Figure 2.3 - Site Location and Peel Common WwTW

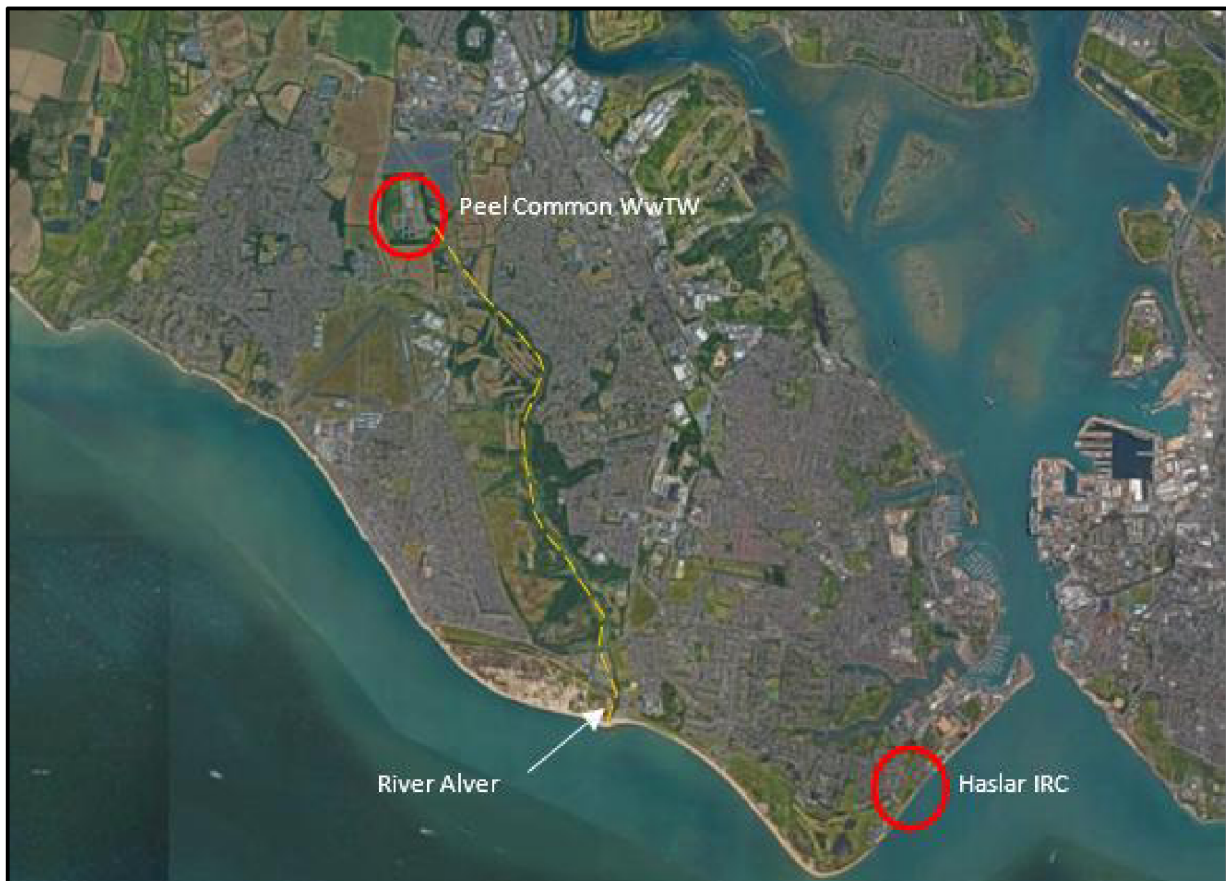


Image @ 2025 Digital Globe

2.6 Designated Sites

- 2.6.1 Using Department for Environment, Food & Rural Affairs (DEFRA) magic mapping it has been determined that there are no international, national, or local designated sites within the Proposed Development site boundary. Surface water from the site will not discharge to either of the SSSIs. The site that would discharge treated wastewater from the development is in the hydrological catchment area of the River Alver that flows through The Wild Grounds and Browndown SSSI designated sites. The Wild Grounds is located approximately 3.8km northwest of the site and Browndown is located approximately 2.8km northwest of the site.

Figure 2.4 - Designated Sites



From Magic Map. Contains EA information © EA and database right [2025].

