

Site:	Land at College Road, Campdown
Client:	Dandara Southern Ltd.
Job Number:	784-B038823
Report Type(s):	Nutrient Balancing Assessment
File Location:	\\lds-dc-vm-101\Data\Projects\784-B038823 Campdown\60 Project Output\61 Work in Progress

INTRODUCTION

Tetra Tech was appointed by Dandara Southern Ltd. to calculate the change in nutrient outputs from existing to future use associated with the proposed development at Land at College Road, Campdown.

The proposed development comprises:

The proposed development plans for the site include the creation of 628 residential properties, with associated landscaping, public open space, allotments, sustainable drainage systems (SuDS) and access routes.

The calculations are required in response to recent advice from Natural England to planning authorities in England identifying a large number of catchments where increases in nutrient (nitrogen or phosphorus) outputs could result in a Likely Significant Effect upon Habitats sites in unfavourable condition and sensitive to nutrient concentrations.

Due to the uncertainty over whether new development can be accommodated by existing wastewater treatment infrastructure without causing harm to such sites, Natural England advise that all residential development within affected catchments should achieve nitrogen neutrality.

This report has been prepared by Associate Director David West CEnv MCIEEM and the conditions pertinent to it are provided in Appendix A.

METHODOLOGY

To make the assessment, the following guidance documents were used:

- Advice for development proposals with the potential to affect water quality resulting in adverse nutrient impacts on habitats sites (Natural England, 16th March 2022);
- Nutrient Neutrality Generic Methodology Issue 1 (Natural England and Ricardo Energy and Environment, February 2022);
- Nutrient Budget Calculator Guidance Document (Natural England and Ricardo Energy and Environment, March 2022); and
- Nutrient Neutrality Budget Calculator Solent v.2.3 (Natural England, April 2023).

ASSESSMENT

The assumptions relevant to this project in addition to those included in the updated Natural England methodology are provided in Table 1.

Table 1: Project Assumptions

Number of proposed units:	628
Occupancy rate:	2.36 – based on Havant Borough Council occupancy rate calculator
Water consumption:	120 l/person
The total site area:	26.751 ha
The current land uses are:	Greenspace – 26.751 ha
The future land uses will be:	Residential urban – 15.466 ha Greenspace – 11.138 ha Community food growing – 0.145 ha
The wastewater from the site will be treated at this wastewater treatment works (WwTW):	Budds Farm
The consent limit for the WwWT is:	9.7 mg/l
Surface water catchment:	East Hampshire
Standard annual average rainfall:	800.1-850 mm
Soilscape category:	Impeded drainage
Nitrate Vulnerable Zone:	Yes

The site was formerly grazed but is not currently subject to agricultural management. Future land areas are taken from the Land Use Plan (CB_62_265_002). Residential urban land includes residential, infrastructure, community centre and pump station uses. Greenspace includes open space, play areas, orchard planting and SuDS. Community food growing includes allotments.

The results using the method for determining the nitrogen budget for the proposals are provided in Table 2 and the nutrient budget calculations in Appendix B.

Table 2: Summary of the results

Calculating Total Load From Development Wastewater	Calculating Load From Current Land Use	Calculating Load From Future Land Uses	Calculating Net Change From the Development	Apply 20% Buffer
450.17 kg/TN/yr	80.25 kg/TN/yr	274.02 kg/TN/yr	643.93 kg/TN/yr	772.72 kg/TN/yr

The calculations show that the development would result in an increase of 772.72 kg/TN/yr.

It is therefore considered that the development proposals would have potential to result in an adverse effect on the integrity of Chichester and Langstone Harbours SPA and Ramsar the Solent Maritime SAC and Solent and Isle of Wight Lagoons SAC in the absence of mitigation.

It is proposed that mitigation is provided through the securing of nutrient credits from a suitable mitigation provider for the East Hampshire Rivers catchment. With the securing of credits proving a

nutrient offset of 773 kg/TN/yr via an appropriate legal agreement, a net reduction in TN output would occur and there would be no adverse effect on the integrity of any European site.

Document Control			
Revision:	1	Status:	Final
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Prepared by: David West, Associate Director		Checked & Approved By: Kevin Wood, Associate Ecologist	
Summary of changes: n/a			

APPENDIX A: REPORT CONDITIONS

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APPENDIX B: NUTRIENT BUDGET CALCULATIONS

See attached nutrient budget calculator.

APPENDIX C: OCCUPANCY CALCULATIONS

See attached calculator.