2.6.2 The Wild Grounds Local Nature Reserve is an acid oakwood on the Brickearth of the south Hampshire coastal plain. The Wild Grounds SSSI is designated for the following features and supported species:

- Lowland mire grassland and rush pasture,
- Lowland mixed deciduous woodland,
- Lowland wetland including basin fen, valley fen, floodplain fen, waterfringe fen, spring/flush fen, and raised bog lagg,
- Scrub,
- Wet woodland.

2.6.3 Browndown Site of Special Scientific Interest is an extensive shingle beach comprising a disturbed sequence of apposition ridges supporting three main plant communities. The Browndown SSSI is designated for the following features and supported species:

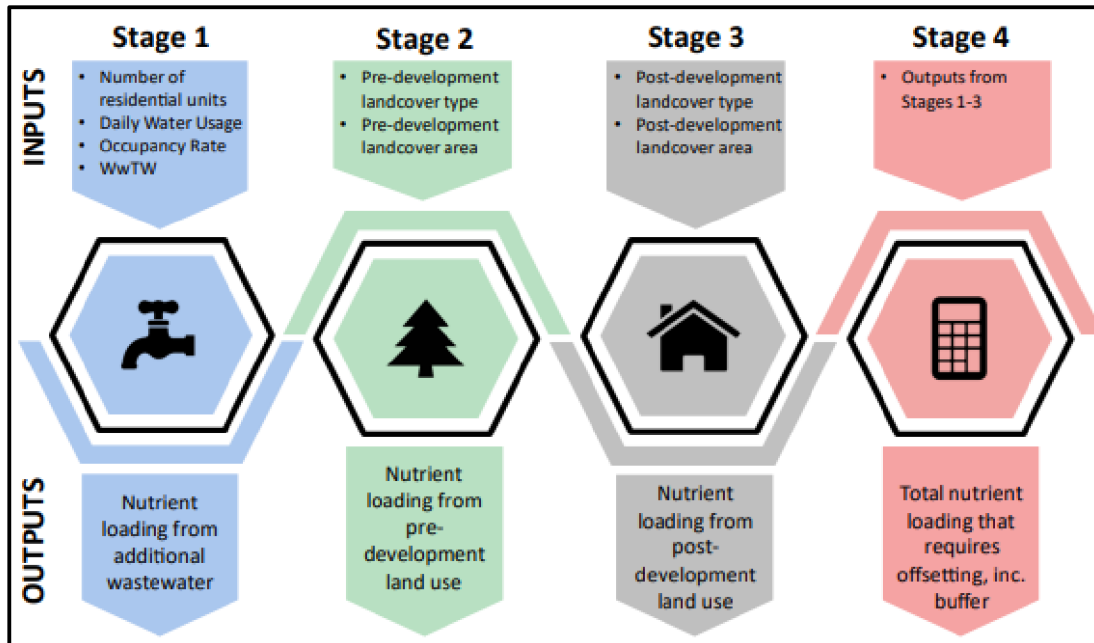
- Coastal Vegetated Shingle,
- Lichen assemblage,
- Lowland dry acid grassland,
- Dotted Sedge,
- Little Robin,
- Nottingham Catchfly,
- Red-Star Thistle,
- Vascular plant assemblage.

3.0 NUTRIENT NEUTRAL ASSESSMENT

3.1 Methodology

- 3.1.1** The occupants residing in the Proposed Development will generate wastewater. Wastewater is enriched in nutrients and following treatment if the additional wastewater discharges to a habitats site it will increase nutrient loadings, posing risks to the ecology of the site.
- 3.1.2** The Proposed Development creates a potential source of water pollution affecting its catchment via its primary generation of foul sewage or ‘black water’ (which would be treated by the appropriate WwTW operated in the Peel Common region by Southern Water). Also, secondary pollution from site runoff from developed surfaces following rainfall or residents water use e.g. garden fertilisers or pet waste entering the surface water drainage system and receiving watercourses (which can be treated using SuDS which are an integral part of the scheme).
- 3.1.3** The Nutrient Neutral Methodology (Version 1 February 2022) is a national generic methodology developed by Natural England which can be used for all affected catchments and sites. The methodology can be used for both phosphorus and nitrogen. It provides a framework and a set of agreed “input values” to enable a nutrient budget to be determined for any development draining into a habitats site. These values are based on updated information and evidence; Natural England considers that they are suitably precautionary and address impacts in perpetuity to remove risks to site integrity beyond reasonable scientific doubt. The nutrient budget calculated should form part of the Appropriate Assessment (AA) of any HRA produced to address nutrient impacts on affected habitats sites.
- 3.1.4** The methodology requires several parameters to be inputted to arrive at an emissions total for the Proposed Development, against which the change of land use can also be discounted.
- 3.1.5** The South Hampshire Councils developed a nutrient calculator for the Solent marine sites ‘Solent Nutrient Budget Calculator’, which was utilised to calculate the total nitrogen budget for the site. The Solent Marine Habitats sites comprise a range of Special Areas of Conservation, Special Protection Areas and Ramsar Sites with water pollution and eutrophication considered a threat to its condition.
- 3.1.6** The nutrient budget calculator requires a set of inputs to calculate a new development’s nutrient budget. The calculations are completed in four stages:
1. Calculate the increase in nutrient loading that comes from a development’s wastewater.
 2. Calculate the pre-existing nutrient load from current land use on the development site.
 3. Calculate the future nutrient load from land use on the development site post-development.
 4. Calculate the net change in nutrient loading from the development to the Solent Marine sites with the addition of a buffer. The net change in nutrient loading plus the buffer is the nutrient budget.
- 3.1.7** These key inputs and outputs for each stage are shown in **Figure 3.1**.

Figure 3.1 - Inputs and Outputs Stage of the Nutrient Budget Calculation Methodology



3.2 Stage 1: Wastewater Production Due to Development

- 3.2.1** It must be noted that the existing development (Haslar IRC Refurbishment) has been excluded from this assessment as its flows are already treated by Peele Common WwTW. This assessment shall include the Proposed Development within Haslar IRC which consists of 4.55ha, details of which are below. It must be noted that the calculations exclude an existing area along the northern boundary that encompasses a section of Fort Road. The area assessed comprises 4.22ha.
- 3.2.2** It should also be noted that the existing IRC has a capacity of 198, which is being reduced to 130 persons as part of Haslar IRC Refurbishment works. However, this change has no effect on the calculations for the Proposed Development area.
- 3.2.3** The proposed occupancy for the Proposed Development is 470 persons.
- 3.2.4** The average occupancy rate per dwelling is 2.00 persons as per the Solent Nutrient Budget Calculator. As the Proposed Development has an occupancy rate of 470 persons, rather than dwellings, this number has been divided by 2.00 to give an indication of dwelling numbers.
- $470 / 2.00$ (persons per dwelling) = **235 dwellings**
- 3.2.5** This figure has been carried forward in the calculations.
- 3.2.6** Water efficiency standards detailed in the Buildings Regulations provide a water efficiency standard for maximum water consumption per person that needs to be achieved for a new residential development. There are three potential categories of water efficiency standard from which the water use per person can be determined depending on what planning conditions are imposed:
- The Building Regulations legal maximum water use per person standard of 125 litres/person/day should be used where no higher standard is secured through a planning condition.
 - The optional higher Building Regulations water use per person standard of 110 litres/person/day should be used where this is secured through a planning condition.

- A water use per person standard that is even higher than the optional higher Building Regulations water efficiency standard where this is secured through a planning condition.

3.2.7 The water usage values are then further increased by 10 litres/day to account for potential changes to less water efficient fittings through the lifetime of the development.

3.2.8 For the development, the increase of 470 persons results in an annual water consumption based on the higher Building Regulations water use per person standard (110/litres/person/day + 10 litres for long term changes in fittings = 120 l/p/d) of:

3.2.9 $470 \text{ persons} \times 120 \text{ l/p/d} \times 365.25 = 20,600,100 \text{ litres/year}$

Concentration of nutrients in wastewater and additional wastewater nutrient load

3.2.10 The nutrient concentration in final effluent from the receiving Peel Common WwTW is 9mg/l, as stated on the Southern Water website.

3.3 Stage 2: Nutrient Loading from Current Land Use

3.3.1 This input determines the amount of nutrients that are currently exported from the land use of the development site. These nutrients will be offset against the new nutrient load generated by the development in wastewater.

3.3.2 The Environment Catchment data explorer details that the site is in the East Hampshire Rivers catchment and underlain by freely draining soils. The annual average rainfall for the area where the site is in the 750.1 to 800mm category as per mapping available on the National River Flow Archive (NRFA) website. The site is detailed to not be in a Nitrate Vulnerable Zones (NVZ).

3.3.3 The outputs for Stage 2, calculates the pre-existing nutrient load from current land use on the site. The areas of the site have been split down depending upon their use and assigned the most appropriate category in the existing land use column of the nutrient budget calculator (the area of each in hectares [ha] has also been detailed. These are as follows:

- Greenspace (3.27ha)
- Shrub (0.77ha)
- Open Urban Land (0.18ha)
- **Equating to a total Site area of 4.22ha**

3.3.4 The resultant calculation details that the existing development has an annual nutrient export of 13.65kg TN.

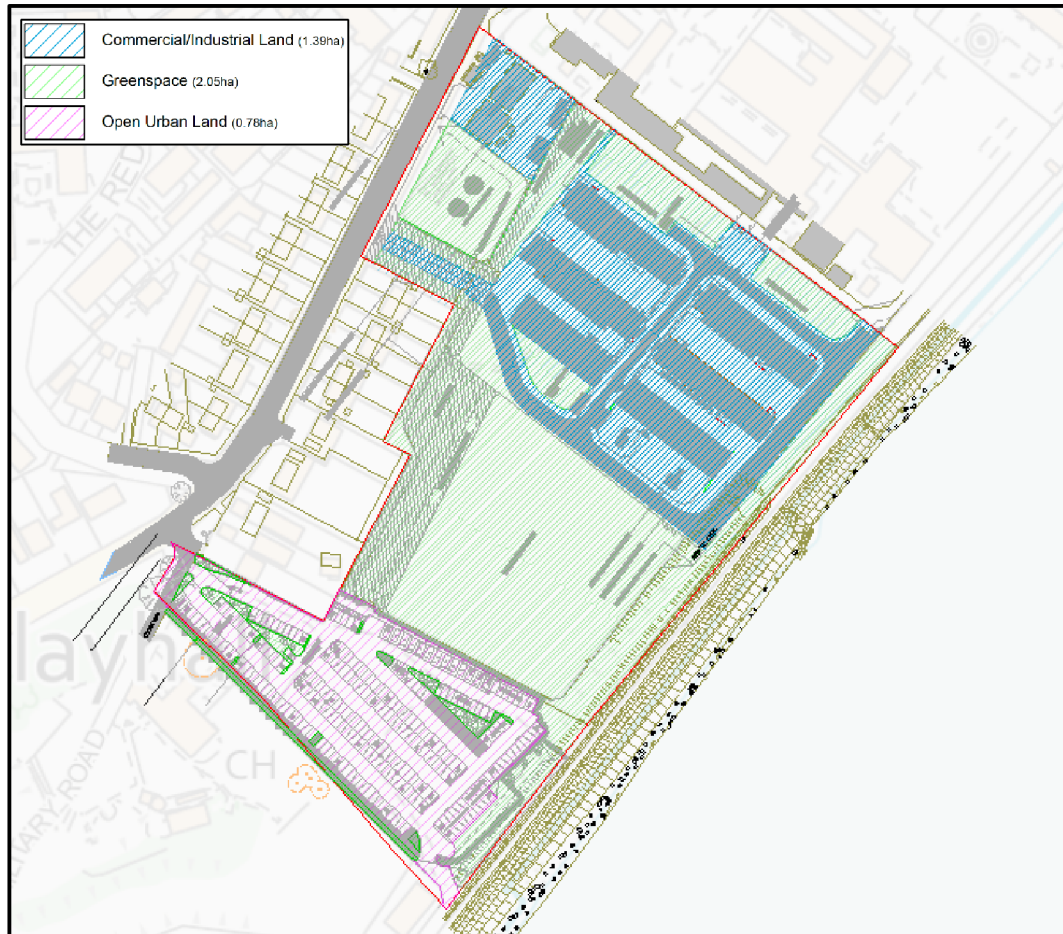
3.4 Stage 3: Nutrient Loading from Future Land Use

3.4.1 Once the Proposed Development site has been built, the land uses will have an associated nutrient export. Stage 3 of the nutrient budget accounts for the export of nutrients from the new land use(s) on the development site. The Proposed Development has been split into the following land use type categories:

- Greenspace (2.05ha)
- Commercial/industrial land (1.39ha)
- Open urban land (0.78ha)
- **Equating to a total Site area of 4.22ha (Figure 3.2).**

3.4.2 The resultant calculation details that the Proposed Development has an annual nutrient export 23.5kg TN, which would require mitigation to address the changes in the nutrient budget.

Figure 3.2 - Indicative Land Use



3.5 Stage 4: Calculation of Nutrient Budget

3.5.1 This final stage of the nutrient budget methodology calculates whether the new development will result in a surplus of nitrogen being exported to a habitats site. If the output of the nutrient budget calculations, including a 20% buffer to ensure robustness, shows that the Proposed Development will result in a surplus of nutrients being exported to a habitats site, this is the amount of nutrient mitigation needed for the development to be “nutrient neutral”. The full calculations are included in **Appendix B**.

3.5.2 The Proposed Development’s nutrient budget = Stage 1 output – Stage 2 output + Stage 3 output.

3.5.3 The addition of a 20% buffer = nutrient budget x 1.2

3.5.4 The nutrient budget (WwTW N limit of 9mg/l) is calculated as:

➤ $166.86\text{kg N/year} [-] 13.65\text{kg N/year} [+] 23.5\text{kg N/year} = \mathbf{176.71\text{kg/year}}$.

3.5.5 With the addition of the 20% precautionary buffer the final output from the nutrient budget and amount of Nitrogen to be emitted is:

➤ $178.84 \times 1.2 = \mathbf{212.05\text{kg N/year}}$.

4.0 MITIGATION STRATEGY

4.1 Mitigation

- 4.1.1** The Solent is a complex site encompassing a major estuarine system on the south coast of England. The Solent and its inlets are unique in Britain and Europe for their hydrographic regime with double tides, as well as for the complexity of the marine and estuarine habitats present within the area. The rich intertidal mudflats, saltmarsh, shingle beaches and adjacent coastal habitats, including grazing marsh, reedbeds and damp woodland, support nationally and internationally important numbers of migratory and over-wintering waders and waterfowl, as well as important breeding gull and tern populations.
- 4.1.2** Increased levels of nitrogen entering aquatic environments via surface water, groundwater, and foul water can severely threaten these sensitive habitats and species within the sites. The elevated levels of nutrients can cause eutrophication, leading to algal blooms which disrupt normal ecosystem function and cause major changes in the aquatic community. These algal blooms can result in reduced levels of oxygen within the water, which in turn can lead to the death of many aquatic organisms including invertebrates and fish.
- 4.1.3** Mitigation of excess nitrogen involves action taken to stop nutrient pollution impacting sites. This could be onsite by preventing nutrient pollution directly from the development in question, or in this case, offsite by reducing nutrients from other sources that affect the site overall.
- 4.1.4** In terms of the mitigation provider and the scheme, Albion Water, who are a regulated statutory undertaker, will be providing the nutrient credits by use of a constructed wetland. This wetland which intercepts the bulk supply of treated water from Knowle Sewage Treatment Works, cleans the water to meet the requirements of nutrient neutrality, before it discharges into the environment. The wetland has obtained detailed planning permission and is currently discharging the four planning conditions aligned to the permission. Nutrient credits shall be bought from this scheme as the form of mitigation.



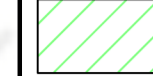
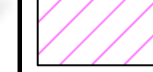
5.0 CONCLUSION

- 5.1 1st Horizon was commissioned to carry out a NNA to support a HRA and outline planning application for the expansion of Haslar IRC, Gosport.
- 5.2 It has been shown that the site itself is not in the water catchment area of the Wild Grounds SSSI and Browndown SSSI but the mains sewers, to which the development is to be attached, are served by Peel Common Wastewater Treatment Works, which is within the water catchment area and so hydrologically linked.
- 5.3 Mitigation is required only in relation to the foul sewage impact and not surface water drainage. Nitrogen is the nutrient of concern as the Solent region is only affected by nitrogen.
- 5.4 The NNA has used the Solent nitrogen budget calculator published by South Hampshire Council to assess and quantify the impacts of TN discharges from the Proposed Development on the internationally designated SSSI sites.
- 5.5 The nitrogen budget for the proposed site was calculated by determining the TN load of the proposed addition of 470 persons in wastewater treated by the receiving Peel Common WwTW. The WwTW permitted consent level used was the current level (9mg TN/litre).
- 5.6 The gross TN load from post development TN load [minus] the baseline TN load was then added to the post-development wastewater load. The result is that the post development site will produce a net TN load of 212.05kg TN/year which must be mitigated to ensure the development is nutrient neutral.
- 5.7 As part of the mitigation scheme, nutrient credits shall be bought from Knowle Sewage Treatment Works wetland scheme.

DRAWINGS:
Indicative Land Use



KEY:

-  Redline Boundary
-  Commercial/Industrial Land (1.39ha)
-  Greenspace (2.05ha)
-  Open Urban Land (0.78ha)



1ST HORIZON

The Old Pop Factory, 88-90 High Street, Dodworth, Barnsley S75 3RQ

SCALE:

1:50,000@A3

DRAWN:

DL

CHECKED:

SD

DATE:

November 2025

PROJECT:

Haslar Nutrient Neutrality

TITLE:

Proposed Land Use

DRAWING NO:

NN-004

APPENDIX A: Indicative Layout

NOTE: THIS IS A CONCEPT DESIGN ONLY

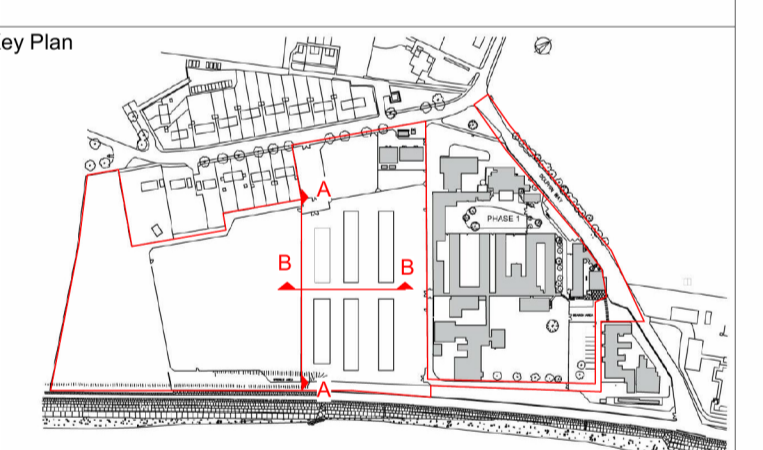
No unauthorised use, disclosure, storage or copying.

Notes

LEGEND

- Site Application Boundary
- Existing Fence
- New Fence
- - - Existing Fence to be removed
- ▲ Main Entrance to the Units
- 3-Storey Accommodation Units
- 1-Storey Units

Rev	Issued by	Issued to	Date	Description
P08	ATR		02/04/2026	For information
P07	ATR		18/03/2026	Car park updated
P06	ATR		08/12/2025	Trees updated as for Arboticultural survey
P05	ATR		29/09/2025	Trees removed
P04	ATR		13/03/2025	Phase 2 Revised Design Final Submission - BPRN updated
P03	ATR		07/02/2025	Car Parking amended
P02	ATR		29/11/2024	Revised Stage 2 packages
P01	ATK	MoJ	29/09/2023	Phase 2 RIBA Stage 2 Final Submission



Project Status

Outline Planning Application

Client Project **Haslar IRC**
Ministry of Justice
 Ministry of Justice, 102 Petty France, London, SW1H 9AJ

Project Description / Site

Indicative New Buildings

Project Address
 Dolphin Way,
 Gosport,
 Hampshire
 PO12 2AW

Building Type
 SITE PLAN

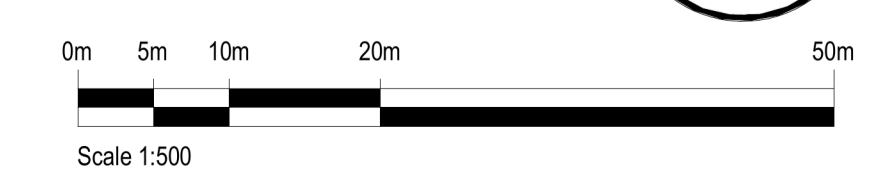
Drawing Title
 INDICATIVE PROPOSED SITE PLAN

Originator Logo	Drawn By: MG
	Checked By: AP
	Approved By: TC

Drawing Number
 323319-15207-ATR-000-GF-DR-A-0250-S2-D0100

Sheet No.	Scale	Orig. Sheet Size	Rev.
1 of 1	1:500	@ A1	P08

Data Security Classification
 OFFICIAL [REDACTED] Suitability
 S2



APPENDIX B: Solent Nutrient Budget Calculations

Nutrients from wastewater		
<p>This sheet contains 2 tables. The tables are separated by a heading, which describes the following table.</p> <p>Note: You will need to fill in cells B5 to B10 in the first table 'Water infrastructure information'. Cell B11 is automatically calculated and will state '0.00' unless the user inputs have been entered. Cells A12 to A13 and B12 to B13 are automatically generated and will state 'Not applicable' depending on the inputs to cells B5 and B10. You may need to fill in cell C11 depending on the information you entered in cell B10. Cells C5 to C10 and cells C12 to C13 are intentionally blank cells. You do not need to fill in any cells in the second table 'Final calculation of nutrient load from wastewater'. Cells B17 to B19 are automatically calculated and will state '0.00' unless the user inputs have been entered to the first table 'Water infrastructure information'. Cells A20 to A23, cell B21 and cell B23 are automatically generated and will state 'Not applicable' depending on the user inputs to the first table 'Water infrastructure information'. Cell B16, cell B20 and cell B22 are intentionally blank cells.</p> <p>How to fill in the table 'Water infrastructure information'</p> <p>Cell B5: Enter the date of first occupancy. Cell B6: Enter the average occupancy rate of the development. The default rate is 2.4, this should not be edited without sufficient evidence. Cell B7: Enter the water usage. This value should be kept at 120 unless other efficiency measures are used. Cell B8: Enter the total number of dwellings or units that will be within the development site as of the project completion date. Cell B9: Choose whether the development can apply deductible acceptable loading from the dropdown list. Cell B10: Choose the receiving wastewater treatment works (WwTW) from the dropdown list. If you select 'Package Treatment Plant user defined' or 'Septic Tank user defined', you must enter their certified value of total nitrogen (TN) in cell C11. Otherwise the default values will be used in the calculation of the nutrient load associated with wastewater.</p> <p>Nutrient permits may be changing for the WwTW you select, from 01/01/2025, or 01/04/2030. If the date of first occupancy is in-between changing permit dates, multiple permit limits may be automatically generated in cells B11 to B13. If applicable, up to 3 values for the nutrient loading associated with wastewater will be presented in cell B19, B21, and B23.</p>		
Water infrastructure information		
Description of required information	Data entry column - user inputs required	Additional data entry column - user inputs may be required
Date of first occupancy (dd/mm/yyyy):	01/01/2026	
Average occupancy rate (people/dwelling or people/unit):	2.00	
Water usage (litres/person/day):	120	
Development proposal (dwellings/units):	235	
Include deductible acceptable loading?	No	
Wastewater treatment works:	Peel Common WwTW	
Current wastewater treatment works N permit (mg TN/litre):	9.00	
Not applicable	Not applicable	
Not applicable	Not applicable	
Final calculation of nutrient load from wastewater		
Description of values generated	Values generated	
Wastewater nutrient loading		
Additional population (people):	470.00	
Wastewater by development (litres/day):	56400.00	
Annual wastewater TN load (kg TN/yr):	166.86	
Not applicable		
Not applicable	Not applicable	
Not applicable		
Not applicable	Not applicable	

Final nutrient budgets

This worksheet contains one table. This table is automatically populated using the outputs from the previous worksheets.

Note: You do not need to fill in any cells in the table. Cells B5 to B8 and cell B10 are automatically calculated and will state '0.00' unless the user inputs have been entered to all of the required worksheets. Cells A11 to A14, cell B12 and cell B14 are automatically generated and will state 'Not applicable' depending on the user inputs to the worksheet 'Nutrients_from_wastewater'. Cell B9, B11 and B13 are intentionally blank.

This table presents calculations that underpin the final annual nutrient budget for the development site. Up to 3 values for the nutrient budget may be presented in cells B10, B12 and B14 for total nitrogen (TN).

Total nutrient budget calculations

Description of values generated	Values generated
Wastewater TN load (kg TN/year):	166.86
Net land use TN change (kg TN/year):	9.85
TN budget:	176.71
TN budget + 20% buffer:	212.05
Annual nutrient budget	
The total annual nitrogen load to mitigate is (kg TN/yr):	212.05
Not applicable	
Not applicable	Not applicable
Not applicable	
Not applicable	Not applicable



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